The Learner Profile

Knowledgeable

Communicators

Reflective

Balanced

Principled

Open-minded

Caring

Thinkers

Inquirers

Risk-takers

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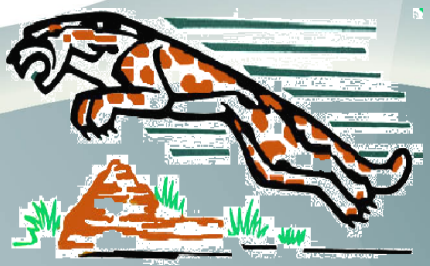

Naseem International School
"STUDENTS FIRST"

مدرسة النسيم الدولية
" الطلبة أولاً "

منهاج المرحلتين المتوسطة و الثانوية

MS/HS Curriculum

2011-2012

نخطو نحو المستقبل ونحن فخورون بمحافظتنا على تقاليدنا العربية الأصيلة

Embracing the future and proudly maintaining our precious culture

Table of Contents

NIS Mission Statement

We, the staff at Naseem International School, are committed to educating the whole person. We aim to provide a balanced education, which enables students to fulfill their potential in all areas of growth -- intellectually, physically, emotionally, spiritually and socially -- and empowers them to become the people they can and want to be.

We realize the importance of students becoming critical thinkers who can take care of themselves and compassionately care for others. Thus, they take an active, responsible part in shaping our society and saving the world.

The IBO Mission Statement

The International Baccalaureate Organization aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the IBO works with schools, governments and international organizations to develop challenging programs of international education and rigorous assessment.

These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be bright.

IB Learner Profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet help to create a better and more peaceful world.
IB learners strive to be:

Inquirers	They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
Knowledgeable	They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across broad and balanced range of disciplines.
Thinkers	They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
Communicators	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
Principled	They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
Open-minded	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of the other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
Caring	They show empathy, compassion and respect towards the needs and feelings of others. They have personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
Risk-takers	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
Balanced	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
Reflective	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

English

The English courses at Naseem are divided into the following: MYP Language A; DP Language A: language and literature; and DP Language B. Our language courses are organized into the following strands: oral communication; reading; writing; and media. Oral Communication involves both listening and speaking skills, where students listen to and respond to the ideas others while contributing their own ideas in conversations, in groups, and in oral presentations. Reading includes the perusal, inspection, and analysis of a wide variety of literary and informational texts. Writing includes the composition of a wide variety of genres and written texts with clear controlling ideas, coherent organization, and sufficient details. Media includes the supplementation or study of the mass media. Language courses also focus on: research skills, where students are expected to know how to locate a range of relevant sources and evaluate, synthesize, and present ideas and information; and oral and written conventions, where students learn how to use the oral and written conventions of the English language. Students will also be trained in ethical practices in terms of proper citation and the Modern Language Association format.

The standards are cumulative; students will continue to address earlier standards as needed while they attend to standards for their grade. In all Middle School and High School grades, students will engage in activities that build on their prior knowledge and skills in order to strengthen their reading, writing, and oral communication skills. Students should read and write on a daily basis. Oral communication and media will naturally be embedded.

Grade 7/ MYP Year 2
Language A

Writing
STANDARD 1: USES THE GENERAL SKILLS AND STRATEGIES OF THE WRITING PROCESS

Benchmark 1 Prewriting: Uses a variety of prewriting strategies
Benchmark 2 Drafting and Revising: Uses a variety of strategies to draft and revise written work
Benchmark 3 Editing and Publishing: Uses a variety of strategies to edit and publish written work
Benchmark 4 Evaluates own and others' writing
Benchmark 5 Uses content, style, and structure appropriate for specific audiences and purposes
Benchmark 6 Writes expository compositions
Benchmark 7 Writes narrative accounts, such as short stories
Benchmark 8 Writes compositions about autobiographical incidents
Benchmark 9 Writes biographical sketches
Benchmark 10 Writes persuasive compositions
Benchmark 11 Writes compositions that address problems/solutions
Benchmark 12 Writes in response to literature

Outcomes:

- Understand and begin to apply language A terminology in context.
- Compose pieces that apply age- appropriate literary and/or non-literary features to serve the context and intention.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Organize ideas and arguments in a coherent and logical manner.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.

Writing
STANDARD 2: USES THE STYLISTIC AND RHETORICAL ASPECTS OF WRITING

Benchmark 1 Uses descriptive language that clarifies and enhances ideas
Benchmark 2 Uses paragraph form in writing
Benchmark 3 Uses a variety of sentence structures to expand and embed ideas
Benchmark 4 Uses explicit transitional devices

Outcomes:

- Understand and begin to apply language A terminology in context.
- Compose pieces that apply age- appropriate literary and/or non-literary features to serve the context and intention.

- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.
- Use appropriate and varied sentence structure.

Writing
STANDARD 3: USES GRAMMATICAL AND MECHANICAL CONVENTIONS IN WRITTEN COMPOSITIONS

Benchmark 1 Uses pronouns in written compositions
Benchmark 2 Uses nouns in written compositions
Benchmark 3 Uses verbs in written compositions
Benchmark 4 Uses adjectives in written compositions
Benchmark 5 Uses adverbs in written compositions
Benchmark 6 Uses prepositions and coordinating conjunctions in written compositions
Benchmark 7 Uses interjections in written compositions
Benchmark 8 Uses conventions of spelling in written compositions
Benchmark 9 Uses conventions of capitalization in written compositions
Benchmark 10 Uses conventions of punctuation in written compositions
Benchmark 11 Uses appropriate format in written compositions

Outcomes:
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.
- Use correct grammar and syntax.
- Use appropriate and varied sentence structure.
- Use correct spelling

Writing
STANDARD 4: GATHERS AND USES INFORMATION FOR RESEARCH PURPOSES

Benchmark 1 Gathers data for research topics from interviews
Benchmark 2 Uses a variety of resource materials to gather information for research topics
Benchmark 3 Organizes information and ideas from multiple sources in systematic ways
Benchmark 5 Uses appropriate methods to cite and document reference sources

Outcomes:
- Recognize and comment on the language, content, structure and meaning of familiar age-appropriate oral, written and visual texts.
- Compare and contrast age-appropriate texts, and connect themes across and within genres.
- Express a relevant personal response to literary and non-literary texts.
- Employ appropriate critical apparatus.

Reading
STANDARD 5: USES THE GENERAL SKILLS AND STRATEGIES OF THE READING PROCESS

Benchmark 1 Establishes and adjusts purposes for reading
Benchmark 3 Uses a variety of strategies to extend reading vocabulary
Benchmark 4 Uses specific strategies to clear up confusing parts of a text
Benchmark 5 Understands specific devices an author uses to accomplish his or her purpose
Benchmark 6 Reflects on what has been learned after reading and formulates ideas, opinions, and personal responses to texts

Outcomes:

- Recognize and comment on the language, content, structure and meaning of familiar age-appropriate oral, written and visual texts.
- Understand some of the effects of the author's choices on an audience.
- Express a relevant personal response to literary and non-literary texts.

Reading
STANDARD 6: USES SKILLS AND STRATEGIES TO READ A VARIETY OF LITERARY TEXTS

Benchmark 1 Reads a variety of literary passages and texts
Benchmark 2 Knows the defining features and structural elements of a variety of literary genres
Benchmark 3 Understands complex elements of plot development
Benchmark 4 Understands elements of character development
Benchmark 5 Understands the use of specific literary devices
Benchmark 8 Understands point of view in a literary text
Benchmark 9 Understands inferred and recurring themes in literary works

Outcomes:

- Recognize and comment on the language, content, structure and meaning of familiar age-appropriate oral, written and visual texts.
- Understand and begin to apply language A terminology in context.
- Understand some of the effects of the author's choices on an audience.
- Compare and contrast age-appropriate texts, and connect themes across and within genres.
- Express a relevant personal response to literary and non-literary texts.

Reading
STANDARD 7: USES SKILLS AND STRATEGIES TO READ A VARIETY OF INFORMATIONAL TEXTS

Benchmark 1 Reads a variety of informational texts
Benchmark 2 Knows the defining structural characteristics and features used in informational texts
Benchmark 3 Summarizes and paraphrases information in texts
Benchmark 4 Uses new information to adjust and extend personal knowledge base
Benchmark 6 Understand the evidence used to support an assertion in informational texts

Outcomes:

- Recognize and comment on the language, content, structure and meaning of familiar age-appropriate oral, written and visual texts.
- Understand and begin to apply language A terminology in context.
- Understand some of the effects of the author's choices on an audience.
- Express a relevant personal response to literary and non-literary texts.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.

Listening and Speaking
STANDARD 8: USES LISTENING AND SPEAKING STRATEGIES FOR DIFFERENT PURPOSES

Benchmark 1 Plays a variety of roles in group discussions
Benchmark 2 Asks questions to seek elaboration and clarification of ideas
Benchmark 3 Uses strategies to enhance listening comprehension
Benchmark 4 Listens in order to understand topic, purpose, and perspective in spoken texts
Benchmark 5 Uses level-appropriate vocabulary in speech
Benchmark 6 Makes oral presentations to the class
Benchmark 7 Uses appropriate verbal and nonverbal techniques for oral presentations

Outcomes:

- Recognize and comment on the language, content, structure and meaning of familiar age-appropriate oral, written and visual texts.
- Understand and begin to apply language A terminology in context.
- Compose pieces that apply age- appropriate literary and/or non-literary features to serve the context and intention.
- Organize ideas and arguments in a coherent and logical manner.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.

Viewing
STANDARD 9: USES VIEWING SKILLS AND STRATEGIES TO UNDERSTAND AND INTERPRET VISUAL MEDIA

Benchmark 1 Understands a variety of messages conveyed by visual media
Benchmark 2 Uses a variety of criteria to evaluate and form viewpoints of visual media
Benchmark 7 Understands reasons for varied interpretations of visual media
Benchmark 8 Knows that people with special interests and expectations are the target audience for particular messages or products in visual media; and knows that design, language, and content reflect this
Benchmark 9 Understands techniques used in visual media to influence or appeal to a particular audience

Outcomes:

- Recognize and comment on the language, content, structure and meaning of familiar age-appropriate oral, written and visual texts.
- Understand some of the effects of the author's choices on an audience.

- Compose pieces that apply age- appropriate literary and/or non-literary features to serve the context and intention.
- Compare and contrast age-appropriate texts, and connect themes across and within genres.
- Organize ideas and arguments in a coherent and logical manner.

Media
STANDARD 10: UNDERSTANDS THE CHARACTERISTICS AND COMPONENTS OF THE MEDIA

Benchmark 2 Understands the different purposes of various media
Benchmark 5 Understands aspects of media production and distribution

Outcomes:

- Recognize and comment on the language, content, structure and meaning of familiar age-appropriate oral, written and visual texts.
- Compose pieces that apply age- appropriate literary and/or non-literary features to serve the context and intention.
- Express a relevant personal response to literary and non-literary texts.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Organize ideas and arguments in a coherent and logical manner.
- Employ appropriate critical apparatus.

Grade 8/ MYP Year 3
Language A

Writing
STANDARD 1: USES THE GENERAL SKILLS AND STRATEGIES OF THE WRITING PROCESS

Benchmark 1 Prewriting: Uses a variety of prewriting strategies
Benchmark 2 Drafting and Revising: Uses a variety of strategies to draft and revise written work
Benchmark 3 Editing and Publishing: Uses a variety of strategies to edit and publish written work
Benchmark 4 Evaluates own and others' writing
Benchmark 5 Uses content, style, and structure appropriate for specific audiences and purposes
Benchmark 6 Writes expository compositions
Benchmark 7 Writes narrative accounts, such as short stories
Benchmark 8 Writes compositions about autobiographical incidents
Benchmark 9 Writes biographical sketches
Benchmark 10 Writes persuasive compositions
Benchmark 11 Writes compositions that address problems/solutions
Benchmark 12 Writes in response to literature

Outcomes:

- Understand and begin to apply language A terminology in context
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types
- Organize ideas and arguments in a coherent and logical manner.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.

Writing
STANDARD 2: USES THE STYLISTIC AND RHETORICAL ASPECTS OF WRITING

Benchmark 1 Uses descriptive language that clarifies and enhances ideas
Benchmark 2 Uses paragraph form in writing
Benchmark 3 Uses a variety of sentence structures to expand and embed ideas
Benchmark 4 Uses explicit transitional devices

Outcomes:

- Understand and begin to apply language a terminology in context.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.

Writing
STANDARD 3: USES GRAMMATICAL AND MECHANICAL CONVENTIONS IN WRITTEN COMPOSITIONS

Benchmark 1 Uses pronouns in written compositions
Benchmark 2 Uses nouns in written compositions
Benchmark 3 Uses verbs in written compositions
Benchmark 4 Uses adjectives in written compositions
Benchmark 5 Uses adverbs in written compositions
Benchmark 6 Uses prepositions and coordinating conjunctions in written compositions
Benchmark 7 Uses interjections in written compositions
Benchmark 8 Uses conventions of spelling in written compositions
Benchmark 9 Uses conventions of capitalization in written compositions
Benchmark 10 Uses conventions of punctuation in written compositions
Benchmark 11 Uses appropriate format in written compositions

Outcomes:

- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.
- Use correct grammar and syntax.
- Use appropriate and varied sentence structure.
- Use correct spelling

Writing
STANDARD 4: GATHERS AND USES INFORMATION FOR RESEARCH PURPOSES

Benchmark 1 Gathers data for research topics from interviews
Benchmark 2 Uses a variety of resource materials to gather information for research topics
Benchmark 3 Organizes information and ideas from multiple sources in systematic ways
Benchmark 5 Uses appropriate methods to cite and document reference sources

Outcomes:

- Appreciate and comment on the language, content, structure, meaning and significance of both familiar and previously unseen age-appropriate oral, written and visual texts.
- Compare and contrast age-appropriate texts, and connect themes across and within genres.
- Begin to express an informed and independent response to literary and non-literary texts.
- Employ appropriate critical apparatus.

Reading
STANDARD 5: USES THE GENERAL SKILLS AND STRATEGIES OF THE READING PROCESS

Benchmark 1 Establishes and adjusts purposes for reading
Benchmark 3 Uses a variety of strategies to extend reading vocabulary
Benchmark 4 Uses specific strategies to clear up confusing parts of a text
Benchmark 5 Understands specific devices an author uses to accomplish his or her purpose

Benchmark 6 Reflects on what has been learned after reading and formulates ideas, opinions, and personal responses to texts

Outcomes:

- Appreciate and comment on the language, content, structure, meaning and significance of both familiar and previously unseen age-appropriate oral, written and visual texts.
- Understand many of the effects of the author's choices on an audience.
- Begin to express an informed and independent response to literary and non-literary texts.

Reading
STANDARD 6: USES SKILLS AND STRATEGIES TO READ A VARIETY OF LITERARY TEXTS

Benchmark 1 Reads a variety of literary passages and texts
Benchmark 2 Knows the defining features and structural elements of a variety of literary genres
Benchmark 3 Understands complex elements of plot development
Benchmark 4 Understands elements of character development
Benchmark 5 Understands the use of specific literary devices
Benchmark 6 Understands the use of language in literary works to convey mood, images, and meaning
Benchmark 8 Understands point of view in a literary text
Benchmark 9 Understands inferred and recurring themes in literary works
Benchmark 10 Makes connections between the motives of characters or the causes for complex events in texts and those in his or her own life

Outcomes:

- Appreciate and comment on the language, content, structure, meaning and significance of both familiar and previously unseen age-appropriate oral, written and visual texts.
- Understand and begin to apply language A terminology in context.
- Understand many of the effects of the author's choices on an audience.
- Compare and contrast age-appropriate texts, and connect themes across and within genres.
- Begin to express an informed and independent response to literary and non-literary texts.

Reading
STANDARD 7: USES SKILLS AND STRATEGIES TO READ A VARIETY OF INFORMATIONAL TEXTS

Benchmark 1 Reads a variety of informational texts
Benchmark 2 Knows the defining structural characteristics and features used in informational texts
Benchmark 3 Summarizes and paraphrases information in texts
Benchmark 4 Uses new information to adjust and extend personal knowledge base
Benchmark 5 Draws conclusions and makes inferences based on explicit and implicit information in texts
Benchmark 6 Understand the evidence used to support an assertion in informational texts

Outcomes:

- Appreciate and comment on the language, content, structure, meaning and significance of both familiar and previously unseen age-appropriate oral, written and visual texts.
- Understand and begin to apply language A terminology in context.
- Understand many of the effects of the author's choices on an audience.
- Begin to express an informed and independent response to literary and non-literary texts.

- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.

Listening and Speaking
STANDARD 8: USES LISTENING AND SPEAKING STRATEGIES FOR DIFFERENT PURPOSES

Benchmark 1 Plays a variety of roles in group discussions
Benchmark 2 Asks questions to seek elaboration and clarification of ideas
Benchmark 3 Uses strategies to enhance listening comprehension
Benchmark 4 Listens in order to understand topic, purpose, and perspective in spoken texts
Benchmark 5 Uses level-appropriate vocabulary in speech
Benchmark 6 Makes oral presentations to the class
Benchmark 7 Uses appropriate verbal and nonverbal techniques for oral presentations
Benchmark 9 Understands the ways in which language differs across a variety of social situations

Outcomes:

- Appreciate and comment on the language, content, structure, meaning and significance of both familiar and previously unseen age-appropriate oral, written and visual texts.
- Understand and begin to apply language A terminology in context.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Organize ideas and arguments in a coherent and logical manner.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.

Viewing
STANDARD 9: USES VIEWING SKILLS AND STRATEGIES TO UNDERSTAND AND INTERPRET VISUAL MEDIA

Benchmark 1 Understands a variety of messages conveyed by visual media
Benchmark 3 Knows typical genre of different visual media
Benchmark 7 Understands reasons for varied interpretations of visual media
Benchmark 8 Knows that people with special interests and expectations are the target audience for particular messages or products in visual media; and knows that design, language, and content reflect this
Benchmark 9 Understands techniques used in visual media to influence or appeal to a particular audience

Outcomes:

- Appreciate and comment on the language, content, structure, meaning and significance of both familiar and previously unseen age-appropriate oral, written and visual texts.
- Understand many of the effects of the author's choices on an audience.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Compare and contrast age-appropriate texts, and connect themes across and within genres.
- Organize ideas and arguments in a coherent and logical manner.

Media
STANDARD 10: UNDERSTANDS THE CHARACTERISTICS AND COMPONENTS OF THE MEDIA

Benchmark 1 Knows characteristics of a wide range of media
Benchmark 2 Understands the different purposes of various media
Benchmark 3 Understands how the type of media affects coverage of events or issues
Benchmark 5 Understands aspects of media production and distribution

Outcomes:

- Appreciate and comment on the language, content, structure, meaning and significance of both familiar and previously unseen age-appropriate oral, written and visual texts.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Begin to express an informed and independent response to literary and non-literary texts.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Organize ideas and arguments in a coherent and logical manner.
- Employ appropriate critical apparatus.

Grade 9/ MYP Year 4
Language A

Writing
STANDARD 1: USES THE GENERAL SKILLS AND STRATEGIES OF THE WRITING PROCESS

Benchmark 1 Prewriting: Uses a variety of prewriting strategies
Benchmark 2 Drafting and Revising: Uses a variety of strategies to draft and revise written work
Benchmark 3 Editing and Publishing: Uses a variety of strategies to edit and publish written work
Benchmark 4 Evaluates own and others' writing
Benchmark 5 Uses strategies to address writing to different audiences
Benchmark 6 Uses strategies to adapt writing for different purposes
Benchmark 7 Writes expository compositions
Benchmark 8 Writes fictional, biographical, autobiographical, and/or observational narrative compositions
Benchmark 9 Writes compositions employing persuasion and argument
Benchmark 10 Writes descriptive compositions
Benchmark 13 Uses appropriate strategies

Outcomes:

- Understand and apply language A terminology in context.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Organize ideas and arguments in a sustained, coherent and logical manner.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.

Writing
STANDARD 2: USES THE STYLISTIC AND RHETORICAL ASPECTS OF WRITING

Benchmark 1 Uses precise and descriptive language that clarifies and enhances ideas and supports different purposes
Benchmark 2 Uses paragraph form in writing
Benchmark 3 Uses a variety of sentence structures and lengths
Benchmark 4 Uses a variety of transitional devices to link sections of a text and clarify relationships among complex ideas
Benchmark 5 Uses a variety of techniques to provide supporting detail
Benchmark 6 Organizes ideas to achieve cohesion in writing
Benchmark 7 Conveys individual voice, tone, and point of view in writing

Outcomes:

- Understand and apply language A terminology in context.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.

- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.
- Use appropriate and varied sentence structure.

Writing
STANDARD 3: USES GRAMMATICAL AND MECHANICAL CONVENTIONS IN WRITTEN COMPOSITIONS

Benchmark 1 Uses pronouns in written compositions
Benchmark 2 Uses nouns in written compositions
Benchmark 3 Uses verbs in written compositions
Benchmark 4 Uses adjectives in written compositions
Benchmark 5 Uses adverbs in written compositions
Benchmark 6 Uses conjunctions to connect or introduce independent and dependent clauses in written compositions
Benchmark 7 Uses conventions of spelling in written compositions
Benchmark 8 Uses conventions of capitalization in written compositions
Benchmark 9 Uses conventions of punctuation in written compositions
Benchmark 10 Uses commonly confused terms correctly in written compositions
Benchmark 11 Uses standard format in written compositions

Outcomes:

- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.
- Use correct grammar and syntax.
- Use appropriate and varied sentence structure.
- Use correct spelling

Writing
STANDARD 4: GATHERS AND USES INFORMATION FOR RESEARCH PURPOSES

Benchmark 1 Uses appropriate research methodology
Benchmark 2 Uses a variety of print and electronic sources to gather information for research topics
Benchmark 3 Uses a variety of primary sources to gather information for research topics
Benchmark 4 Uses a variety of criteria to evaluate the validity, reliability, and usefulness of primary and secondary source information
Benchmark 5 Synthesizes information from multiple sources to draw conclusions that go beyond those found in any of the individual sources
Benchmark 6 Uses systematic strategies to organize and record information
Benchmark 7 Scans a passage to determine whether it contains relevant information
Benchmark 8 Writes research papers
Benchmark 9 Use standard format and methodology for documenting reference sources

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen age – appropriate oral, written and visual texts.
- Compare and contrast works, and connect themes across and within genres.
- Express an informed and independent response to literary and non-literary texts.
- Employ appropriate critical apparatus.

Reading
STANDARD 5: USES THE GENERAL SKILLS AND STRATEGIES OF THE READING PROCESS

Benchmark 1 Uses context to understand figurative, idiomatic, and technical meanings of terms
Benchmark 2 Extends general and specialized reading vocabulary
Benchmark 3 Uses a range of automatic monitoring and self-correction methods
Benchmark 4 Understands writing techniques used to influence the reader and accomplish an author's purpose
Benchmark 5 Understands influences on a reader's response to a text
Benchmark 6 Understands the philosophical assumptions and basic beliefs underlying an author's work

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen age – appropriate oral, written and visual texts.
- Understand many of the effects of the author's choices on an audience.
- Express an informed and independent response to literary and non-literary texts.

Reading
STANDARD 6: USES SKILLS AND STRATEGIES TO READ A VARIETY OF LITERARY TEXTS

Benchmark 1 Reads a variety of literary texts
Benchmark 2 Knows the defining characteristics of a variety of literary forms and genres
Benchmark 3 Analyzes the use of complex elements of plot in specific literary works
Benchmark 4 Analyzes the simple and complex actions between main and subordinate characters in literary works containing complex character structures
Benchmark 5 Knows symbols present in a variety of literary texts
Benchmark 6 Understands how themes are used across literary works and genres
Benchmark 7 Understands the effects of author's style and complex literary devices and techniques on the overall quality of a work
Benchmark 8 Understands relationships between literature and its historical period, culture, and society
Benchmark 9 Makes connections between his or her own life and the characters, events, motives, and causes of conflict in texts
Benchmark 10 Uses language and perspectives of literary criticism to evaluate literary works

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen age – appropriate oral, written and visual texts.
- Understand and apply language A terminology in context.
- Understand many of the effects of the author's choices on an audience.
- Compare and contrast works, and connect themes across and within genres.

- Express an informed and independent response to literary and non-literary texts.

Reading
STANDARD 7: USES SKILLS AND STRATEGIES TO READ A VARIETY OF INFORMATIONAL TEXTS

Benchmark 1 Reads a variety of informational texts
Benchmark 2 Knows the defining characteristics of a variety of informational texts
Benchmark 3 Summarizes and paraphrases complex structures in informational texts
Benchmark 4 Uses a variety of criteria to evaluate the clarity and accuracy of information
Benchmark 5 Uses text features and elements to support inferences and generalizations about information

Outcomes:
- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen age – appropriate oral, written and visual texts.
- Understand and apply language A terminology in context.
- Understand many of the effects of the author's choices on an audience.
- Express an informed and independent response to literary and non-literary texts.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.

Listening and Speaking
STANDARD 8: USES LISTENING AND SPEAKING STRATEGIES FOR DIFFERENT PURPOSES

Benchmark 1 Uses criteria to evaluate own and others' effectiveness in group discussions and formal presentations
Benchmark 2 Asks questions as a way to broaden and enrich classroom discussions
Benchmark 3 Uses a variety of strategies to enhance listening comprehension
Benchmark 4 Adjusts message wording and delivery to particular audiences and for particular purposes
Benchmark 5 Makes formal presentations to the class
Benchmark 6 Makes multimedia presentations using text, images, and sound
Benchmark 7 Uses a variety of verbal and nonverbal techniques for presentations and demonstrates poise and self-control while presenting
Benchmark 8 Responds to questions and feedback about contributions to discussions and formal presentations
Benchmark 9 Understands influences on language use
Benchmark 10 Understands how style and content of spoken language varies in different contexts and how this influences interpretation of these texts

Outcomes:
- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen age – appropriate oral, written and visual texts.
- Understand and apply language A terminology in context.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Organize ideas and arguments in a sustained, coherent and logical manner.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.

Viewing
STANDARD 9: USES VIEWING SKILLS AND STRATEGIES TO UNDERSTAND AND INTERPRET VISUAL MEDIA

Benchmark 1 Uses a range of strategies to interpret visual media
Benchmark 7 Understands how images and sound convey messages in visual media
Benchmark 8 Understands effects of style and language choice in visual media
Benchmark 9 Understands how literary forms can be represented in visual narratives

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen age – appropriate oral, written and visual texts.
- Understand many of the effects of the author's choices on an audience.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Compare and contrast works, and connect themes across and within genres.
- Organize ideas and arguments in a sustained, coherent and logical manner.

Media
STANDARD 10: UNDERSTANDS THE CHARACTERISTICS AND COMPONENTS OF THE MEDIA

Benchmark 2 Understands how different media are structured to present a particular subject or point of view
Benchmark 4 Understands production elements that contribute to the effectiveness of a specific medium
Benchmark 10 Understands the influence of media on society as a whole
Benchmark 12 Understands the role of the media in addressing social and cultural issues

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen age – appropriate oral, written and visual texts.
- Compose pieces that apply age-appropriate literary and/or non-literary features to serve the context and intention.
- Compare and contrast works, and connect themes across and within genres.
- Express an informed and independent response to literary and non-literary texts.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Organize ideas and arguments in a sustained, coherent and logical manner.
- Employ appropriate critical apparatus.

Grade 10/MYP Year 5
Language A

Writing
STANDARD 1: USES THE GENERAL SKILLS AND STRATEGIES OF THE WRITING PROCESS

Benchmark 1 Prewriting: Uses a variety of prewriting strategies
Benchmark 2 Drafting and Revising: Uses a variety of strategies to draft and revise written work
Benchmark 3 Editing and Publishing: Uses a variety of strategies to edit and publish written work
Benchmark 4 Evaluates own and others' writing
Benchmark 5 Uses strategies to address writing to different audiences
Benchmark 6 Uses strategies to adapt writing for different purposes
Benchmark 7 Writes expository compositions
Benchmark 8 Writes fictional, biographical, autobiographical, and/or observational narrative compositions
Benchmark 9 Writes compositions employing persuasion and argument
Benchmark 11 Writes reflective compositions
Benchmark 13 Uses appropriate strategies

Outcomes:

- Understand and apply language A terminology in context.
- Compose pieces that apply appropriate literary and/or non-literary features to serve the context and intention.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Organize ideas and arguments in a sustained, coherent and logical manner.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.

Writing
STANDARD 2: USES THE STYLISTIC AND RHETORICAL ASPECTS OF WRITING

Benchmark 1 Uses precise and descriptive language that clarifies and enhances ideas and supports different purposes
Benchmark 2 Uses paragraph form in writing
Benchmark 3 Uses a variety of sentence structures and lengths
Benchmark 4 Uses a variety of transitional devices to link sections of a text and clarify relationships among complex ideas
Benchmark 5 Uses a variety of techniques to provide supporting detail
Benchmark 6 Organizes ideas to achieve cohesion in writing
Benchmark 7 Conveys individual voice, tone, and point of view in writing

Outcomes:

- Understand and apply language A terminology in context.
- Compose pieces that apply appropriate literary and/or non-literary features to serve the context and intention.

- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.
- Use appropriate and varied sentence structure.

Writing
STANDARD 3: USES GRAMMATICAL AND MECHANICAL CONVENTIONS IN WRITTEN COMPOSITIONS

Benchmark 1 Uses pronouns in written compositions
Benchmark 2 Uses nouns in written compositions
Benchmark 3 Uses verbs in written compositions
Benchmark 4 Uses adjectives in written compositions
Benchmark 5 Uses adverbs in written compositions
Benchmark 6 Uses conjunctions to connect or introduce independent and dependent clauses in written compositions
Benchmark 7 Uses conventions of spelling in written compositions
Benchmark 8 Uses conventions of capitalization in written compositions
Benchmark 9 Uses conventions of punctuation in written compositions
Benchmark 10 Uses commonly confused terms correctly in written compositions
Benchmark 11 Uses standard format in written compositions

Outcomes:

- Use language accurately.
- Use appropriate and varied register, vocabulary and idiom.
- Use correct grammar and syntax.
- Use appropriate and varied sentence structure.
- Use correct spelling

Writing
STANDARD 4: GATHERS AND USES INFORMATION FOR RESEARCH PURPOSES

Benchmark 1 Uses appropriate research methodology
Benchmark 2 Uses a variety of print and electronic sources to gather information for research topics
Benchmark 3 Uses a variety of primary sources to gather information for research topics
Benchmark 4 Uses a variety of criteria to evaluate the validity, reliability, and usefulness of primary and secondary source information
Benchmark 5 Synthesizes information from multiple sources to draw conclusions that go beyond those found in any of the individual sources
Benchmark 6 Uses systematic strategies to organize and record information
Benchmark 7 Scans a passage to determine whether it contains relevant information
Benchmark 8 Writes research papers
Benchmark 9 Use standard format and methodology for documenting reference sources

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen oral, written and visual texts.
- Compare and contrast works, and connect themes across and within genres.
- Express an informed and independent response to literary and non-literary texts.
- Employ appropriate critical apparatus.

Reading
STANDARD 5: USES THE GENERAL SKILLS AND STRATEGIES OF THE READING PROCESS

Benchmark 1 Uses context to understand figurative, idiomatic, and technical meanings of terms
Benchmark 2 Extends general and specialized reading vocabulary
Benchmark 3 Uses a range of automatic monitoring and self-correction methods
Benchmark 4 Understands writing techniques used to influence the reader and accomplish an author's purpose
Benchmark 5 Understands influences on a reader's response to a text
Benchmark 6 Understands the philosophical assumptions and basic beliefs underlying an author's work

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen oral, written and visual texts.
- Analyze the effects of the author's choices on an audience.
- Express an informed and independent response to literary and non-literary texts.

Reading
STANDARD 6: USES SKILLS AND STRATEGIES TO READ A VARIETY OF LITERARY TEXTS

Benchmark 1 Reads a variety of literary texts
Benchmark 2 Knows the defining characteristics of a variety of literary forms and genres
Benchmark 3 Analyzes the use of complex elements of plot in specific literary works
Benchmark 4 Analyzes the simple and complex actions between main and subordinate characters in literary works containing complex character structures
Benchmark 5 Knows symbols present in a variety of literary texts
Benchmark 6 Understands how themes are used across literary works and genres
Benchmark 7 Understands the effects of author's style and complex literary devices and techniques on the overall quality of a work
Benchmark 8 Understands relationships between literature and its historical period, culture, and society
Benchmark 9 Makes connections between his or her own life and the characters, events, motives, and causes of conflict in texts
Benchmark 10 Uses language and perspectives of literary criticism to evaluate literary works

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen oral, written and visual texts.
- Understand and apply language A terminology in context.
- Analyze the effects of the author's choices on an audience.
- Compare and contrast works, and connect themes across and within genres.

- Express an informed and independent response to literary and non-literary texts.

Reading
STANDARD 7: USES SKILLS AND STRATEGIES TO READ A VARIETY OF INFORMATIONAL TEXTS

Benchmark 1 Reads a variety of informational texts
Benchmark 2 Knows the defining characteristics of a variety of informational texts
Benchmark 3 Summarizes and paraphrases complex structures in informational texts
Benchmark 4 Uses a variety of criteria to evaluate the clarity and accuracy of information
Benchmark 5 Uses text features and elements to support inferences and generalizations about information

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen oral, written and visual texts.
- Understand and apply language A terminology in context.
- Analyze the effects of the author's choices on an audience.
- Express an informed and independent response to literary and non-literary texts.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.

Listening and Speaking
STANDARD 8: USES LISTENING AND SPEAKING STRATEGIES FOR DIFFERENT PURPOSES

Benchmark 1 Uses criteria to evaluate own and others' effectiveness in group discussions and formal presentations
Benchmark 2 Asks questions as a way to broaden and enrich classroom discussions
Benchmark 3 Uses a variety of strategies to enhance listening comprehension
Benchmark 4 Adjusts message wording and delivery to particular audiences and for particular purposes
Benchmark 5 Makes formal presentations to the class
Benchmark 6 Makes multimedia presentations using text, images, and sound
Benchmark 7 Uses a variety of verbal and nonverbal techniques for presentations and demonstrates poise and self-control while presenting
Benchmark 8 Responds to questions and feedback about contributions to discussions and formal presentations
Benchmark 9 Understands influences on language use
Benchmark 10 Understands how style and content of spoken language varies in different contexts and how this influences interpretation of these texts

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen oral, written and visual texts.
- Understand and apply language A terminology in context.
- Compose pieces that apply appropriate literary and/or non-literary features to serve the context and intention.
- Organize ideas and arguments in a sustained, coherent and logical manner.
- Use language to narrate, describe, explain, argue, persuade, inform, entertain and express feelings.
- Use language accurately.

Viewing
STANDARD 9: USES VIEWING SKILLS AND STRATEGIES TO UNDERSTAND AND INTERPRET VISUAL MEDIA

Benchmark 1 Uses a range of strategies to interpret visual media
Benchmark 7 Understands how images and sound convey messages in visual media
Benchmark 8 Understands effects of style and language choice in visual media
Benchmark 9 Understands how literary forms can be represented in visual narratives

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen oral, written and visual texts.
- Analyze the effects of the author's choices on an audience.
- Compose pieces that apply appropriate literary and/or non-literary features to serve the context and intention.
- Compare and contrast works, and connect themes across and within genres.
- Organize ideas and arguments in a sustained, coherent and logical manner.

Media
STANDARD 10: UNDERSTANDS THE CHARACTERISTICS AND COMPONENTS OF THE MEDIA

Benchmark 2 Understands how different media are structured to present a particular subject or point of view
Benchmark 4 Understands production elements that contribute to the effectiveness of a specific medium
Benchmark 10 Understands the influence of media on society as a whole
Benchmark 12 Understands the role of the media in addressing social and cultural issues

Outcomes:

- Understand and analyze the language, content, structure, meaning and significance of both familiar and previously unseen oral, written and visual texts.
- Compose pieces that apply appropriate literary and/or non-literary features to serve the context and intention.
- Compare and contrast works, and connect themes across and within genres.
- Express an informed and independent response to literary and non-literary texts.
- Create work that employs organizational structures and language-specific conventions throughout a variety of text types.
- Organize ideas and arguments in a sustained, coherent and logical manner.
- Employ appropriate critical apparatus.

Grade 11
Language A: language and literature

Writing
STANDARD 1: USES THE GENERAL SKILLS AND STRATEGIES OF THE WRITING PROCESS
Benchmark 1 Prewriting: Uses a variety of prewriting strategies
Benchmark 2 Drafting and Revising: Uses a variety of strategies to draft and revise written work
Benchmark 3 Editing and Publishing: Uses a variety of strategies to edit and publish written work
Benchmark 4 Evaluates own and others' writing
Benchmark 5 Uses strategies to address writing to different audiences
Benchmark 6 Uses strategies to adapt writing for different purposes
Benchmark 7 Writes expository compositions
Benchmark 8 Writes fictional, biographical, autobiographical, and/or observational narrative compositions
Benchmark 9 Writes compositions employing persuasion and argument
Benchmark 12 Writes in response to literature
Benchmark 13 Uses appropriate strategies

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an ability to choose a text type appropriate to the purpose required
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- Demonstrate an ability to express ideas clearly and with fluency in both written and oral communication
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning
- AT HL ONLY: Demonstrate an ability to write a balanced comparative analysis

Writing
STANDARD 2: USES THE STYLISTIC AND RHETORICAL ASPECTS OF WRITING

Benchmark 1 Uses precise and descriptive language that clarifies and enhances ideas and supports different purposes
Benchmark 2 Uses paragraph form in writing
Benchmark 3 Uses a variety of sentence structures and lengths
Benchmark 4 Uses a variety of transitional devices to link sections of a text and clarify relationships among complex ideas
Benchmark 5 Uses a variety of techniques to provide supporting detail
Benchmark 6 Organizes ideas to achieve cohesion in writing

Benchmark 7 Conveys individual voice, tone, and point of view in writing
Benchmark 8 Uses idioms in oral and written communication that are appropriate to context and properly formed, as when prepositions follow verbs
Benchmark 9 Uses a consistent style throughout writing

Outcomes:

- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an ability to choose a text type appropriate to the purpose required
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Discuss the different ways in which language and image may be used in a range of texts
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning
- Demonstrate an ability to express ideas clearly and with fluency in both written and oral communication
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Writing

STANDARD 3: USES GRAMMATICAL AND MECHANICAL CONVENTIONS IN WRITTEN COMPOSITIONS

Benchmark 1 Uses pronouns in written compositions
Benchmark 2 Uses nouns in written compositions
Benchmark 3 Uses verbs in written compositions
Benchmark 4 Uses adjectives in written compositions
Benchmark 5 Uses adverbs in written compositions
Benchmark 6 Uses conjunctions to connect or introduce independent and dependent clauses in written compositions
Benchmark 7 Uses conventions of spelling in written compositions
Benchmark 8 Uses conventions of capitalization in written compositions
Benchmark 9 Uses conventions of punctuation in written compositions
Benchmark 10 Uses commonly confused correctly terms in written compositions
Benchmark 11 Uses standard format in written compositions

Outcomes:

- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate an ability to use terminology relevant to the various text types studied
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations

Writing
STANDARD 4: GATHERS AND USES INFORMATION FOR RESEARCH PURPOSES

Benchmark 1 Uses appropriate research methodology
Benchmark 2 Uses a variety of print and electronic sources to gather information for research topics
Benchmark 3 Uses a variety of primary sources to gather information for research topics
Benchmark 4 Uses a variety of criteria to evaluate the validity, reliability, and usefulness of primary and secondary source information
Benchmark 5 Synthesizes information from multiple sources to draw conclusions that go beyond those found in any of the individual sources
Benchmark 6 Uses systematic strategies to organize and record information
Benchmark 7 Scans a passage to determine whether it contains relevant information
Benchmark 8 Writes research papers
Benchmark 9 Use standard format and methodology for documenting reference sources

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to choose a text type appropriate to the purpose required
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning
- AT HL ONLY: Demonstrate an ability to write a balanced comparative analysis

Reading
STANDARD 5: USES THE GENERAL SKILLS AND STRATEGIES OF THE READING PROCESS

Benchmark 1 Uses context to understand figurative, idiomatic, and technical meanings of terms
Benchmark 2 Extends general and specialized reading vocabulary
Benchmark 3 Uses a range of automatic monitoring and self-correction methods
Benchmark 4 Understands writing techniques used to influence the reader and accomplish an author's purpose
Benchmark 5 Understands influences on a reader's response to a text
Benchmark 6 Understands the philosophical assumptions and basic beliefs underlying an author's work
Benchmark 7 Use annotation when reading to enhance comprehension and elaborate ideas

Outcomes:

- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to use terminology relevant to the various text types studied
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Discuss the different ways in which language and image may be used in a range of texts

- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Reading
STANDARD 6: USES SKILLS AND STRATEGIES TO READ A VARIETY OF LITERARY TEXTS

Benchmark 1 Reads a variety of literary texts
Benchmark 2 Knows the defining characteristics of a variety of literary forms and genres
Benchmark 3 Analyzes the use of complex elements of plot in specific literary works
Benchmark 4 Analyzes the simple and complex actions between main and subordinate characters in literary works containing complex character structures
Benchmark 5 Knows symbols present in a variety of literary texts
Benchmark 6 Understands how themes are used across literary works and genres
Benchmark 7 Understands the effects of author's style and complex literary devices and techniques on the overall quality of a work
Benchmark 8 Understands relationships between literature and its historical period, culture, and society
Benchmark 9 Makes connections between his or her own life and the characters, events, motives, and causes of conflict in texts
Benchmark 10 Uses language and perspectives of literary criticism to evaluate literary works

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Reading
STANDARD 7: USES SKILLS AND STRATEGIES TO READ A VARIETY OF INFORMATIONAL TEXTS

Benchmark 1 Reads a variety of informational texts
Benchmark 2 Knows the defining characteristics of a variety of informational texts
Benchmark 3 Summarizes and paraphrases complex structures in informational texts
Benchmark 4 Uses a variety of criteria to evaluate the clarity and accuracy of information
Benchmark 5 Uses text features and elements to support inferences and generalizations about information

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning

- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Listening and Speaking
STANDARD 8: USES LISTENING AND SPEAKING STRATEGIES FOR DIFFERENT PURPOSES

Benchmark 1 Uses criteria to evaluate own and others' effectiveness in group discussions and formal presentations
Benchmark 2 Asks questions as a way to broaden and enrich classroom discussions
Benchmark 3 Uses a variety of strategies to enhance listening comprehension
Benchmark 4 Adjusts message wording and delivery to particular audiences and for particular purposes
Benchmark 5 Makes formal presentations to the class
Benchmark 6 Makes multimedia presentations using text, images, and sound
Benchmark 7 Uses a variety of verbal and nonverbal techniques for presentations and demonstrates poise and self-control while presenting
Benchmark 8 Responds to questions and feedback about contributions to discussions and formal presentations
Benchmark 9 Understands influences on language use
Benchmark 10 Understands how style and content of spoken language varies in different contexts and how this influences interpretation of these texts

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to use terminology relevant to the various text types studied
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to express ideas clearly and with fluency in both written and oral communication
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning

Viewing
STANDARD 9: USES VIEWING SKILLS AND STRATEGIES TO UNDERSTAND AND INTERPRET VISUAL MEDIA

Benchmark 1 Uses a range of strategies to interpret visual media

Benchmark 2 Uses a variety of criteria to evaluate informational media
Benchmark 3 Understands the conventions of visual media genres
Benchmark 4 Understands that the rules and expectations about genres can be manipulated for particular effects or purposes
Benchmark 5 Uses strategies to analyze stereotypes in visual media
Benchmark 6 Understands the connection between context and values projected by visual media
Benchmark 7 Understands how images and sound convey messages in visual media
Benchmark 8 Understands effects of style and language choice in visual media
Benchmark 9 Understands how literary forms can be represented in visual narratives
Benchmark 10 Understands a variety of techniques used in advertising
Benchmark 11 Understands how editing shapes meaning in visual media
Benchmark 12 Understands the effects of visual media on audiences with different backgrounds

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to use terminology relevant to the various text types studied
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Media
STANDARD 10: UNDERSTANDS THE CHARACTERISTICS AND COMPONENTS OF THE MEDIA

Benchmark 1 Understands that media messages have economic, political, social, and aesthetic purposes
Benchmark 2 Understands how different media are structured to present a particular subject or point of view
Benchmark 3 Understands aspects of the construction of media messages and products
Benchmark 4 Understands production elements that contribute to the effectiveness of a specific medium
Benchmark 5 Understands aspects of media ownership and control
Benchmark 6 Understands the influence of different factors on media production, distribution, and advertising
Benchmark 7 Understand different aspects of advertising in media
Benchmark 8 Understands the extent to which audience influences media production
Benchmark 9 Understands the relationship between media and the production and marketing of related products
Benchmark 10 Understands the influence of media on society as a whole
Benchmark 11 Understands legal and ethical responsibilities involved in media use
Benchmark 12 Understands the role of the media in addressing social and cultural issues
Benchmark 13 Knows safe and ethical behaviors in personal electronic communication and interaction
Benchmark 14 Uses principles and techniques to create coherent productions through a variety of media

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning

Grade 11
Language B: English

Writing
STANDARD 1: USES THE GENERAL SKILLS AND STRATEGIES OF THE WRITING PROCESS

Benchmark 1 Prewriting: Uses a variety of prewriting strategies
Benchmark 2 Drafting and Revising: Uses a variety of strategies to draft and revise written work
Benchmark 3 Editing and Publishing: Uses a variety of strategies to edit and publish written work
Benchmark 4 Evaluates own and others' writing
Benchmark 5 Uses strategies to address writing to different audiences
Benchmark 6 Uses strategies to adapt writing for different purposes
Benchmark 7 Writes expository compositions
Benchmark 8 Writes fictional, biographical, autobiographical, and/or observational narrative compositions
Benchmark 9 Writes compositions employing persuasion and argument
Benchmark 12 Writes in response to literature
Benchmark 13 Uses appropriate strategies

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand and use works of literature written in the target language of study

Writing
STANDARD 2: USES THE STYLISTIC AND RHETORICAL ASPECTS OF WRITING

Benchmark 1 Uses precise and descriptive language that clarifies and enhances ideas and supports different purposes
Benchmark 2 Uses paragraph form in writing
Benchmark 3 Uses a variety of sentence structures and lengths
Benchmark 4 Uses a variety of transitional devices to link sections of a text and clarify relationships among complex ideas
Benchmark 5 Uses a variety of techniques to provide supporting detail
Benchmark 6 Organizes ideas to achieve cohesion in writing
Benchmark 7 Conveys individual voice, tone, and point of view in writing

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand and use works of literature written in the target language of study

Writing
STANDARD 3: USES GRAMMATICAL AND MECHANICAL CONVENTIONS IN WRITTEN COMPOSITIONS

Benchmark 1 Uses pronouns in written compositions
Benchmark 2 Uses nouns in written compositions
Benchmark 3 Uses verbs in written compositions
Benchmark 4 Uses adjectives in written compositions
Benchmark 5 Uses adverbs in written compositions
Benchmark 6 Uses conjunctions to connect or introduce independent and dependent clauses in written compositions
Benchmark 7 Uses conventions of spelling in written compositions
Benchmark 8 Uses conventions of capitalization in written compositions
Benchmark 9 Uses conventions of punctuation in written compositions
Benchmark 10 Uses commonly confused terms correctly in written compositions
Benchmark 11 Uses standard format in written compositions

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner

Writing
STANDARD 4: GATHERS AND USES INFORMATION FOR RESEARCH PURPOSES

Benchmark 1 Uses appropriate research methodology
Benchmark 2 Uses a variety of print and electronic sources to gather information for research topics
Benchmark 3 Uses a variety of primary sources to gather information for research topics
Benchmark 4 Uses a variety of criteria to evaluate the validity, reliability, and usefulness of primary and secondary source information
Benchmark 5 Synthesizes information from multiple sources to draw conclusions that go beyond those found in any of the individual sources
Benchmark 6 Uses systematic strategies to organize and record information
Benchmark 7 Scans a passage to determine whether it contains relevant information
Benchmark 8 Writes research papers
Benchmark 9 Use standard format and methodology for documenting reference sources

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts
- Understand and use works of literature written in the target language of study

Reading
STANDARD 5: USES THE GENERAL SKILLS AND STRATEGIES OF THE READING PROCESS

Benchmark 1 Uses context to understand figurative, idiomatic, and technical meanings of terms
Benchmark 2 Extends general and specialized reading vocabulary
Benchmark 3 Uses a range of automatic monitoring and self-correction methods
Benchmark 4 Understands writing techniques used to influence the reader and accomplish an author's purpose
Benchmark 5 Understands influences on a reader's response to a text
Benchmark 6 Understands the philosophical assumptions and basic beliefs underlying an author's work

Outcomes:

- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Understand, analyze and respond to a range of written and spoken texts
- Understand and use works of literature written in the target language of study

Reading
STANDARD 6: USES SKILLS AND STRATEGIES TO READ A VARIETY OF LITERARY TEXTS

Benchmark 1 Reads a variety of literary texts
Benchmark 2 Knows the defining characteristics of a variety of literary forms and genres
Benchmark 3 Analyzes the use of complex elements of plot in specific literary works
Benchmark 4 Analyzes the simple and complex actions between main and subordinate characters in literary works containing complex character structures
Benchmark 5 Knows symbols present in a variety of literary texts
Benchmark 6 Understands how themes are used across literary works and genres
Benchmark 7 Understands the effects of author's style and complex literary devices and techniques on the overall quality of a work
Benchmark 8 Understands relationships between literature and its historical period, culture, and society
Benchmark 9 Makes connections between his or her own life and the characters, events, motives, and causes of conflict in texts
Benchmark 10 Uses language and perspectives of literary criticism to evaluate literary works

Outcomes:

- Use language appropriate to a range of interpersonal and /or cultural contexts
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts
- Understand and use works of literature written in the target language of study

Reading
STANDARD 7: USES SKILLS AND STRATEGIES TO READ A VARIETY OF INFORMATIONAL TEXTS

Benchmark 1 Reads a variety of informational texts
Benchmark 2 Knows the defining characteristics of a variety of informational texts
Benchmark 3 Summarizes and paraphrases complex structures in informational texts
Benchmark 4 Uses a variety of criteria to evaluate the clarity and accuracy of information

Benchmark 5 Uses text features and elements to support inferences and generalizations about information

Outcomes:

- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts
- Understand and use works of literature written in the target language of study

Listening and Speaking
STANDARD 8: USES LISTENING AND SPEAKING STRATEGIES FOR DIFFERENT PURPOSES

Benchmark 1 Uses criteria to evaluate own and others' effectiveness in group discussions and formal presentations
Benchmark 2 Asks questions as a way to broaden and enrich classroom discussions
Benchmark 3 Uses a variety of strategies to enhance listening comprehension
Benchmark 4 Adjusts message wording and delivery to particular audiences and for particular purposes
Benchmark 5 Makes formal presentations to the class
Benchmark 6 Makes multimedia presentations using text, images, and sound
Benchmark 7 Uses a variety of verbal and nonverbal techniques for presentations and demonstrates poise and self-control while presenting
Benchmark 8 Responds to questions and feedback about contributions to discussions and formal presentations
Benchmark 9 Understands influences on language use
Benchmark 10 Understands how style and content of spoken language varies in different contexts and how this influences interpretation of these texts

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts

Viewing
STANDARD 9: USES VIEWING SKILLS AND STRATEGIES TO UNDERSTAND AND INTERPRET VISUAL MEDIA

Benchmark 1 Uses a range of strategies to interpret visual media
Benchmark 2 Uses a variety of criteria to evaluate informational media
Benchmark 3 Understands the conventions of visual media genres
Benchmark 4 Understands that the rules and expectations about genres can be manipulated for particular effects or purposes
Benchmark 5 Uses strategies to analyze stereotypes in visual media
Benchmark 6 Understands the connection between context and values projected by visual media
Benchmark 7 Understands how images and sound convey messages in visual media
Benchmark 8 Understands effects of style and language choice in visual media
Benchmark 9 Understands how literary forms can be represented in visual narratives
Benchmark 10 Understands a variety of techniques used in advertising

Benchmark 11 Understands how editing shapes meaning in visual media
Benchmark 12 Understands the effects of visual media on audiences with different backgrounds

Outcomes:

- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Understand, analyze and respond to a range of written and spoken texts

Media
STANDARD 10: UNDERSTANDS THE CHARACTERISTICS AND COMPONENTS OF THE MEDIA

Benchmark 1 Understands that media messages have economic, political, social, and aesthetic purposes
Benchmark 2 Understands how different media are structured to present a particular subject or point of view
Benchmark 3 Understands aspects of the construction of media messages and products
Benchmark 4 Understands production elements that contribute to the effectiveness of a specific medium
Benchmark 5 Understands aspects of media ownership and control
Benchmark 6 Understands the influence of different factors on media production, distribution, and advertising
Benchmark 7 Understand different aspects of advertising in media
Benchmark 8 Understands the extent to which audience influences media production
Benchmark 9 Understands the relationship between media and the production and marketing of related products
Benchmark 10 Understands the influence of media on society as a whole
Benchmark 11 Understands legal and ethical responsibilities involved in media use
Benchmark 12 Understands the role of the media in addressing social and cultural issues
Benchmark 13 Knows safe and ethical behaviors in personal electronic communication and interaction

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts

Grade 12
Language A: language and literature

Writing
STANDARD 1: USES THE GENERAL SKILLS AND STRATEGIES OF THE WRITING PROCESS
Benchmark 1 Prewriting: Uses a variety of prewriting strategies
Benchmark 2 Drafting and Revising: Uses a variety of strategies to draft and revise written work
Benchmark 3 Editing and Publishing: Uses a variety of strategies to edit and publish written work
Benchmark 4 Evaluates own and others' writing
Benchmark 5 Uses strategies to address writing to different audiences
Benchmark 6 Uses strategies to adapt writing for different purposes
Benchmark 7 Writes expository compositions
Benchmark 8 Writes fictional, biographical, autobiographical, and/or observational narrative compositions
Benchmark 9 Writes compositions employing persuasion and argument
Benchmark 10 Writes descriptive compositions
Benchmark 11 Writes reflective compositions
Benchmark 12 Writes in response to literature
Benchmark 13 Uses appropriate strategies

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an ability to choose a text type appropriate to the purpose required
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- Demonstrate an ability to express ideas clearly and with fluency in both written and oral communication
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning
- AT HL ONLY: Demonstrate an ability to write a balanced comparative analysis

Writing
STANDARD 2: USES THE STYLISTIC AND RHETORICAL ASPECTS OF WRITING

Benchmark 1 Uses precise and descriptive language that clarifies and enhances ideas and supports different purposes
Benchmark 2 Uses paragraph form in writing
Benchmark 3 Uses a variety of sentence structures and lengths
Benchmark 4 Uses a variety of transitional devices to link sections of a text and clarify relationships among complex ideas
Benchmark 5 Uses a variety of techniques to provide supporting detail

Benchmark 6 Organizes ideas to achieve cohesion in writing
Benchmark 7 Conveys individual voice, tone, and point of view in writing
Benchmark 8 Uses idioms in oral and written communication that are appropriate to context and properly formed, as when prepositions follow verbs
Benchmark 9 Uses a consistent style throughout writing

Outcomes:

- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an ability to choose a text type appropriate to the purpose required
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Discuss the different ways in which language and image may be used in a range of texts
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning
- Demonstrate an ability to express ideas clearly and with fluency in both written and oral communication
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Writing

STANDARD 3: USES GRAMMATICAL AND MECHANICAL CONVENTIONS IN WRITTEN COMPOSITIONS

Benchmark 1 Uses pronouns in written compositions
Benchmark 2 Uses nouns in written compositions
Benchmark 3 Uses verbs in written compositions
Benchmark 4 Uses adjectives in written compositions
Benchmark 5 Uses adverbs in written compositions
Benchmark 6 Uses conjunctions to connect or introduce independent and dependent clauses in written compositions
Benchmark 7 Uses conventions of spelling in written compositions
Benchmark 8 Uses conventions of capitalization in written compositions
Benchmark 9 Uses conventions of punctuation in written compositions
Benchmark 10 Uses commonly confused terms correctly in written compositions
Benchmark 11 Uses standard format in written compositions

Outcomes:

- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate an ability to use terminology relevant to the various text types studied
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations

Writing
STANDARD 4: GATHERS AND USES INFORMATION FOR RESEARCH PURPOSES

Benchmark 1 Uses appropriate research methodology
Benchmark 2 Uses a variety of print and electronic sources to gather information for research topics
Benchmark 3 Uses a variety of primary sources to gather information for research topics
Benchmark 4 Uses a variety of criteria to evaluate the validity, reliability, and usefulness of primary and secondary source information
Benchmark 5 Synthesizes information from multiple sources to draw conclusions that go beyond those found in any of the individual sources
Benchmark 6 Uses systematic strategies to organize and record information
Benchmark 7 Scans a passage to determine whether it contains relevant information
Benchmark 8 Writes research papers
Benchmark 9 Use standard format and methodology for documenting reference sources

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to choose a text type appropriate to the purpose required
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning
- AT HL ONLY: Demonstrate an ability to write a balanced comparative analysis

Reading
STANDARD 5: USES THE GENREAL SKILLS AND STRATEGIES OF THE READING PROCESS

Benchmark 1 Uses context to understand figurative, idiomatic, and technical meanings of terms
Benchmark 2 Extends general and specialized reading vocabulary
Benchmark 3 Uses a range of automatic monitoring and self-correction methods
Benchmark 4 Understands writing techniques used to influence the reader and accomplish an author's purpose
Benchmark 5 Understands influences on a reader's response to a text
Benchmark 6 Understands the philosophical assumptions and basic beliefs underlying an author's work
Benchmark 7 Use annotation when reading to enhance comprehension and elaborate ideas

Outcomes:

- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to use terminology relevant to the various text types studied
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Demonstrate an ability to substantiate and justify ideas with relevant examples

- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Reading
STANDARD 6: USES SKILLS AND STRATEGIES TO READ A VARIETY OF LITERARY TEXTS

Benchmark 1 Reads a variety of literary texts
Benchmark 2 Knows the defining characteristics of a variety of literary forms and genres
Benchmark 3 Analyzes the use of complex elements of plot in specific literary works
Benchmark 4 Analyzes the simple and complex actions between main and subordinate characters in literary works containing complex character structures
Benchmark 5 Knows symbols present in a variety of literary texts
Benchmark 6 Understands how themes are used across literary works and genres
Benchmark 7 Understands the effects of author's style and complex literary devices and techniques on the overall quality of a work
Benchmark 8 Understands relationships between literature and its historical period, culture, and society
Benchmark 9 Makes connections between his or her own life and the characters, events, motives, and causes of conflict in texts
Benchmark 10 Uses language and perspectives of literary criticism to evaluate literary works

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Reading
STANDARD 7: USES SKILLS AND STRATEGIES TO READ A VARIETY OF INFORMATIONAL TEXTS

Benchmark 1 Reads a variety of informational texts
Benchmark 2 Knows the defining characteristics of a variety of informational texts
Benchmark 3 Summarizes and paraphrases complex structures in informational texts
Benchmark 4 Uses a variety of criteria to evaluate the clarity and accuracy of information
Benchmark 5 Uses text features and elements to support inferences and generalizations about information

Outcomes:

- Demonstrate knowledge and understanding of a range of texts

- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Listening and Speaking
STANDARD 8: USES LISTENING AND SPEAKING STRATEGIES FOR DIFFERENT PURPOSES

Benchmark 1 Uses criteria to evaluate own and others' effectiveness in group discussions and formal presentations
Benchmark 2 Asks questions as a way to broaden and enrich classroom discussions
Benchmark 3 Uses a variety of strategies to enhance listening comprehension
Benchmark 4 Adjusts message wording and delivery to particular audiences and for particular purposes
Benchmark 5 Makes formal presentations to the class
Benchmark 6 Makes multimedia presentations using text, images, and sound
Benchmark 7 Uses a variety of verbal and nonverbal techniques for presentations and demonstrates poise and self-control while presenting
Benchmark 8 Responds to questions and feedback about contributions to discussions and formal presentations
Benchmark 9 Understands influences on language use
Benchmark 10 Understands how style and content of spoken language varies in different contexts and how this influences interpretation of these texts

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to use terminology relevant to the various text types studied
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to express ideas clearly and with fluency in both written and oral communication
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning

Viewing
STANDARD 9: USES VIEWING SKILLS AND STRATEGIES TO UNDERSTAND AND INTERPRET VISUAL MEDIA

Benchmark 1 Uses a range of strategies to interpret visual media
Benchmark 2 Uses a variety of criteria to evaluate informational media
Benchmark 3 Understands the conventions of visual media genres
Benchmark 4 Understands that the rules and expectations about genres can be manipulated for particular effects or purposes
Benchmark 5 Uses strategies to analyze stereotypes in visual media
Benchmark 6 Understands the connection between context and values projected by visual media
Benchmark 7 Understands how images and sound convey messages in visual media
Benchmark 8 Understands effects of style and language choice in visual media
Benchmark 9 Understands how literary forms can be represented in visual narratives
Benchmark 10 Understands a variety of techniques used in advertising
Benchmark 11 Understands how editing shapes meaning in visual media
Benchmark 12 Understands the effects of visual media on audiences with different backgrounds

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an understanding of how different perspectives influence the reading of a text
- Demonstrate an ability to use terminology relevant to the various text types studied
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to discuss and analyze texts in a focused and logical manner

Media
STANDARD 10: UNDERSTANDS THE CHARACTERISTICS AND COMPONENTS OF THE MEDIA

Benchmark 1 Understands that media messages have economic, political, social, and aesthetic purposes
Benchmark 2 Understands how different media are structured to present a particular subject or point of view
Benchmark 3 Understands aspects of the construction of media messages and products
Benchmark 4 Understands production elements that contribute to the effectiveness of a specific medium
Benchmark 5 Understands aspects of media ownership and control
Benchmark 6 Understands the influence of different factors on media production, distribution, and advertising
Benchmark 7 Understand different aspects of advertising in media
Benchmark 8 Understands the extent to which audience influences media production
Benchmark 9 Understands the relationship between media and the production and marketing of related products
Benchmark 10 Understands the influence of media on society as a whole
Benchmark 11 Understands legal and ethical responsibilities involved in media use

Benchmark 12 Understands the role of the media in addressing social and cultural issues
Benchmark 13 Knows safe and ethical behaviors in personal electronic communication and interaction
Benchmark 14 Uses principles and techniques to create coherent productions through a variety of media

Outcomes:

- Demonstrate knowledge and understanding of a range of texts
- Demonstrate an understanding of the use of language, structure, technique and style
- Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
- Demonstrate an ability to analyze the effects of language, structure, technique and style on the reader
- Demonstrate an ability to substantiate and justify ideas with relevant examples
- Demonstrate an ability to compare and contrast the formal elements, content and context of texts
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- Demonstrate an ability to use the oral and written forms of language, in a range of style, registers and situations
- AT HL ONLY: produce a critical response evaluating some aspects of text, context and meaning

Grade 12
Language B: English

Writing
STANDARD 1: USES THE GENERAL SKILLS AND STRATEGIES OF THE WRITING PROCESS

Benchmark 1 Prewriting: Uses a variety of prewriting strategies
Benchmark 2 Drafting and Revising: Uses a variety of strategies to draft and revise written work
Benchmark 3 Editing and Publishing: Uses a variety of strategies to edit and publish written work
Benchmark 4 Evaluates own and others' writing
Benchmark 5 Uses strategies to address writing to different audiences
Benchmark 6 Uses strategies to adapt writing for different purposes
Benchmark 7 Writes expository compositions
Benchmark 8 Writes fictional, biographical, autobiographical, and/or observational narrative compositions
Benchmark 9 Writes compositions employing persuasion and argument
Benchmark 10 Writes descriptive compositions
Benchmark 11 Writes reflective compositions
Benchmark 12 Writes in response to literature
Benchmark 13 Uses appropriate strategies

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand and use works of literature written in the target language of study

Writing
STANDARD 2: USES THE STYLISTIC AND RHETORICAL ASPECTS OF WRITING

Benchmark 1 Uses precise and descriptive language that clarifies and enhances ideas and supports different purposes
Benchmark 2 Uses paragraph form in writing
Benchmark 3 Uses a variety of sentence structures and lengths
Benchmark 4 Uses a variety of transitional devices to link sections of a text and clarify relationships among complex ideas
Benchmark 5 Uses a variety of techniques to provide supporting detail
Benchmark 6 Organizes ideas to achieve cohesion in writing
Benchmark 7 Conveys individual voice, tone, and point of view in writing

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Organize ideas on a range of topics, in a clear, coherent and convincing manner

- Understand and use works of literature written in the target language of study

Writing
STANDARD 3: USES GRAMMATICAL AND MECHANICAL CONVENTIONS IN WRITTEN COMPOSITIONS

Benchmark 1 Uses pronouns in written compositions
Benchmark 2 Uses nouns in written compositions
Benchmark 3 Uses verbs in written compositions
Benchmark 4 Uses adjectives in written compositions
Benchmark 5 Uses adverbs in written compositions
Benchmark 6 Uses conjunctions to connect or introduce independent and dependent clauses in written compositions
Benchmark 7 Uses conventions of spelling in written compositions
Benchmark 8 Uses conventions of capitalization in written compositions
Benchmark 9 Uses conventions of punctuation in written compositions
Benchmark 10 Uses commonly confused terms correctly in written compositions
Benchmark 11 Uses standard format in written compositions

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner

Writing
STANDARD 4: GATHERS AND USES INFORMATION FOR RESEARCH PURPOSES

Benchmark 1 Uses appropriate research methodology
Benchmark 2 Uses a variety of print and electronic sources to gather information for research topics
Benchmark 3 Uses a variety of primary sources to gather information for research topics
Benchmark 4 Uses a variety of criteria to evaluate the validity, reliability, and usefulness of primary and secondary source information
Benchmark 5 Synthesizes information from multiple sources to draw conclusions that go beyond those found in any of the individual sources
Benchmark 6 Uses systematic strategies to organize and record information
Benchmark 7 Scans a passage to determine whether it contains relevant information
Benchmark 8 Writes research papers
Benchmark 9 Use standard format and methodology for documenting reference sources

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts

- Understand and use works of literature written in the target language of study

Reading
STANDARD 5: USES THE GENERAL SKILLS AND STRATEGIES OF THE READING PROCESS

Benchmark 1 Uses context to understand figurative, idiomatic, and technical meanings of terms
Benchmark 2 Extends general and specialized reading vocabulary
Benchmark 3 Uses a range of automatic monitoring and self-correction methods
Benchmark 4 Understands writing techniques used to influence the reader and accomplish an author's purpose
Benchmark 5 Understands influences on a reader's response to a text
Benchmark 6 Understands the philosophical assumptions and basic beliefs underlying an author's work

Outcomes:

- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Understand, analyze and respond to a range of written and spoken texts
- Understand and use works of literature written in the target language of study

Reading
STANDARD 6: USES SKILLS AND STRATEGIES TO READ A VARIETY OF LITERARY TEXTS

Benchmark 1 Reads a variety of literary texts
Benchmark 2 Knows the defining characteristics of a variety of literary forms and genres
Benchmark 3 Analyzes the use of complex elements of plot in specific literary works
Benchmark 4 Analyzes the simple and complex actions between main and subordinate characters in literary works containing complex character structures
Benchmark 5 Knows symbols present in a variety of literary texts
Benchmark 6 Understands how themes are used across literary works and genres
Benchmark 7 Understands the effects of author's style and complex literary devices and techniques on the overall quality of a work
Benchmark 8 Understands relationships between literature and its historical period, culture, and society
Benchmark 9 Makes connections between his or her own life and the characters, events, motives, and causes of conflict in texts
Benchmark 10 Uses language and perspectives of literary criticism to evaluate literary works

Outcomes:

- Use language appropriate to a range of interpersonal and /or cultural contexts
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts
- Understand and use works of literature written in the target language of study

Reading
STANDARD 7: USES SKILLS AND STRATEGIES TO READ A VARIETY OF INFORMATIONAL TEXTS

Benchmark 1 Reads a variety of informational texts

Benchmark 2 Knows the defining characteristics of a variety of informational texts
Benchmark 3 Summarizes and paraphrases complex structures in informational texts
Benchmark 4 Uses a variety of criteria to evaluate the clarity and accuracy of information
Benchmark 5 Uses text features and elements to support inferences and generalizations about information

Outcomes:

- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts
- Understand and use works of literature written in the target language of study

Listening and Speaking
STANDARD 8: USES LISTENING AND SPEAKING STRATEGIES FOR DIFFERENT PURPOSES

Benchmark 1 Uses criteria to evaluate own and others' effectiveness in group discussions and formal presentations
Benchmark 2 Asks questions as a way to broaden and enrich classroom discussions
Benchmark 3 Uses a variety of strategies to enhance listening comprehension
Benchmark 4 Adjusts message wording and delivery to particular audiences and for particular purposes
Benchmark 5 Makes formal presentations to the class
Benchmark 6 Makes multimedia presentations using text, images, and sound
Benchmark 7 Uses a variety of verbal and nonverbal techniques for presentations and demonstrates poise and self-control while presenting
Benchmark 8 Responds to questions and feedback about contributions to discussions and formal presentations
Benchmark 9 Understands influences on language use
Benchmark 10 Understands how style and content of spoken language varies in different contexts and how this influences interpretation of these texts

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts

Viewing
STANDARD 9: USES VIEWING SKILLS AND STRATEGIES TO UNDERSTAND AND INTERPRET VISUAL MEDIA

Benchmark 1 Uses a range of strategies to interpret visual media
Benchmark 2 Uses a variety of criteria to evaluate informational media
Benchmark 3 Understands the conventions of visual media genres
Benchmark 4 Understands that the rules and expectations about genres can be manipulated for particular effects or purposes
Benchmark 5 Uses strategies to analyze stereotypes in visual media
Benchmark 6 Understands the connection between context and values projected by visual media
Benchmark 7 Understands how images and sound convey messages in visual media
Benchmark 8 Understands effects of style and language choice in visual media

Benchmark 9 Understands how literary forms can be represented in visual narratives
Benchmark 10 Understands a variety of techniques used in advertising
Benchmark 11 Understands how editing shapes meaning in visual media
Benchmark 12 Understands the effects of visual media on audiences with different backgrounds

Outcomes:

- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Understand, analyze and respond to a range of written and spoken texts

Media
STANDARD 10: UNDERSTANDS THE CHARACTERISTICS AND COMPONENTS OF THE MEDIA

Benchmark 1 Understands that media messages have economic, political, social, and aesthetic purposes
Benchmark 2 Understands how different media are structured to present a particular subject or point of view
Benchmark 3 Understands aspects of the construction of media messages and products
Benchmark 4 Understands production elements that contribute to the effectiveness of a specific medium
Benchmark 5 Understands aspects of media ownership and control
Benchmark 6 Understands the influence of different factors on media production, distribution, and advertising
Benchmark 7 Understand different aspects of advertising in media
Benchmark 8 Understands the extent to which audience influences media production
Benchmark 9 Understands the relationship between media and the production and marketing of related products
Benchmark 10 Understands the influence of media on society as a whole
Benchmark 11 Understands legal and ethical responsibilities involved in media use
Benchmark 12 Understands the role of the media in addressing social and cultural issues
Benchmark 13 Knows safe and ethical behaviors in personal electronic communication and interaction

Outcomes:

- Communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- Use language appropriate to a range of interpersonal and /or cultural contexts
- Understand and use language to express and respond to a range of ideas with accuracy and fluency
- Organize ideas on a range of topics, in a clear, coherent and convincing manner
- Understand, analyze and respond to a range of written and spoken texts

Naseem International School
Middle School
Marking Policy

Purposes of a marking policy
The purpose of this policy is to make explicit how teachers mark children's work, standardize the way in which we mark, maintain consistency throughout the elementary school, ensure that marking is used constructively and to provide feedback to students. Teachers need to be aware that all work on public display must be edited and corrected, if not, it must be labeled a "draft". (We call this model on display conventionally correct)

What are the principles that need to guide the schools approach to marking?

- Be manageable for teachers and beneficial to children;
- Give recognition and praise for achievement and clear strategies for improvement;
- Ultimately be seen by children as a positive approach to improving their learning.
- Discuss and reflect on the student writing ***with*** the student. Student conferencing should be an integeral part of language development.

Purposes of Marking

- To provide constructive and meaningful feedback to students
- To promote learning
- To motivate students to improve
- To close the gap between what students can currently do and what we would like them to be able to do
- To enable students to become reflective learners
- To highlight individual needs
- To correct errors and clarify any misunderstandings
- To encourage dialogue between teacher and student
- To set attainable goals for students
- To guide future planning

How do we mark students' work?

- Marking should be clear
- A different writing tool to that a student used must be used by teacher
- Children's work needs to be marked in a colour that can be clearly seen.
- We use two forms of marking feedback: Oral and Written

What is quality marking?
This is used when a child has done a substantial piece of work and it has to be marked away from the child. Teachers focus on both successes against the learning objective.

When quality marking teachers:

- Read the entire piece of work.
- Provide a focused comment which should help the child to 'close the gap' between what they have achieved and what they could have achieved.

What other styles of marking do teachers use?

- A tick and an initial
- Self editing/marking

- Shared Marking
- Peered Editing: children sometimes mark any work in pairs. The following points are important:
- Children need to be trained to do this through modeling with the whole class, watching the peer editing in action.
- Ground rules should be decided as a class and adhered to.
- Children should first point out things that they like and then suggest a way to improve the piece but only against the learning objective

Other considerations:

- Work must be marked (conventionally correct) before being placed on display. Editing should be evident in these pieces of work, but a grade should not be visible.
- Written comments must be linked to the objective and offer suggestions for improvement(s).
- Marking will be completed promptly and accurately.

Assessment in the MYP
Review of policy.
This policy will be shared at the beginning of each academic year and reviewed at the end.

There is no external assessment provided by the IB for the MYP and therefore no formal externally set or marked examinations. All assessment in the MYP is carried out by teachers in participating schools and relies on their professional expertise in making qualitative judgments, as they do every day in the classroom. In line with the general IB assessment philosophy, a norm-referenced approach to assessment is not appropriate to the MYP. Instead, MYP schools must follow a criterion-related approach. This means that students' work must be assessed against defined assessment criteria and not against the work of other students.

The IB moderation and monitoring of assessment procedures ensure that the final judgments made by these teachers all conform to an agreed scale of measurement on common criteria.

It is expected that the procedures for assessment and the MYP assessment criteria are shared with both students and parents as an aid to the learning process.

Using the assessment criteria

The assessment criteria published in this guide correspond to the objectives of this subject group. The achievement levels described have been written with year 5 final assessment in mind.

All schools **must** use the assessment criteria published in this guide for final assessment, although local or national requirements may involve other assessment models and criteria as well.

In years 1–4, schools may modify the descriptors of the achievement levels for each criterion according to the progression of learning organized by them and guided by the interim objectives. These modified criteria must be based on the MYP principles of assessment and must provide for a coherent approach to assessment practices over the entire programme. Schools may add other criteria, in addition to the MYP criteria, in response to national requirements and report on these internally to parents and students.

Clarifying published criteria in year 5

During the final year of the programme, the final assessment criteria as published in each subject-group guide must be used when awarding levels. However, specific expectations of students for a given task must still be defined.

Teachers will need to clarify the expectations of any given task with direct reference to the published assessment criteria. For example, in language A, teachers will need to clarify exactly what "sophisticated organizational structures" means in the context of a given assessment task. This might be in the form of:

- a task-specific clarification of the criteria, using the published criteria but with some wording changed to match the task
- an oral discussion of the expectations
- a task sheet that explains the expectations.

It is important that teachers specify the expected outcomes at the beginning of each individual task so that students are aware of what is required.

When clarifying expectations, teachers must ensure that they do not alter the standard expected in the published criteria, nor introduce new aspects. When awarding levels in year 5, teachers themselves should always use the published criteria.

Please also see the "Language A: Moderation" section for guidance on what is required as part of background information.

The "best-fit" approach

The descriptors for each criterion are hierarchical. When assessing a student's work, teachers should read the descriptors (starting with level 0) until they reach a descriptor that describes an achievement level that the work being assessed has **not** attained. The work is therefore best described by the preceding descriptor.

Where it is not clearly evident which level descriptor should apply, teachers must use their judgment to select the descriptor that best matches the student's work overall. The "best-fit" approach allows teachers to select the achievement level that best describes the piece of work being assessed.

If the work is a strong example of achievement in a band, the teacher should give it the higher achievement level in the band. If the work is a weak example of achievement in that band, the teacher should give it the lower achievement level in the band.

Further guidance

Only whole numbers should be recorded; partial levels, fractions and decimals are not acceptable.

The levels attributed to the descriptors must not be considered as fixed percentages, nor should it be assumed that there are arithmetical relationships between descriptors. For example, a level 4 performance is not necessarily twice as good as a level 2 performance.

Teachers should not think in terms of a pass or fail boundary for each criterion, or make comparisons with, or conversions to, the IB 1–7 grade scale, but should concentrate on identifying the appropriate descriptor for each assessment criterion.

The highest descriptors do not imply faultless performance, but should be achievable by students at the end of the programme. Teachers should therefore not hesitate to use the highest and lowest levels if they are appropriate descriptors for the work being assessed.

A student who attains a high achievement level for one criterion will not necessarily reach high achievement levels for the other criteria. Similarly, a student who attains a low achievement level for one criterion will not necessarily attain low achievement levels for the other criteria.

Teachers should not assume that the results of a group of students being assessed will follow any particular distribution plan.

Further information on MYP assessment can be found in the document *MYP: From principles into practice* (August 2008) in the section "Assessment".

Naseem International School
High School
Marking Policy

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Review of policy.
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Assessment in the DP

General

Assessment is an integral part of teaching and learning. The most important aims of assessment in the Diploma Programme are that it should support curricular goals and encourage appropriate student learning. Both external and internal assessment are used in the Diploma Programme. IB examiners mark work produced for external assessment, while work produced for internal assessment is marked by teachers and externally moderated by the IB.

There are two types of assessment identified by the IB.

- Formative assessment informs both teaching and learning. It is concerned with providing accurate and helpful feedback to students and teachers on the kind of learning taking place and the nature of students' strengths and weaknesses in order to help develop students' understanding and capabilities. Formative assessment can also help to improve teaching quality, as it can provide information to monitor progress towards meeting the course aims and objectives.

- Summative assessment gives an overview of previous learning and is concerned with measuring student achievement.

The Diploma Programme primarily focuses on summative assessment designed to record student achievement at, or towards the end of, the course of study. However, many of the assessment instruments can also be used formatively during the course of teaching and learning, and teachers are encouraged to do this. A comprehensive assessment plan is viewed as being integral with teaching, learning and course organization. For further information, see the IB *Programme standards and practices* document.
The approach to assessment used by the IB is criterion-related, not norm-referenced. This approach to assessment judges students' work by their performance in relation to identified levels of attainment, and not in relation to the work of other students. For further information on assessment within the Diploma Programme please refer to the publication *Diploma Programme assessment: Principles and practice*.

To support teachers in the planning, delivery and assessment of the Diploma Programme courses, a variety of resources can be found on the OCC or purchased from the IB store (http://store.ibo.org). Teacher support materials, subject reports, internal assessment guidance, grade descriptors, as well as resources from other teachers, can be found on the OCC. Specimen and past examination papers, as well as markschemes, can be purchased from the IB store.

Methods of assessment

The IB uses several methods to assess work produced by students.

Assessment criteria

Assessment criteria are used when the assessment task is open-ended. Each criterion concentrates on a particular skill that students are expected to demonstrate. An assessment objective describes what students should be able to do, and assessment criteria describe how well they should be able to do it. Using assessment criteria allows discrimination between different answers and encourages a variety of responses. Each criterion comprises a set of hierarchically ordered level descriptors. Each level descriptor is worth one or more marks. Each criterion is applied independently using a best-fit model. The maximum marks for each criterion may differ according to the criterion's importance. The marks awarded for each criterion are added together to give the total mark for the piece of work.

Markbands

Markbands are a comprehensive statement of expected performance against which responses are judged. They represent a single holistic criterion divided into level descriptors. Each level descriptor corresponds to a range of marks to differentiate student performance. A best-fit approach is used to ascertain which particular mark to use from the possible range for each level descriptor.

Markschemes

This generic term is used to describe analytic markschemes that are prepared for specific examination papers. Analytic markschemes are prepared for those examination questions that expect a particular kind of response and/or a given final answer from the students. They give detailed instructions to examiners on how to break down the total mark for each question for different parts of the response. A markscheme may include the content expected in the responses to questions or may be a series of marking notes giving guidance on how to apply criteria.

Naseem International School
Middle School
Grading Policy

Determining the Final Grade

This section explains the process by which a student's overall achievement level (in terms of the assessment criteria) is converted to a single grade.

1. Collecting the information

Teachers will use assessment tasks to make judgments of their students' performance against the assessment criteria at intervals during the final year in the subject. Many of the assessment tasks will allow judgments of levels to be made with regard to more than one criterion.

For the purposes of final assessment, teachers **must** ensure that, for each student, they make **several judgments against each criterion**. This can be achieved by using some kinds of assessment task more than once, or by incorporating other types of assessment activity. MYP language A has **three** criteria and so **at least six** judgments (two per criterion) must be made for each student in the final year for the purposes of final assessment. However, as more-complex tasks will allow students to be assessed against several criteria, final assessment may rest on a limited number of tasks.

Important: If more than one teacher is involved in one subject for a single year group, the school must ensure **internal standardization** is used to provide a common system for the application of the assessment criteria to each student. In joint assessment, internal standardization is best achieved by:

- the use of common assessment tasks
- shared assessment of work between the teachers
- regular contact between the teachers.

In certain schools, students may be grouped according to ability within the same subject. In such cases, the teachers' final assessment of student performance across all groups must be based on a **consistent application of the assessment criteria to all students' work**. A different standard should not be applied to different groups.

2. Making a final judgment for each criterion

When the judgments on the various tasks have been made, teachers will be in a position to establish a final profile of achievement for each student by determining the **single most appropriate level for each criterion**. Where the judgments for a criterion differ for specific assessment tasks, the teacher must decide which level best represents the student's final standard of achievement.

Important: Teachers should not average the levels gained in year 5 for any given criterion. Students can develop academically right up to the end of the programme, and teachers must make a professional judgment (that is also supported by work completed) as to which level best corresponds to a student's level of performance for each of the criteria towards the end of the programme.

3. Determining the final criterion levels total

The final levels for each criterion must then be added together to give a **final criterion levels total** for language A for each student. In language A, students have the opportunity to gain a maximum level of 10 for each of the criteria A, B and C. Therefore the maximum final criterion levels total for language A will be 30.

The final criterion levels total is the total that will be submitted to the IB via IBIS (IB information system) for those schools that have registered students to receive IB-validated grades.

4. Determining the final grade for language A

Grade boundaries must be applied to the criterion levels totals to decide the final grade for each student.

Please see the *MYP coordinator's handbook* for the table of grade boundaries for language A.

All MYP subjects receive final grades in the range from 1 (lowest) to 7 (highest) on the IB record of achievement, where students have been registered for IB-validated grades. The general MYP grade descriptors describe the achievement required for the award of the subject grade. After using the conversion table to determine a student's final language A grade, teachers should check the general grade descriptor table to ensure that the description equally reflects the student's achievement.

Schools requiring **IB-validated grades** are required to use **only** the published MYP subject-specific criteria as a basis for the final results that they submit to the IB (both for moderation and as final assessment for certification).

Other schools (those not requiring IB-validated grades) will use the published criteria together with any additional criteria that they have developed independently, and report internally to students and parents. These schools may decide on their own grade boundaries (if using published and additional criteria), or use the boundaries published by the

Naseem International School
High School
Grading Policy

Punctuality	10%
(ie, lateness, absence. 5 warnings. Absent 10 times per quarter=incomplete)	
Class Work	20%
Homework	15%
Tests/Quizzes (minimum of two)	30%
Research Project	15%
Participation (ie, bringing materials to class, etc.)	10%

First Quarter Grades	40%
Second Quarter Grades	40%
Exam	20%

Naseem International School
1 - 7 Grading Scale

MYP Language A grade descriptors

Grade 1 **Minimal** achievement in terms of the objectives.
Grade 2 **Very limited** achievement against all the objectives. The student has difficulty in understanding the required knowledge and skills and is **unable** to apply them fully in normal situations, **even with support**.
Grade 3 **Limited** achievement against most of the objectives, or clear difficulties in some areas. The student demonstrates a **limited understanding** of the required knowledge and skills and is **only able to apply** them fully in normal situations **with support**.
Grade 4 A **good general understanding** of the required knowledge and skills, and the ability to apply them effectively in **normal** situations. There is **occasional** evidence of the skills of analysis, synthesis and evaluation.
Grade 5 A **consistent and thorough understanding** of the required knowledge and skills, and the ability to apply them in a **variety** of situations. The student **generally** shows evidence of analysis, synthesis and evaluation where appropriate and **occasionally** demonstrates originality and insight.
Grade 6 A consistent and thorough understanding of the required knowledge and skills, and the ability to apply them in a **wide variety** of situations. **Consistent** evidence of analysis, synthesis and evaluation is shown where appropriate. The student **generally** demonstrates originality and insight.
Grade 7 A consistent and thorough understanding of the required knowledge and skills, and the ability to apply them **almost faultlessly** in a wide variety of situations. Consistent evidence of analysis, synthesis and evaluation is shown where appropriate. The student **consistently** demonstrates originality and insight and **always** produces **work of high quality**.

DP Language A grade descriptors (HL)

Grade 7 Excellent performance
Demonstrates: excellent knowledge and understanding of works and tasks; very strong and detailed appreciation of the effects of technique and style; very strong evidence of independent and/or original perspectives on the works studied, where appropriate; consistently focused, carefully developed and persuasive presentation of ideas or argument; use of language that is varied, clear, concise, precise and convincingly adapted to tasks.

Grade 6 Very good performance
Demonstrates: very good knowledge and understanding of works and tasks; strong and detailed appreciation of the effects of technique and style; strong evidence of a personal engagement with the works studied, where appropriate; clearly focused, well-developed and purposeful presentation of ideas or argument; use of language that is varied, clear, concise and effectively adapted to tasks.

Grade 5 Good performance
Demonstrates: sound knowledge and understanding of works and tasks; good appreciation of the effects of technique and style; good evidence of a relevant personal response to the works studied, where appropriate; clearly focused and effective presentation of ideas or argument; use of language that is clear, concise and appropriately adapted to tasks.

Grade 4 Satisfactory performance
Demonstrates: adequate knowledge and understanding of works and tasks; adequate awareness of the effects of technique and style; adequate evidence of a relevant personal response to the works studied, where appropriate; generally focused and satisfactory development/presentation of ideas or argument; use of language that is generally clear, accurate, fluent and appropriate to tasks.

Grade 3 Mediocre performance
Demonstrates: some knowledge but superficial understanding of works and tasks; some awareness of the effects of technique and style; some evidence of a relevant personal response to the works studied, where appropriate; some evidence of a focus but ideas are neither appropriately developed nor presented; use of language that is limited in clarity, accuracy, fluency and appropriateness to tasks.

Grade 2 Poor performance
Demonstrates: basic knowledge and/or understanding of works and tasks; basic awareness of the elements of technique and style; basic structure to the presentation of ideas; use of language that is lacking in clarity, accuracy and coherence.

Grade 1 Very poor performance
Demonstrates: rudimentary knowledge and/or understanding of works and tasks; presentation without clarity or relevance; use of language that is barely intelligible.

Language A grade descriptors (SL)

Grade 7 Excellent performance
Demonstrates: excellent knowledge and understanding of works and tasks; sound appreciation of the effects of technique and style; very strong evidence of independent and/or original perspectives on the works studied, where appropriate; consistently focused, carefully developed and persuasive presentation of ideas or argument; use of language that is varied, clear, concise, precise and convincingly adapted to tasks.

Grade 6 Very good performance
Demonstrates: very good knowledge and understanding of works and tasks; adequate appreciation of the effects of technique and style; strong evidence of a personal engagement with the works studied, where appropriate; clearly focused, well-developed and purposeful presentation of ideas or argument; use of language that is varied, clear, concise and effectively adapted to tasks.

Grade 5 Good performance
Demonstrates: sound knowledge and understanding of works and tasks; some appreciation of the effects of technique and style; good evidence of a relevant personal response to the works studied, where appropriate; clearly focused and effective presentation of ideas or argument; use of language that is clear, concise and appropriately adapted to tasks.

Grade 4 Satisfactory performance
Demonstrates: adequate knowledge and understanding of works and tasks; adequate awareness of the elements of technique and style; adequate evidence of a relevant personal response to the works studied, where appropriate; generally focused and satisfactory development/presentation of ideas or argument; use of language that is generally clear, accurate, fluent and appropriate to tasks.

Grade 3 Mediocre performance
Demonstrates: some knowledge but superficial understanding of works and tasks; some awareness of the elements of technique and style; some evidence of a relevant personal response to the works studied, where appropriate; some evidence of a focus but ideas are neither appropriately developed nor presented; use of language that is limited in clarity, accuracy, fluency and appropriateness to tasks.

Grade 2 Poor performance
Demonstrates: basic knowledge and/or understanding of works and tasks; basic awareness of the elements of technique and style; basic structure to the presentation of ideas; use of language that is lacking in clarity, accuracy and coherence.

Grade 1 Very poor performance
Demonstrates: rudimentary knowledge and/or understanding of works and tasks; presentation without clarity or relevance; use of language that is barely intelligible

Language B grade descriptors (HL)

Grade 7 Excellent performance
Demonstrates: understanding of most of the subtleties in speech and writing. Communicates with sophistication, with very few errors and using a range of advanced language.

Grade 6 Very good performance
Demonstrates: understanding of some of the subtleties in speech and writing. Communicates with ease and fluency, with few errors and using some advanced language.

Grade 5 Good performance
Demonstrates: competent understanding of all essential meaning in speech and writing. Consistently communicates coherently, with some errors and some range.

Grade 4 Satisfactory performance
Demonstrates: competent understanding of basic meaning in speech and writing. Generally communicates coherently but with regular errors and little range.

Grade 3 Mediocre performance
Demonstrates: some understanding of speech and writing. Communicates effectively at times.

Grade 2 Poor performance
Demonstrates: limited understanding of speech and writing. Shows limited ability to communicate.

Grade 1 Very poor performance
Demonstrates: very limited understanding of speech and writing. Shows very limited ability to Communicate

Language B grade descriptors (SL)

Grade 7 Excellent performance
Demonstrates: understanding of some of the subtleties in speech and writing. Communicates with ease and fluency, with few errors and using some advanced language.

Grade 6 Very good performance
Demonstrates: competent understanding of all essential meaning in speech and writing. Consistently communicates coherently, with some errors and some range.

Grade 5 Good performance
Demonstrates: competent understanding of basic meaning in speech and writing. Generally communicates coherently but with regular errors and little range.

Grade 4 Satisfactory performance
Demonstrates: some understanding of speech and writing. Communicates effectively at times.

Grade 3 Mediocre performance
Demonstrates: limited understanding of speech and writing. Shows limited ability to communicate.

Grade 2 Poor performance
Demonstrates: very limited understanding of speech and writing. Shows very limited ability to communicate.

Grade 1 Very poor performance
Demonstrates: no competence in understanding or communicating in the language

6 +1 Trait® Definitions

6+1 Trait® is an analytical model that provides common language for teaching and learning. The model is not used per se for assessment but rather as a supplement to teaching.

These are:

- Ideas, the main message; (Content)
- Organization, the internal structure of the piece; (Organization)
- Voice, the personal tone and flavor of the author's message; (Grammar)
- Word Choice, the vocabulary a writer chooses to convey meaning; (Grammar)
- Sentence Fluency, the rhythm and flow of the language; (Grammar)
- Conventions, the mechanical correctness; (Grammar)
- and Presentation, how the writing actually looks on the page. (Organization)

Ideas

The Ideas are the main message, the content of the piece, the main theme, together with all the supporting details that enrich and develop that theme. The ideas are strong when the message is clear, not garbled. The writer chooses details that are interesting, important, and informative–often the kinds of details the reader would not normally anticipate or predict. Successful writers do not "tell" readers things they already know; e.g., "It was a sunny day, and the sky was blue, the clouds were fluffy white …" Successful writers "show" readers that which is normally overlooked; writers seek out the extraordinary, the unusual, the unique, the bits and pieces of life that might otherwise be overlooked.

Organization

Organization is the internal structure of a piece of writing, the thread of central meaning, the pattern and sequence, so long as it fits the central idea. Organizational structure can be based on comparison-contrast, deductive logic, point-by-point analysis, development of a central theme, chronological history of an event, or any of a dozen other identifiable patterns. When the organization is strong, the piece begins meaningfully and creates in the writer a sense of anticipation that is, ultimately, systematically fulfilled. Events proceed logically; information is given to the reader in the right doses at the right times so that the reader never loses interest. Connections are strong, which is another way of saying that bridges from one idea to the next hold up. The piece closes with a sense of resolution, tying up loose ends, bringing things to a satisfying closure, answering important questions while still leaving the reader something to think about.

Voice

Voice is the writer coming through the words, the sense that a real person is speaking to us and cares about the message. It is the heart and soul of the writing, the magic, the wit, the feeling, the life and breath. When the writer is engaged personally with the topic, he/she imparts a personal tone and flavor to the piece that is unmistakably his/hers alone. And it is that individual something–different from the mark of all other writers–that we call Voice.

Word Choice

Word Choice is the use of rich, colorful, precise language that communicates not just in a functional way, but

in a way that moves and enlightens the reader. In descriptive writing, strong word choice resulting in imagery, especially sensory, show-me writing, clarifies and expands ideas. In persuasive writing, purposeful word choice moves the reader to a new vision of ideas. In all modes of writing figurative language such as metaphors, similes and analogies articulate, enhance, and enrich the content. Strong word choice is characterized not so much by an exceptional vocabulary chosen to impress the reader, but more by the skill to use everyday words well.

Sentence Fluency

Sentence Fluency is the rhythm and flow of the language, the sound of word patterns, the way in which the writing plays to the ear, not just to the eye. How does it sound when read aloud? That's the test. Fluent writing has cadence, power, rhythm, and movement. It is free of awkward word patterns that slow the reader's progress. Sentences vary in length, beginnings, structure, and style, and are so well crafted that the writer moves through the piece with ease.

Conventions

The Conventions Trait is the mechanical correctness of the piece and includes five elements: spelling, punctuation, capitalization, grammar/usage, and paragraphing. Writing that is strong in Conventions has been proofread and edited with care. Since this trait has so many pieces to it, it's almost an analytical trait within an analytic system. As you assess a piece for convention, ask yourself: "How much work would a copy editor need to do to prepare the piece for publication?" This will keep all of the elements in conventions equally in play. Conventions is the only trait where we make specific grade level accommodations, and expectations should be based on grade level to include only those skills that have been taught. (Handwriting and neatness are not part of this trait, they belong with Presentation.)

Presentation

Presentation combines both visual and textual elements. It is the way we exhibit or present our message on paper. Even if our ideas, words, and sentences are vivid, precise, and well constructed, the writing will not be inviting to read unless the guidelines of presentation are present. Some of those guidelines include: balance of white space with visuals and text, graphics, neatness, handwriting, font selection, borders, overall appearance. Think about examples of text and visual presentation in your environment. Which signs and billboards attract your attention? Why do you reach for one CD over another? All great writers are aware of the necessity of presentation, particularly technical writers who must include graphs, maps, and visual instructions along with their text. Presentation is key to a polished piece ready for publication.

Works Cited

Standards:
Kendall, John S., Chris Snyder and Kathleen Flynn. Sequenced Benchmarks for K–12 Language Arts. McRel. Washington: Regional Educational Laboratory, 2003.

Benchmarks:
Kendall, John S., Chris Snyder and Kathleen Flynn. Sequenced Benchmarks for K–12 Language Arts. McRel. Washington: Regional Educational Laboratory, 2003.

Outcomes:
International Baccalaureate Organization. "Middle Years Programme: Language A". United Kingdom: Antony Rowe Ltd., 2009.

International Baccalaureate Organization. "Diploma Programme: Language A". United Kingdom: Antony Rowe Ltd., 2011.

International Baccalaureate Organization. "Diploma Programme: Language B". United Kingdom: Antony Rowe Ltd., 2011.

Supplementary Information:
International Baccalaureate Organization. Online Curriculum Centre.
Naseem International School Documents

HUMANITIES CURRICULUM

The aim of Humanities in the MYP is to encourage students to gain and develop knowledge, conceptual, understanding, research skills, analytical and interpretive skills, and communication skills, contributing to the development of the student as a whole. It aims to encourage students to respect and understand the world around them and to provide a skills base to facilitate further study. This is achieved through the study of individuals, societies and environments in a wide context: historical, contemporary, geographical, political, economic, religious, technological and cultural.

Grade 7

Standard 1: **THE USE OF KNOWLEDGE TO EXPLORE CONCEPTS AND SKILLS IN HUMANITIES**

Benchmark 1 Knowledge of humanities terminology in context

OUTCOME At the end of the course students should

- know humanities terminology in context
- be able to use humanities terminology in context
- to show content knowledge and understanding through the use of descriptions and explanations, supported by facts and examples.

Benchmark 2 Use of humanities terminology in context

OUTCOME At the end of the course students should

- know humanities terminology in context
- be able to use humanities terminology in context
- to show content knowledge and understanding through the use of descriptions and explanations, supported by facts and examples.

Benchmark 3 Use knowledge in a context

OUTCOME At the end of the course students should

- know humanities terminology in context
- be able to use humanities terminology in context
- to show content knowledge and understanding through the use of descriptions and explanations, supported by facts and examples.

Standard 2: **CONECPTS ACROSS HUMANITIES**

Benchmark 1 Students understand the concept of time through the study of people , issues , events.

OUTCOME At the end of the course students should be able to

- show an understanding of different perceptions of time, places, societies and environments through the study of people in society; one's own and that of others, past and present.
- demonstrate an awareness of links between people, places and/or events through time.
- recognize the similarities and differences that exists between people, places and events through time

Benchmark 2 Students understand the categorization and significance of place and space in humanities.

OUTCOME At the end of the course students should be able to

- recognize and describe basic patterns and relationships in space, including natural and human environments.
- recognize and describe basic similarities and differences between places
- identify constraints and opportunities afforded by location
- relate to place/space on a local, national and global scale

Benchmark 3 Students understand the process and results of change that shape our world ; natural and artificial , intentional or unintentional.

OUTCOME At the end of the course students should be able to

- identify basic short-term and long-term causes of change.
- identify links between causes, process, consequences, continuity and change.
- recognize that people interact with their environment and changes occur
- Identify how basic interactions can change levels of sustainability

Benchmark 4 Students understand that systems provide structured and order to both natural and artificial domains.

OUTCOME At the end of the course students should be able to

- understand, identify and compare:
- social structures and controls ;
- the complex and dynamic nature of systems and how they operate ;
- different types of equilibrium, rights and responsibilities within systems ;
- cooperation within and between systems

Benchmark 5 Though the concept of global awareness students show understanding of and respect their own cultural and that of others.

OUTCOME At the end of the course students should be able to

- show understanding of how culture and perception can affect a sense of internationalism
- show understanding of the interdependence of societies.
- explore issues facing the international community including issues of equality, justice and responsibility.

Standard 3: SKILLS FOR DEMONSTRATING KNOWLEDGE AND CONCEPTS ACROSS HUMANITIES

Benchmark 1 The use of technical skills from a wide range of sources in the processing and communication of information.

OUTCOME At the end of the course students should be able to

- *observe, select, record, analyze and interpret relevant information from a wide variety of sources ; use and evaluate them in a critical manner.*
- *research, select, interpret and communicate data from a wide variety of media and technologies.*

Benchmark 2 The critical use and evaluation of a variety of sources and its presentation.

OUTCOME At the end of the course students should be able to

- *represent information using a wide variety of media and technologies.*

Benchmark 3 The use of analytical skills from a wide range of sources in the analysis, interpretation, evaluation, the identification of issues and the comparison of information in a range of context.

OUTCOME At the end of the course students should be able to

- *identify key questions, problems and issues*

- *compare and contrast events, issues, ideas, models and arguments in a range of contexts.*

Benchmark 4 The use of decision making skills in the developments, formulation, balanced judgment of events/issues, while making well substantiated decisions related to the real world context.

OUTCOME At the end of the course students should be able to

- *identify key questions, problems and issues*
- *compare and contrast events, issues, ideas, models and arguments in a range of contexts.*
- *develop appropriate strategies to address issues.*
- *development, formulate and make balanced judgments related to events/issues*
- *make well substantiated decisions related to the real world context.*

Benchmark 5 The use of investigative skills in the development and testing of hypothesis; and in the processes of the investigation; all in relation to complimentary fieldwork.

OUTCOME At the end of the course students should be able to

- develop, test and modify hypothesis;
- use the processes of investigation in individual and group investigations;
- engage in fieldwork which complement an investigation.

Standard 4: ORGANIZATION AND PRESENTATION IN HUMANITIES

Benchmark 1 The use of variety of formats to organize and present work.

OUTCOME At the end of the course students should be able to

- *communicate relevant information*

Benchmark 2 The use of variety of media and technologies to organize and present work

OUTCOME At the end of the course students should be able to

- *logically organize information appropriate to its format*

Benchmark 3 The use of the appropriate conventions related to organizing and presenting work.

OUTCOME At the end of the course students should be able to

- *present and express information clearly and concisely; and in appropriate language, style and visual representation.*
- *clearly use appropriate conventions in the referencing and acknowledgement of sources.*

Grade 8

Standard 1: **THE USE OF KNOWLEDGE TO EXPLORE CONCEPTS AND SKILLS IN HUMANITIES**

Benchmark 1 Knowledge of humanities terminology in context
Benchmark 2 Use of humanities terminology in context
Benchmark 3 Use knowledge in a context

OUTCOME At the end of the course students should

- demonstrate subject content knowledge and understanding through the use of descriptions and explanations, supported by relevant facts and examples.

Standard 2: **CONCEPTS ACROSS HUMANITIES**

Benchmark1 Students understand the concept of time through the study of people , issues , events

Benchmark 2 Students understand the categorization and significance of place and space in humanities.

Benchmark 3 Students understand the process and results of change that shape our world ; natural and artificial , intentional or unintentional.

Benchmark 4 Students understand that systems provide structured and order to both natural and artificial domains.

Benchmark 5 Though the concept of global awareness students show understanding of and respect their own cultural and that of others.

OUTCOME At the end of the course students should be able to

- understand their role as part of a group in a context of time and place
- demonstrate some understanding of different perceptions of time
- show an understanding of some aspects of people in past societies
- demonstrate some awareness of chronology that links people, places and events through time
- recognize and describe the similarities and differences that exist between people, places and events through time.
- recognize and describe patterns and relationships in space, including natural and human environments
- recognize and explain some similarities and differences between places
- identify and describe constraints and opportunities afforded by location
- identify and describe issues related to place/space on a local, national and global scale.
- identify and provide some explanations for short-term and long-term causes of change
- identify and provide some explanations for links between causes, processes and consequences
- recognize and describe examples that illustrate continuity and change
- recognize that change is inevitable and that rates of change vary

- understand that as people interact with their environment, changes occur
- identify and describe how environmental, political, economic, and social interactions can change levels of sustainability.
- identify, understand and compare how increasingly complex systems, models and institutions operate
- understand, identify and compare social structures and controls
- understand, identify and compare the dynamic nature of systems
- identify, understand and compare different types of equilibrium within increasingly complex systems
- understand, identify and compare increasingly complex systems in local, national and global societies
- understand, identify and compare rights and responsibilities within systems
- understand, identify and compare cooperation within and between systems.
- identify and describe different perceptions of places, societies and environments
- recognize that culture and perception can affect a sense of internationalism
- identify and describe examples of the interdependence of societies
- demonstrate international and intercultural awareness and some understanding
- explore issues facing the international community
- recognize issues of equality, justice and responsibility
- know when and how to take responsible action.

Standard 3: **SKILLS FOR DEMONSTRATING KNOWLEDGE AND CONCEPTS ACROSS HUMANITIES**

Benchmark 1 The use of technical skills from a wide range of sources in the processing and communication of information.

Benchmark2 The critical use and evaluation of a variety of sources and its presentation.

Benchmark3 The use of analytical skills from a wide range of sources in the analysis, interpretation, evaluation,the identification of issues and the comparison of information in a range of context.

Benchmark4 The use of decision making skills in the developments, formulation, balanced judgment of events/issues, while making well substantiated decisions related to the real world context.

Benchmark5 The use of investigative skills in the development and testing of hypothesis; and in the processes of the investigation; all in relation to complimentary fieldwork.

OUTCOME At the end of the course students should be able to

- observe, select and record relevant information from a variety of sources
- use different media and technologies to research, select, interpret and
- communicate data
- use sources such as maps, graphs, tables, atlases, photographs and statistics, in a thoughtful manner
- represent information using maps, models and diagrams, including use of scale, graphs and tables.
- analyze and interpret information from a range of sources

- identify relevant questions, problems and issues
- evaluate the values and limitations of sources
- compare and contrast events, issues, ideas, models and arguments in different contexts
- use appropriate strategies to address issues
- formulate clear and sound arguments, make balanced judgments on events and draw conclusions, including some implications
- make substantiated decisions and relate them to real-world contexts.
- test hypotheses and ideas and modify them where necessary
- plan, carry out and present individual and group investigations
- engage in fieldwork in order to complement a more detailed investigation.

Standard 4: **ORGANIZATION AND PRESENTATION IN HUMANITIES**
Benchmark 1 The use of variety of formats to organize and present work.
Benchmark2 The use of variety of media and technologies to organize and present work
Benchmark3 The useof the appropriate conventions related to organizing and presenting work.

OUTCOME At the end of the course students should be able to

- communicate information that is relevant to the topic
- organize information in a logically sequenced manner, appropriate to the format used
- present and express information and ideas in a clear and concise manner, using appropriate language and visual representation
- use referencing and a bibliography to clearly document sources of information, using appropriate conventions.

Grade 9

Standard 1: **THE USE OF KNOWLEDGE TO EXPLORE CONCEPTS AND SKILLS IN HUMANITIES**

Benchmark 1 Knowledge of humanities terminology in context
Benchmark 2 Use of humanities terminology in context
Benchmark 3 Use knowledge in a context

OUTCOME At the end of the course students should

- know humanities terminology in context
- be able to use humanities terminology in context
- to show content knowledge and understanding through the use of descriptions and explanations, supported by facts and examples.
- Demonstrate subject content knowledge through the use of descriptions ad explanations, supported by relevant facts, examples, and may attempt other ways of knowing

Standard 2: **CONCEPTS ACROSS HUMANITIES**

Benchmark 1 Students understand the concept of time through the study of people , issues , events
Benchmark 2 Students understand the categorization and significance of place and space in humanities.
Benchmark 3 Students understand the process and results of change that shape our world ; natural and artificial , intentional or unintentional.
Benchmark 4 Students understand that systems provide structured and order to both natural and artificial domains.
Benchmark 5 Though the concept of global awareness students show understanding of and respect their own cultural and that of others.

OUTCOME At the end of the course students should be able to

- Understand their personal and/or social identity in a context of time and place
- Demonstrate adequate understanding of different perceptions of time
- Show adequate understanding of people in past societies
- Demonstrate adequate awareness of chronology that links people, places and events through time
- Recognize and attempt to explain the similarities and difference that exist between people,places and events through time

Standard 3: **SKILLS FOR DEMONSTRATING KNOWLEDGE AND CONCEPTS ACROSS HUMANITIES**

Benchmark 1 The use of technical skills from a wide range of sources in the processing and communication of information.
Benchmark 2 The critical use and evaluation of a variety of sources and its presentation.

Benchmark 3 The use of analytical skills from a wide range of sources in the analysis, interpretation, evaluation, the identification of issues and the comparison of information in a range of context.

Benchmark 4 The use of decision making skills in the developments, formulation, balanced judgment of events/issues, while making well substantiated decisions related to the real world context.

Benchmark 5 The use of investigative skills in the development and testing of hypothesis; and in the processes of the investigation; all in relation to complimentary fieldwork.

OUTCOME At the end of the course students should be able to

- Recognize,describe and attempt to explain patterns and relationships in space, including natural and human environments.
- Recognize and adequately explain similarities between places
- Understand some constraints and opportunities afforded by location.
- Understand some issues related to place/space on local, national scale.
- Understand and provide some explanation for short-term and long-term causes of change
- Explain links between causes ,processes and consequences
- Recognize and attempt to explain continuity and change.
- Recognize that change is inevitable and relevant to context.
- Understand that people change the environment just as the environment changes them
- Understand and attempt to explain how environmental, political, economic and social interactions can change levels of sustainability.
- Understand, identify and compare social structures and controls
- Understand ,identify and compare the often complex and dynamic nature of systems
- Understand ,identify and compare most systems in local, national and global societies
- Understand, identify and compare rights and responsibilities within systems
- Understand ,identify and compare cooperation within and between systems
- Attempt to explain different perceptions of places, societies and environments
- Attempt to understand how culture and perception can affect a sense of internationalism
- Show a basic understanding of the interdependence of societies
- Demonstrate international awareness and an advancing understanding
- Explore issues facing the international community
- Recognize issues of equality ,justice and responsibility
- Know when and how to take responsible action and where it might be relevant
- Observe,select and record relevant information from an increasing range of sources
- Use an increasing variety of media and technologies to research, select ,interpret and communicate data
- Use sources like maps, graphs, tables, atlases, photographs and statistics, in an analytical manner.

- Represent information using maps, models,diagrams ,including use of scale, graphs and tables
- Analyze and interpret information from an increasing range of sources
- Identify critical questions, problems and issues
- Thoughtfully evaluate the values and limitations of sources.
- Compare and contrast events ,issues ,ideas, and arguments in diverse contexts.
- Attempt to develop appropriate strategies to address issues
- Formulate clear ,valid and sound arguments, make balanced judgments on events and draw conclusions , including and increasing quantity of implications.
- Make increasingly substantiated decisions and relate them to real-world contexts
- Test hypotheses and/or ideas and modify them where necessary
- Plan,carry out and present individual and group investigations
- Engage in fieldwork in order to complement a more detailed investigation.

Standard 4: **ORGANIZATION AND PRESENTATION IN HUMANITIES**
Benchmark 1 The use of variety of formats to organize and present work.
Benchmark 2 The use of variety of media and technologies to organize and present work
Benchmark 3 The use of the appropriate conventions related to organizing and presenting work.

OUTCOME At the end of the course students should be able to

- Communicate information that is relevant to the topic
- Organize information in a logically ,sequenced manner, appropriate to the format used
- Present and express information and ideas in a clear and concise manner ,using increasingly appropriate language ,style and visual representation.
- Use referencing and a bibliography to clearly document sources of information, using appropriate conventions

Grade 10

Standard 1: **THE USE OF KNOWLEDGE TO EXPLORE CONCEPTS AND SKILLS IN HUMANITIES**

Benchmark 1 Knowledge of humanities terminology in context

OUTCOME At the end of the course students should

- know humanities terminology in context
- be able to use humanities terminology in context
- to show content knowledge and understanding through the use of descriptions and explanations, supported by facts and examples.

Benchmark 2 Use of humanities terminology in context

OUTCOME At the end of the course students should

- know humanities terminology in context
- be able to use humanities terminology in context
- to show content knowledge and understanding through the use of descriptions and explanations, supported by facts and examples.

Benchmark 3 Use knowledge in a context

OUTCOME At the end of the course students should

- know humanities terminology in context
- be able to use humanities terminology in context
- to show content knowledge and understanding through the use of descriptions and explanations, supported by facts and examples.

Standard 2: **CONECPTS ACROSS HUMANITIES**

Benchmark 1 Students understand the concept of time through the study of people , issues , events.

OUTCOME At the end of the course students should be able to

- show an understanding of different perceptions of time, places, societies and environments through the study of people in society; one's own and that of others, past and present.
- recognize and explain the similarities and differences that exists between people, places and events through time, place
- demonstrate an awareness of chronology and its links

Benchmark 2 Students understand the categorization and significance of place and space in humanities.

OUTCOME At the end of the course students should be able to

- understand constraints and opportunities afforded by location
- relate to place/space on a local, national and global scale

Benchmark 3 Students understand the process and results of change that shape our world ; natural and artificial , intentional or unintentional.

OUTCOME At the end of the course students should be able to

- recognize, describe and explain patterns and relationships in place/space including natural and human environments.
- establish, recognize and explain the links cause, process, consequences, continuity and change.
- understand short - and long term causes of change and
- understand that change effects on both people and the environment.
- understand and explain how various types of human interactions can change levels of sustainability.

Benchmark 4 Students understand that systems provide structured and order to both natural and artificial domains.

OUTCOME At the end of the course students should be able to

- understand, identify and compare:
  - social structures and controls ;
  - the complex and dynamic nature of systems and how they operate ;
  - different types of equilibrium, rights and responsibilities within systems ;
  - cooperation within and between systems

Benchmark 5 Though the concept of global awareness students show understanding of and respect their own cultural and that of others.

OUTCOME At the end of the course students should be able to

- show understanding of how culture and perception can affect a sense of internationalism
- show understanding of the interdependence of societies.
- explore issues facing the international community including issues of equality, justice and responsibility.

Standard 3: SKILLS FOR DEMONSTRATING KNOWLEDGE AND CONCEPTS ACROSS HUMANITIES

Benchmark 1 The use of technical skills from a wide range of sources in the processing and communication of information.

OUTCOME At the end of the course students should be able to

- observe, select, record, analyze and interpret relevant information from a wide variety of sources ; use and evaluate them in a critical manner.
- research, select, interpret and communicate data from a wide variety of media and technologies.

Benchmark 2 The critical use and evaluation of a variety of sources and its presentation.

OUTCOME At the end of the course students should be able to

- represent information using a wide variety of media and technologies.

Benchmark 3 The use of analytical skills from a wide range of sources in the analysis, interpretation, evaluation, the identification of issues and the comparison of information in a range of context.

OUTCOME At the end of the course students should be able to

- identify key questions, problems and issues
- compare and contrast events, issues, ideas, models and arguments in a range of contexts.

Benchmark 4 The use of decision making skills in the developments, formulation, balanced judgment of events/issues, while making well substantiated decisions related to the real world context.

OUTCOME At the end of the course students should be able to

- identify key questions, problems and issues
- compare and contrast events, issues, ideas, models and arguments in a range of contexts.
- develop appropriate strategies to address issues.
- development, formulate and make balanced judgments related to events/issues
- make well substantiated decisions related to the real world context.

Benchmark 5 The use of investigative skills in the development and testing of hypothesis; and in the processes of the investigation; all in relation to complimentary fieldwork.

OUTCOME At the end of the course students should be able to

- develop, test and modify hypothesis;
- use the processes of investigation in individual and group investigations;
- engage in fieldwork which complement an investigation.

Standard 4: ORGANIZATION AND PRESENTATION IN HUMANITIES

Benchmark 1 The use of variety of formats to organize and present work.

OUTCOME At the end of the course students should be able to

- communicate relevant information

Benchmark 2 The use of variety of media and technologies to organize and present work

OUTCOME At the end of the course students should be able to

- logically organize information appropriate to its format

Benchmark 3 The use of the appropriate conventions related to organizing and presenting work.

OUTCOME At the end of the course students should be able to

- present and express information clearly and concisely; and in appropriate language, style and visual representation.
- clearly use appropriate conventions in the referencing and acknowledgement of sources.

IB Diploma Business & Management

Standard 1: **THE USE OF KNOWLEDGE TO EXPLORE CONCEPTS AND SKILLS IN HUMANITIES**

Benchmark 1 Knowledge of humanities terminology in context

OUTCOME At the end of the course students should

- demonstrate knowledge and understanding of business terminology, concepts, principles and theories

Benchmark 2 Use of humanities terminology in context

OUTCOME At the end of the course students should

- demonstrate knowledge and understanding of business terminology, concepts, principles and theories

Benchmark 3 Use knowledge in a context

OUTCOME At the end of the course students should

- demonstrate knowledge and understanding of business terminology, concepts, principles and theories

Additional Outcome: At the end of the course students should

- know business terminology in context
- be able to use business terminology in context
- to show content knowledge and understanding through the use of descriptions and explanations, supported by facts and examples.

Standard 2: **CONCEPTS ACROSS HUMANITIES**

Benchmark 1 Students understand the concept of time through the study of people, issues , events

OUTCOME At the end of the course students should

- be able to systematically and critically study human experience and behavior with the physical, economic and social environments.
- demonstrate the capacity to think critically about individual and organizational behavior.

Benchmark 2 Students understand the categorization and significance of place and space in humanities.

OUTCOME At the end of the course students should

- be able to systematically and critically study human experience and behavior with the physical, economic and social environments.
- be able to recognize that the content and methodologies of Business and Management are contestable and that their study requires the toleration of uncertainty.

Benchmark 3 Students understand the process and results of change that shape our world ; natural and artificial , intentional or unintentional

OUTCOME At the end of the course students should

- demonstrate an awareness that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity
- be able to recognize that the content and methodologies of Business and Management are contestable and that their study requires the toleration of uncertainty.
- display the capacity to think critically about individual and organizational behavior.
- be able to show an appreciate the nature and significance of change in a local, regional and global context
- illustrate an awareness of social, cultural and ethical factors in the actions of organizations and individuals in those organizations

Benchmark 4 Students understand that systems provide structured and order to both natural and artificial domains.

OUTCOME At the end of the course students should

- display the capacity to think critically about individual and organizational behavior
- demonstrate an awareness of social, cultural and ethical factors in the actions of organizations and individuals in those organizations

Benchmark 5 Though the concept of global awareness students show understanding of and respect their own cultural and that of others.

OUTCOME At the end of the course students should

- show an appreciation of the way in which learning is relevant to both the culture in which the student lives, and the culture of other societies
- show an awareness in the student that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity
- demonstrate the importance of exploring business issues from different cultural perspectives`
- show an appreciation of the social and ethical responsibilities associated with businesses operating in international markets

Additional Outcome: At the end of the course students should be able to

- *show an understanding of different perceptions of time, places, societies and environments through the study of people in society; one's own and that of others, past and present.*
- *demonstrate an awareness of chronology and its links*
- *recognize and explain the similarities and differences that exists between people, places and events through time, place*
- recognize, describe and explain patterns and relationships in place/space including natural and human environments.
- understand constraints and opportunities afforded by location
- relate to place/space on a local, national and global scale

- *understand short - and long term causes of change and*
- *understand that change effects on both people and the environment.*
- *establish, recognize and explain the links cause, process, consequences, continuity and change.*
- *understand and explain how various types of human interactions can change levels of sustainability.*
- understand, identify and compare:
  - social structures and controls ;
  - the complex and dynamic nature of systems and how they operate ;
  - different types of equilibrium, rights and responsibilities within systems ;
  - cooperation within and between systems
- show understanding of how culture and perception can affect a sense of internationalism
- show understanding of the interdependence of societies.
- explore issues facing the international community including issues of equality, justice and responsibility.

Standard 3: **SKILLS FOR DEMONSTRATING KNOWLEDGE AND CONCEPTS ACROSS HUMANITIES**

Benchmark 1 The use of technical skills from a wide range of sources in the processing and communication of information.

OUTCOME At the end of the course students should

- use technical skills to make business decisions by identifying the issue(s)

Benchmark 2 The critical use and evaluation of a variety of sources and its presentation.

OUTCOME At the end of the course students should

- demonstrate the ability to select and interpret data
- show the ability to collect, describe and analyse data used in studies of society, to test hypotheses and interpret complex data and source material

Benchmark 3 The use of analytical skills from a wide range of sources in the analysis, interpretation, evaluation, the identification of issues and the comparison of information in a range of context.

OUTCOME At the end of the course students should

- be familiar with applying appropriate tools and techniques
- be able to analyse and evaluate business decisions using a variety of sources
- show ability in evaluating business strategies and/or practices, showing evidence of critical thinking
- demonstrate the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society

Benchmark 4 The use of decision making skills in the developments, formulation, balanced judgment of events/issues, while making well substantiated decisions related to the real world context.

OUTCOME At the end of the course students should be able to

- recommend suitable solutions to business challenges
- analyse and evaluate business decisions using a variety of sources
- show the ability to make informed business decisions
- synthesize knowledge in order to develop a framework for business decision-making (HL)

Benchmark 5 The use of investigative skills in the development and testing of hypothesis; and in the processes of the investigation; all in relation to complimentary fieldwork.

OUTCOME At the end of the course students should be able to

- apply skills and knowledge learned in the subject to hypothetical and real business situations
- synthesize knowledge in order to develop a framework for business decision-making (HL)
- show an understanding of the systematic and critical study of human experience and behaviour; physical, economic and social environments
- demonstrate the ability to collect, describe and analyse data used in studies of society, to test hypotheses and interpret complex data and source material

Additional Outcome: At the end of the course students should be able to

- observe, select, record, analyze and interpret relevant information from a wide variety of sources ; use and evaluate them in a critical manner.
- research, select, interpret and communicate data from a wide variety of media and technologies.
- represent information using a wide variety of media and technologies.
- identify key questions, problems and issues
- compare and contrast events, issues, ideas, models and arguments in a range of contexts.
- develop appropriate strategies to address issues.
- development, formulate and make balanced judgments related to events/issues
- make well substantiated decisions related to the real world context.
- develop, test and modify hypothesis;
- use the processes of investigation in individual and group investigations;
- engage in fieldwork which complement an investigation.

Standard 4: ORGANIZATION AND PRESENTATION IN HUMANITIES

Benchmark 1 The use of variety of formats to organize and present work.

OUTCOME At the end of the course students should be able to

- communicate relevant information
- logically organize information appropriate to its format

- present and express information clearly and concisely; and in appropriate language, style and visual representation demonstrate knowledge

Benchmark 2 The use of variety of media and technologies to organize and present work
OUTCOME At the end of the course students should be able to

- communicate relevant information
- logically organize information appropriate to its format
- present and express information clearly and concisely; and in appropriate language, style and visual representation

Benchmark 3 The use of the appropriate conventions related to organizing and presenting work.
OUTCOME At the end of the course students should be able to

- show clearly the use of appropriate conventions in the referencing and acknowledgement of sources.
- communicate business ideas and information effectively and accurately using appropriate formats and tools.

Resources

"IB Middle Years Programme Curriculum, Humanities."
International Education - The International Baccalaureate Offers High Quality Programmes of Education to a Worldwide Community of Schools.
Web. 04 Jul July 2011. <http://www.ibo.org/myp/curriculum/group3/>.

Science
Grade 7-12

Grade 7

Standard 1: SCIENTIFIC INQUIRY: Students understand the nature of scientific knowledge and enterprise, and apply the process of scientific inquiry.

Benchmark1: Identify questions and concepts that guide science investigations
OUTCOME: the student should be able to :

- state a clear focused problem or research question to be tested by a scientific investigation.
- Formulate a testable hypothesis and explain it using scientific reasoning ("If I do this, then this will happen because … ").

Benchmark2: Design and conduct scientific investigations
OUTCOME: the student should be able to :

- select appropriate materials and equipment and write a mostly complete method, mentioning some of the variables involved and how to manipulate them.
- make comments on the method, and the accuracy and precision of the data.
- attempt to makes comments on the how the hypothesis is supported or not by the data/outcome of the investigation
- work safely and uses material and equipment competently.
- work responsibly with regards to the living and non-living environment.
- cooperate with others.

Benchmark3: Collect and process the data in a scientific investigation and communicate the Conclusions.
OUTCOME: the student should be able to :

- collect sufficient relevant data and record it in a suitable format.
- organize, transforms and presents data in numerical (including mathematical calculations) and/or visual forms (tables, graphs and charts) correctly.
- attempt to describe a trend, pattern or relationship in the data.
- draw a conclusion based on the interpretation of the data .
- suggest some realistic improvements to the method.

Benchmark4: *understand the interdependence of science and society*
OUTCOME: the student should be able to :

- comment on how science is applied and how it may be used to address a specific problem or issue in a local or global context.
- make comments on the effectiveness of science and its application in solving the problem or issue.
- make comments on the implications of the use and application of science interacting with at least two of the following factors: moral, ethical, social, economic, political, cultural and environmental..

Benchmark5: Communicate and defend a scientific argument
OUTCOME: the student should be able to :

- uses sufficient scientific language correctly.
- communicate ideas and findings in science.
- document sources of information correctly.

Standard 2: LIFE SCIENCE – Students know and understand the characteristics, structure, and function of organisms and their Standard 2: Life Science – Students know and understand the characteristics, structure, and function of organisms and their systems; the processes of life, and how organisms interact with each other and their environment.

Benchmark 1: Understand and demonstrate knowledge of the basic components and functions of cells, tissues, organs, and systems

OUTCOME: the student should be able to :

- Identify the seven characteristics of living things and relate these to a wide range of organisms.
- Identify the structures present in plant and animal cells as seen with a simple light microscope.
- Compare the structure of plant and animal cells.
- Relate the structure of some common cells to their functions.
- Understand that cells can be grouped together to form tissues, organs and organisms.

Benchmark 2: Understands and demonstrates the knowledge of the relationships among organisms and their physical environment including environmental issues

OUTCOME: the student should be able to :

- Understand what is meant by a species.
- Investigate variation within a species.
- Classify animals and plants into major groups.
- Describe how organisms are adapted to their habitat.
- Draw simple food chains.

Standard 3: PHYSICAL SCIENCE: Students demonstrate an understanding of the composition of physical systems and the concepts and principles that describe and predict physical interactions and events in the natural world

Benchmark 1: Understand and demonstrate the knowledge of forces and motion

OUTCOME: the student should be able to :

- Describe the effect of forces on the motion and shape of objects.
- Calculate average speeds
- Interpret simple distance/time graphs.
- Describe the effects of forces on motion.
- Describe the effect of gravity on objects.

Benchmark 2: Understand and demonstrate knowledge of the sources and properties of energy

OUTCOME: the student should be able to :

- Name the major sources of energy including fuels.
- Describe alternative energy sources including solar and wind.
- Recognise various forms of energy and understand simple energy changes.
- Understand what is meant by energy and energy conservation.
- Recognise different types of energy and energy transformations.

Benchmark 3: Understand and demonstrate knowledge of Electricity and Magnetism

OUTCOME: the student should be able to:

- Distinguish between conductors and insulators.

- Set up simple circuits and draw circuit diagrams.
- Recognise the effects of circuit components such as cells, lamps and resistors.
- Describe the properties of magnets.
- Recognise and reproduce the magnetic field pattern of a bar magnet.
- Construct and use an electromagnet.

Standard 4: PHYSICAL SCIENCE: Students know and understand the Chemical interactions between, the changes in, and the properties of matter

Benchmark 1: Understand and demonstrate the knowledge of chemical change
OUTCOME: the student should be able to :

- Use indicators to distinguish acid and alkaline solutions.
- Use a pH scale.
- Understand neutralisation and some of its applications.
- Use a word equation to describe a common reaction.
- Describe chemical reactions which are not useful e.g. rusting.

Benchmark 2: Understand and demonstrate the knowledge of elements and compounds
OUTCOME: the student should be able to :

- Distinguish between metals and non-metals.
- Describe everyday materials and their physical properties.
- Give chemical symbols for the first twenty elements of the Periodic Table.
- Understand that elements are made of atoms.
- Explain the idea of compounds.
- Name some common compounds including oxides, hydroxides, chlorides, sulphates and carbonates.
- Distinguish between elements, compounds and mixtures.
- Describe and explain the differences between metals and non-metals.

Standard 5: **EARTH and SPACE SCIENCE**: Students will understand the structures and changes of the earth and universe.

Benchmark 1: Understand and demonstrate the knowledge of satellites and their uses
OUTCOME: the student should be able to :

- Understand the use of artificial satellites.
- List some types of satellites orbits
- Explain the need for using different orbits
- Understand how Global Positioning System (GPS) and Satnav work.

Grade 8

Standard 1: SCIENTIFIC INQUIRY: Students understand the nature of scientific knowledge and enterprise, and apply the process of scientific inquiry.

Benchmark1: Identify questions and concepts that guide science investigations
OUTCOME: the student should be able to :

- state a clear focused problem or research question to be tested by a scientific investigation.
- formulate a testable hypothesis and explain it using scientific reasoning ("If I do this, then this will happen because … ").

Benchmark2: Design and conduct scientific investigations
OUTCOME: the student should be able to :

- select appropriate materials and equipment and write a mostly complete method, mentioning the some of variables involved and how to manipulate them.
- make comments on the method, and the accuracy and precision of the data.
- attempt to make comments on the how the hypothesis is supported or not by the data/outcome of the investigation
- work safely and use material and equipment competently.
- work responsibly with regards to the living and non-living environment.
- cooperate with others.

Benchmark3: Collect and process the data in a scientific investigation and communicate the conclusions
OUTCOME: the student should be able to :

- collect sufficient relevant data and record it in a suitable format.
- organize, transforms and presents data in numerical (including mathematical calculations) and/or visual forms (tables, graphs and charts) correctly.
- attempt to describe a trend, pattern or relationship in the data.
- draw a conclusion based on the interpretation of the data .
- suggest some realistic improvements to the method.

Benchmark4: understand the interdependence of science and society
OUTCOME: the student should be able to :

- describe the ways in which science is applied and used to address specific problems or issues
- describe the effectiveness of science and its application in solving problems or issues
- describe how science and its application interact with some of the following factors: moral, ethical, social, economic, political, cultural and environmental.

Benchmark5: Communicate and defend a scientific argument
OUTCOME: the student should be able to :

- use scientific language correctly.
- communicate ideas and findings in science.

- acknowledge the work of others and the sources of information used by documenting them using a recognized referencing system.

Standard 2: **LIFE SCIENCE** – Students know and understand the characteristics, structure, and function of organisms and their systems; the processes of life, and how organisms interact with each other and their environment.

Benchmark 1: Understand and demonstrate knowledge of
OUTCOME: the student should be able to :

- Recognise the positions and know the functions of the major organ systems of the human body.
- Identify the constituents of a balanced diet and the functions of various nutrients.
- Understand the effects of nutritional deficiencies.
- Recognise the organs of the alimentary canal and know their functions.
- Understand the function of enzymes as biological catalysts.
- Recognise the basic components of the circulatory system and know their functions.
- Understand the relationship between diet and fitness.
- Describe disorders of the circulatory system and relate these to diet.
- Recognise the basic components of the respiratory system and know their functions.
- Explain gaseous exchange.
- Describe the effects of smoking.
- Define and describe respiration including the use of a word equation.

Benchmark 2: Understands and demonstrates the knowledge of the relationships among organisms and their physical environment including environmental issues
OUTCOME: the student should be able to :

- Understand what is meant by a species.
- Investigate variation within a species.

Classify animals and plants into major groups. Based on physical appearance.

- <u>Animals</u>
  Mammals
  Birds
  Fish
  Reptiles
  Amphibians
- <u>Plants</u>
  Flowering plants
  Non flowering plants

Standard 3: **PHYSICAL SCIENCE**: Students demonstrate an understanding of the composition of physical systems and the concepts and principles that describe and predict physical interactions and events in the natural world

Benchmark 1: Understand and demonstrate the knowledge of forces and motion
OUTCOME: the student should be able to :

- Describe the effect of forces on the motion and shape of objects.
- Calculate average speeds
- Interpret simple distance/time graphs.
- Describe the effects of forces on motion.
- Describe the effect of gravity on objects.

Benchmark 2: Understand and demonstrate knowledge of the sources and properties of energy
OUTCOME: the student should be able to :

- Name the major sources of energy including fuels.
- Describe alternative energy sources including solar and wind.
- Recognise various forms of energy and understand simple energy changes.
- Understand what is meant by energy and energy conservation.
- Recognise different types of energy and energy transformations.

Benchmark 3: Understand and demonstrate knowledge of Light
OUTCOME: the student should be able to :

- Use rectilinear propagation of light to explain the formation of shadows and other phenomena.
- Describe how non-luminous objects are seen
- Describe reflection at a plane surface and use the law of reflection.
- Investigate refraction at the boundary between air and glass or air and water.
- Explain the dispersion of white light. Explain colour addition and subtraction, and the absorption and reflection of coloured light.

Benchmark 4: Understand and demonstrate knowledge of Sound
OUTCOME: the student should be able to :

- Explain the properties of sound in terms of movement of air particles.
- Recognise the link between loudness and amplitude, pitch and frequency.

Standard 4: PHYSICAL SCIENCE: Students know and understand the Chemical interactions between, the changes in, and the properties of matter

Benchmark 1: Understand and demonstrate the knowledge of elements and compounds
OUTCOME: the student should be able to :

- Distinguish between metals and non-metals.
- Describe everyday materials and their physical properties.
- Give chemical symbols for the first twenty elements of the Periodic Table.
- Understand that elements are made of atoms.
- Explain the idea of compounds.
- Distinguish between elements, compounds and mixtures.
- Describe and explain the differences between metals and non-metals.

Benchmark 2: Understand and demonstrate the knowledge of properties and states of matter
OUTCOME: the student should be able to :

- Distinguish between solids, liquids and gases and identify changes of state.
- Use simple kinetic theory to explain changes of state, dissolving and diffusion.
- Describe a variety of ways of obtaining pure substances from mixtures.
- Recognize a mixture and a solution.

- Recognize burning as a non-reversible, exothermic reaction.
- Distinguish between physical and chemical changes.

Benchmark 3: Understand and demonstrate the knowledge of measurements in science
OUTCOME: the student should be able to :

- Choose the appropriate apparatus for measurement.
- Use apparatus carefully and accurately.
- Record measurements using the correct units.
- Recognize the way that particles are arranged and move in solids, liquids and gases.
- Explain the expansion of solids, liquids and gases.

Standard 5: **Earth and Space Science** : Students will understand the structures and changes of the earth and universe.

Benchmark 1: Understand and demonstrate the knowledge of Rocks
OUTCOME: the student should be able to :

- Distinguish the several types of rocks.
- Describe the process involved in the formation of rocks
- Use the characteristics of rocks to explain how they formed.

Grade 9

Standard 1: SCIENTIFIC INQUIRY: Students understand the nature of scientific knowledge and enterprise, and apply the process of scientific inquiry.

Benchmark 1: Identify questions and concepts that guide science investigations
OUTCOME: the student should be able to :

- state a clear focused problem or research question to be tested by a scientific investigation.
- formulate a testable hypothesis and explain it using scientific reasoning ("If I do this, then this will happen because … ").

Benchmark 2: Design and conduct scientific investigations
OUTCOME: the student should be able to :

- select appropriate materials and equipment and write a complete method, mentioning most of the variables involved and how to manipulate them.
- make comments on the method, and the accuracy and precision of the data.
- make comments on the how the hypothesis is supported or not by the data/outcome of the investigation
- work safely and uses material and equipment competently.
- work responsibly with regards to the living and non-living environment.
- cooperate with others.

Benchmark 3: Collect and process the data in a scientific investigation and communicate the conclusions
OUTCOME: the student should be able to :

- collect sufficient relevant data and record it in a suitable format.
- organize, transforms and presents data in numerical (including mathematical calculations) and/or visual forms (tables, graphs and charts) correctly.
- describe a trend, pattern or relationship in the data.
- draw a conclusion based on the interpretation of the data .
- suggest realistic improvements to the method.

Benchmark 4: understand the interdependence of science and society
OUTCOME: the student should be able to :

- describe the ways in which science is applied and used to address specific problems or issues
- explain the effectiveness of science and its application in solving problems or issues.
- Describe and explain how science and its application interact with some of the following factors: moral, ethical, social, economic, political, cultural and environmental

Benchmark 5: Communicate and defend a scientific argument
OUTCOME: the student should be able to :

- uses scientific language correctly.
- communicate ideas and findings in science.
- acknowledge the work of others and the sources of information used by documenting them using a recognized referencing system.

Standard 2: LIFE SCIENCE – Students know and understand the characteristics, structure, and function of organisms and their systems; the processes of life, and how organisms interact with each other and their environment.

Benchmark 1: Understand and demonstrate knowledge of the basic components and functions of cells, tissues, organs, and systems

OUTCOME: the student should be able to :

- state that living organisms are made of cells
- identify and describe the structure of a plant cell (palisade cell) and an animal cell (liver cell), as seen under a light microscope
- relate the structures seen under the light microscope in the plant cell and in the animal cell to their functions
- describe the differences in structure between typical animal and plant cells
- relate the structure of the following to their functions:
- ciliated cells – in respiratory tract
- root hair cells – absorption
- xylem vessels – conduction and support
- muscle cells – contraction
- red blood cells – transport
- define : tissue as a group of cells with similar structures, working together to perform a shared function
- organ as a structure made up of a group of tissues working together to perform specific functions
- organ system as a group of organs with related functions, working together to perform body functions
- calculate magnification and size of biological specimens using millimeters as units define diffusion as the net movement of
- molecules from a region of their higher concentration to a region of their lower concentration down a concentration gradient, as a result of their random movement
- describe the importance of diffusion of gases and solutes and of water as a solvent
- define active transport as movement of ions in or out of a cell through the cell membrane, from a region of their lower concentration to a region of their higher concentration against a concentration gradient, using energy released during respiration
- discuss the importance of active transport as an energy-consuming process by which substances are transported against a concentration gradient, e.g. ion uptake by root hairs and uptake of glucose by epithelial cells of villi define osmosis as the diffusion of water molecules from a region of their higher concentration (dilute solution) to a region of their lower concentration (concentrated solution), through a partially permeable membrane
- describe the importance of osmosis in the uptake of water by plants, and its effects on plant and animal tissues
- describe and explain the importance of a water potential gradient in the uptake of water by plants

Benchmark 2: Understand and demonstrate the knowledge of nutrition in humans and the role of enzymes.

OUTCOME: the student should be able to :

<u>Enzymes:</u>

- define the term catalyst as a substance that speeds up a chemical reaction and is not changed by the reaction
- define enzymes as proteins that function as biological catalysts
- investigate and describe the effect of changes in temperature and pH on enzyme activity explain enzyme action in terms of the 'lock and key model
- explain the effect of changes in temperature and pH on enzyme activity

Nutrition:

- list the chemical elements that make up:
- carbohydrates
- fats
- proteins
- describe the synthesis of large molecules from smaller basic units, i.e.
- simple sugars to starch and glycogen
- amino acids to proteins
- fatty acids and glycerol to fats and oils
- describe tests for:
- starch (iodine solution)
- reducing sugars (Benedict's solution)
- protein (biuret test)
- fats (ethanol)
- list the principal sources of, and describe the importance of:
- carbohydrates
- fats
- proteins
- vitamins (C and D only)
- mineral salts (calcium and iron only)
- fibre (roughage)
- water
- describe the use of microorganisms in the food industry, with reference to yoghurt and single cell protein
- describe the uses, benefits and health hazards associated with food additives, including colourings
- describe the deficiency symptoms for:
- vitamins (C and D only)
- mineral salts (calcium and iron only)
- define photosynthesis as the fundamental process by which plants manufacture carbohydrates from raw materials using energy from light
- state the equation for the production of simple sugars and oxygen in words
- state the balanced equation for photosynthesis in symbols
- investigate the necessity for chlorophyll, light and carbon dioxide for photosynthesis, using appropriate controls
- describe the intake of carbon dioxide and water by plants
- explain that chlorophyll traps light energy and converts it into chemical energy for the formation of carbohydrates and their subsequent storage
- investigate and state the effect of varying light intensity, carbon dioxide concentration and temperature on the rate of photosynthesis (e.g.in submerged aquatic plants)

- define the term limiting factor as something present in the environment in such short supply that it restricts life processes
- explain the concept of limiting factors in photosynthesis
- explain the use of carbon dioxide enrichment, optimum light and optimum temperatures in glasshouse systems
- identify and label the cuticle, cellular and tissue structure of a dicotyledonous leaf, as seen in cross-section under the light microscope, and describe the significance of these features in terms of functions, to include:
- distribution of chloroplasts – photosynthesis
- stomata and mesophyll cells – gas exchange
- vascular bundles (xylem and phloem) –
- transport and support
- describe the effects of malnutrition in relation to starvation, coronary heart disease, constipation and obesity
- describe the role of longitudinal and circular muscles in peristalsis
- state the functions of a typical amylase, a protease and a lipase, listing the substrate and end-products
- define absorption as movement of digested food molecules through the wall of the intestine into the blood or lymph
- identify the small intestine as the region for the absorption of digested food
- describe the significance of villi in increasing the internal surface area of the small intestine
- describe the structure of a villus, including the role of capillaries and lacteals

Benchmark 3: Demonstrates knowledge and understanding involving how coordination and response are interrelated.

OUTCOME: the student should be able to :

<u>Coordination and response:</u>

- describe the human nervous system in terms of the central nervous system (brain and spinal cord as areas of coordination) and the peripheral nervous system which together serve to
- coordinate and regulate body functions
- distinguish between voluntary and involuntary actions
- identify motor, relay and sensory neurones from diagrams
- describe a simple reflex arc in terms of sensory, relay and motor neurons, and a reflex action as a means of automatically and rapidly integrating and coordinating stimuli with responses
- state that muscles and glands can act as effectors
- describe the action of antagonistic muscles to include the biceps and triceps at the elbow joint
- define sense organs as groups of receptor cells responding to specific stimuli: light, sound, touch, temperature and chemicals
- describe the structure and function of the eye, including accommodation and pupil reflex
- distinguish between rods and cones, in terms of function and distribution
- define a hormone as a chemical substance, produced by a gland, carried by the blood, which alters the activity of one or more specific target organs and is then destroyed by the liver discuss the use of hormones in food production

- state the role of the hormone adrenaline in chemical control of metabolic activity, including increasing the blood glucose concentration and pulse rate
- give examples of situations in which adrenaline secretion increases
- compare nervous and hormonal control systems
- define and investigate geotropism (as a response in which a plant grows towards or away from gravity) and phototropism (as a response in which a plant grows towards or away from the direction from which light is coming)
- explain the chemical control of plant growth by auxins including geotropism and phototropism in terms of auxins regulating differential growth, and the effects of synthetic plant hormones used as weed killers
- define homeostasis as the maintenance of a constant internal environment
- identify, on a diagram of the skin: hairs, sweat glands, temperature receptors, blood vessels and fatty tissue
- describe the maintenance of a constant body temperature in humans in terms of insulation and the role of temperature receptors in the skin, sweating, shivering, vasodilation and
- vasoconstriction of arterioles supplying skinsurface capillaries and the coordinating role of the brain
- explain the concept of control by negative feedback
- describe the control of the glucose content of the blood by the liver, and by insulin and glucagon from the pancreas
- define a drug as any substance taken into the body that modifies or affects chemical reactions in the body
- describe the medicinal use of antibiotics for the treatment of bacterial infection
- explain why antibiotics kill bacteria but not viruses
- describe the effects of the abuse of heroin: a powerful depressant, problems of addiction, severe withdrawal symptoms and associated problems such as crime and infection e.g. HIV/AIDS
- describe the effects of excessive consumption of alcohol: reduced self-control, depressant, effect on reaction times, damage to liver and social implications
- describe the effects of tobacco smoke and its major toxic components (tar, nicotine, carbon monoxide, smoke particles) on the gas exchange system

Standard 3: PHYSICAL SCIENCE: Students demonstrate an understanding of the composition of physical systems and the concepts and principles that describe and predict physical interactions and events in the natural world

Benchmark 1: Understand and demonstrate the knowledge of physical measurement
OUTCOME: the student should be able to :

- use and describe the use of rules and measuring cylinders to determine a length or a volume
- use and describe the use of clocks and devices for measuring an interval of time
- use and describe the use of a mechanical method for the measurement of a small distance
- measure and describe how to measure a short interval of time
- demonstrate an understanding of the difference between scalars and vectors and give common examples
- add vectors by graphical representation to determine a resultant

- determine graphically a resultant of two vectors

Benchmark 2: Understand and demonstrate the knowledge of Kinematics
OUTCOME: the student should be able to :

- define speed and calculate speed from : speed = total distance/ total time
- plot and interpret a speed/time graph or a distance/time graph
- recognize from the shape of a speed/time graph when a body is (a) at rest, (b) moving with constant speed, (c) moving with changing speed
- calculate the area under a speed/time graph to determine the distance travelled for motion with constant acceleration
- demonstrate some understanding that acceleration is related to changing speed
- state that the acceleration of free fall for a body near to the Earth is constant
- distinguish between speed and velocity
- recognise linear motion for which the acceleration is constant and calculate the acceleration
- recognise motion for which the acceleration is not constant
- describe qualitatively the motion of bodies falling in a uniform gravitational field with and without air resistance (including reference to terminal velocity)

Benchmark 3: Understand and demonstrate the knowledge of forces and motion
OUTCOME: the student should be able to :

- state that a force may produce a change in size and shape of a body
- plot extension/load graphs and describe the associated experimental procedure
- state Hooke's Law and recall and use the expression $F = k x$
- describe the ways in which a force may change the motion of a body
- find the resultant of two or more forces acting along the same line
- interpret extension/load graphs
- recognize the significance of the term 'limit of proportionality' for an extension/load graph
- recall and use the relation between force, mass and acceleration (including the direction)
- describe, qualitatively, motion in a curved path due to a perpendicular force
- show familiarity with the idea of the mass of a body
- state that weight is a force
- demonstrate understanding that weights (and hence masses) may be compared using a balance
- demonstrate an understanding that mass is a property which 'resists' change in motion
- describe, and use the concept of, weight as the effect of a gravitational field on a mass

Benchmark 4: Understand and demonstrate the knowledge of energy and energy transformation
OUTCOME: the student should be able to :

- demonstrate an understanding that an object may have energy due to its motion or its position, and that energy may be transferred and stored
- give examples of energy in different forms, including kinetic, gravitational, chemical, strain, nuclear, internal, electrical, light and sound
- recall and use the expressions K.E.= ½ mv^2 and P.E. = mgh

- give examples of the conversion of energy from one form to another
- apply the principle of energy conservation to simple examples
- describe how electricity or other useful forms of energy may be obtained from: chemical energy stored in fuel - water, including the energy stored in waves, in tides, and in water behind hydroelectric dams - geothermal resources - nuclear fission - heat and light from the Sun
- how an understanding that energy is released by nuclear fusion in the Sun
- show a qualitative understanding of efficiency
- relate, work done to the magnitude of a force and the distance moved
- describe energy changes in terms of work done
- recall and use $\Delta W = Fd = \Delta E$
- relate, power to work done and time taken, using appropriate examples
- recall and use the equation $P = E/t$ in simple systems

Benchmark 5: Understand and demonstrate the knowledge of thermal physics
OUTCOME: the student should be able to :

- describe qualitatively the thermal expansion of solids, liquids and gases
- show an appreciation of the relative order of magnitude of the expansion of solids, liquids and gases
- identify and explain some of the everyday applications and consequences of thermal expansion
- describe qualitatively the effect of a change of temperature on the volume of a gas at constant pressure
- appreciate how a physical property which varies with temperature may be used for the measurement of temperature and state examples of such properties
- describe the structure and action of liquid in-glass thermometers
- describe the structure of a thermocouple and show understanding of its use for measuring high temperatures and those which vary rapidly
- relate a rise in temperature of a body to an increase in internal energy
- show an understanding of the term thermal capacity -describe an experiment to measure the specific heat capacity of a substance
- describe melting and boiling in terms of energy input without a change in temperature
- state the meaning of melting point and boiling point
- describe condensation and solidification
- distinguish between boiling and evaporation
- use the terms latent heat of vaporization and latent heat of fusion and give a molecular interpretation of latent heat
- give a simple molecular account of heat transfer in solids relate convection in fluids to density changes and describe experiments to illustrate convection
- identify infra-red radiation as part of the electromagnetic spectrum
- describe experiments to show the properties of good and bad emitters and good and bad absorbers of infra-red radiation
- identify and explain some of the applications and consequences of conduction, convection and radiation.

Benchmark 6: Understand and demonstrate the knowledge of matter
OUTCOME: the student should be able to :

- describe an experiment to determine the density of a liquid and of a regularly

shaped solid and make the necessary calculation
- describe the determination of the density of an irregularly shaped solid by the method of displacement and make the necessary calculation
- relate, without calculation, pressure to force and area, using appropriate examples
- describe the simple mercury barometer and its use in measuring atmospheric pressure
- recall and use the equation p = F/A
- relate, the pressure beneath a liquid surface to depth and to density, using appropriate examples
- use and describe the use of a manometer
- recall and use the equation $p = h\rho g$
- state the distinguishing properties of solids, liquids and gases
- describe qualitatively the molecular structure of solids, liquids and gases
- relate the properties of solids, liquids and gases to the forces and distances between molecules and to the motion of the molecules
- interpret the temperature of a gas in terms of the motion of its molecules
- describe qualitatively the pressure of a gas in terms of the motion of its molecules
- describe qualitatively the effect of a change of temperature on the pressure of a gas at constant volume
- show an understanding of the random motion of particles in a suspension as evidence for the kinetic molecular model of matter
- describe this motion (sometimes known as Brownian motion) in terms of random molecular bombardment
- show an appreciation that massive particles may be moved by light, fast-moving Molecules
- describe evaporation in terms of the escape of more-energetic molecules from the surface of a liquid
- demonstrate an understanding of how temperature, surface area and draught over a surface influence evaporation
- relate evaporation and the consequent cooling
- relate the change in volume of a gas to change in pressure applied to the gas at constant temperature
- recall and use the equation pV = constant at constant temperature

Standard 4: **PHYSICAL SCIENCE**: Students know and understand the Chemical interactions between, the changes in, and the properties of matter

Benchmark 1: Understand and demonstrate the knowledge of atoms, elements and compounds
OUTCOME: the student should be able to :
- state the relative charges and approximate relative masses of protons, neutrons and electrons
- define proton number and nucleon number
- use proton number and the simple structure of atoms to explain the basis of the Periodic Table, with special reference to the elements of proton number 1 to 20
- define isotopes
- state the two types of isotopes as being radioactive and non- radioactive
- describe the build-up of electrons in ‘shells’ and understand the significance of the noble gas electronic structures and of valence electrons.

- describe the differences between elements, mixtures and compounds, and between metals and non-metals
- describe an alloy, such as brass, as a mixture of a metal with other elements
- describe the formation of ions by electron loss or gain
- describe the formation of ionic bonds between elements from Groups I and VII
- describe the formation of ionic bonds between metallic and non-metallic elements
- describe the lattice structure of ionic compounds as a regular arrangement of alternating positive and negative ions
- describe the formation of single covalent bonds in H_2, Cl_2, H_2O, CH_4 and HCl as the sharing of pairs of electrons leading to the noble gas configuration

Benchmark 2: Understand and demonstrate the knowledge of the periodic table
OUTCOME: the student should be able to :

- describe the Periodic Table as a method of classifying elements and its use to predict properties of elements
- describe the change from metallic to non-metallic character across a period
- describe the relationship between Group number, number of valency electrons and metallic/non-metallic character
- describe lithium, sodium and potassium in Group I as a collection of relatively soft metals showing a trend in melting point, density and reaction with water
- predict the properties of other elements in Group I, given data, where appropriate
- describe chlorine, bromine and iodine in Group VII as a collection of diatomic nonmetals showing a trend in colour, state and their reaction with other halide ions
- predict the properties of other elements in Group VII, given data, where appropriate

Benchmark 3: Understand and demonstrate the knowledge of metals
OUTCOME: the student should be able to :

- describe the general physical and chemical properties of metals
- explain why metals are often used in the form of alloys
- deduce an order of reactivity from a given set of experimental results

Benchmark 4: Understand and demonstrate the knowledge of acids, bases and salts
OUTCOME: the student should be able to :

- describe the characteristic properties of acids as reactions with metals, bases, carbonates and effect on litmus
- define acids and bases in terms of proton transfer, limited to aqueous solutions
- describe the characteristic properties of bases as reactions with acids and with ammonium salts and effect on litmus
- describe the meaning of weak and strong acids and bases
- describe neutrality and relative acidity and alkalinity in terms of pH (whole numbers only) measured using Universal Indicator paper

Standard 5: **EARTH and SPACE SCIENCE** : Students will understand the structures and changes of the earth and universe.

Benchmark 1: Understand and demonstrate the knowledge of Earth and solar system
OUTCOME: the student should be able to :

- describe the structure of Earth.

- describe how seismic waves can tell us about the structure of the inside of the Earth
- give the names and properties of the 3 basic types of seismic wave
- explain the forming of day and night.
- state that the Earth's axis is tilted, and explain how this gives us seasons.
- describe the Moon phases.
- explain how the Moon's gravity plays a large part in causing tides in the Earth's oceans.
- state that Solar System consists of the Sun, planets, moons, asteroids and comets
- describe the planets' orbits.
- give the names of the planets, and the correct order to place them
- state that the Universe began long before the Solar System was formed
- describe how the Solar System was formed
- distinguish between Galaxies, Stars, Planets, Moons, Comets and asteroid.
- describe how scientists are searching for life on other planets.
- discuss the difficulties encountered in manned space exploration.

Grade 10

Standard 1: SCIENTIFIC INQUIRY: Students understand the nature of scientific knowledge and enterprise, and apply the process of scientific inquiry.

Benchmark 1: Identify questions and concepts that guide science investigations
OUTCOME: the student should be able to :

- state a clear focused problem or research question to be tested by a scientific investigation.
- formulate a testable hypothesis and explain it using scientific reasoning .

Benchmark 2: Design and conduct scientific investigations
OUTCOME: the student should be able to :

- select appropriate materials and equipment and write complete method, mentioning all variables involved and how to manipulate them.
- make comments on the method, and the accuracy and precision of the data.
- make comments on the how the hypothesis is supported or not by the data/outcome of the investigation
- work safely and uses material and equipment competently.
- work responsibly with regards to the living and non-living environment.
- cooperate with others.

Benchmark 3: Collect and process the data in a scientific investigation and communicate the conclusions
OUTCOME: the student should be able to :

- collect sufficient relevant data and record it in a suitable format.
- organize, transforms and presents data in numerical (including mathematical calculations) and/or visual forms (tables, graphs and charts) correctly.
- attempt to describe a trend, pattern or relationship in the data.
- draw a conclusion based on the interpretation of the data .
- suggest realistic improvements to the method.

Benchmark 4: understand the interdependence of science and society
OUTCOME: the student should be able to :

- explain the ways in which science is applied and used to address specific problems or issues
- discuss the effectiveness of science and its application in solving problems or issues
- discuss and evaluate the moral, ethical, social, economic, political, cultural and environmental implications of the use of science and its application in solving specific problems or issues.

Benchmark 5: Communicate and defend a scientific argument
OUTCOME: the student should be able to :

- uses scientific language correctly.
- communicate ideas and findings in science.
- acknowledge the work of others and the sources of information used by documenting them using a recognized referencing system.

Standard 2: LIFE SCIENCE – Students know and understand the characteristics, structure, and function of organisms and their systems; the processes of life, and how organisms interact with each other and their environment.

Benchmark 1: Understand and demonstrate knowledge of classification
OUTCOME: the student should be able to :

- define and describe the binomial system of naming species as a system in which the scientific name of an organism is made up of two parts showing the genus and species
- classify the five main classes of vertebrates using visible, external characteristic features only
- list the main features used in the classification of the following groups: viruses, bacteria and fungi, and their adaptation to the environment, as appropriate
- list the main features used in the classification of the following groups: flowering plants (monocotyledons and dicotyledons), arthropods (insects, crustaceans, arachnids and myriapods), annelids, nematodes and mollusks, using visible, external characteristic features only

Benchmark 2: Understand and demonstrate the knowledge of principles of heredity
OUTCOME: the student should be able to :

- define inheritance as the transmission of genetic information from generation to generation
- define the terms:
- chromosome as a thread of DNA, made up of a string of genes
- gene as a length of DNA that is the unit of heredity and codes for a specific protein. A gene may be copied and passed on to the next generation
- allele as any of two or more alternative forms of a gene
- haploid nucleus as a nucleus containing a single set of unpaired chromosomes (e.g. sperm and egg)
- diploid nucleus as a nucleus containing two sets of chromosomes (e.g. in body cells)
- describe the inheritance of sex in humans (XX and XY chromosomes)
- define mitosis as nuclear division giving rise to genetically identical cells in which the chromosome number is maintained by the exact duplication of chromosomes
- state the role of mitosis in growth, repair of damaged tissues, replacement of worn out cells and asexual reproduction
- define meiosis as reduction division in which the chromosome number is halved from diploid to haploid
- state that gametes are the result of meiosis
- state that meiosis results in genetic variation so the cells produced are not all genetically identical
- define the terms:
- genotype as genetic makeup of an organism in terms of the alleles present (e.g. Tt or GG)
- phenotype as the physical or other features of an organism due to both its genotype and its environment

- homozygous as having two identical alleles of a particular gene (e.g. TT or gg). Two identical homozygous individuals that breed
- together will be pure-breeding
- heterozygous as having two different alleles of a particular gene (e.g. Tt or Gg), not purebreeding
- dominant as an allele that is expressed if it is present (e.g. T or G)
- recessive as an allele that is only expressed when there is no dominant allele of the gene present
- calculate and predict the results of monohybrid crosses involving 1 : 1 and 3 : 1 ratios
- explain codominance by reference to the inheritance of ABO blood groups, phenotypes, A, B, AB and O blood groups and genotypes I^A, IB and IO
- state that continuous variation is influenced by genes and environment, resulting in a range of phenotypes between two extremes, e.g. height in humans
- define mutation as a change in a gene or chromosome
- outline the effects of ionizing radiation and chemicals on the rate of mutation
- describe sickle cell anemia, and explain its incidence in relation to that of malaria
- describe the role of artificial selection in the production of varieties of animals and plants with increased economic importance
- define natural selection as the greater chance of passing on of genes by the best adapted organisms
- describe variation and state that competition leads to differential survival of, and reproduction by, those organisms best fitted tothe environment
- assess the importance of natural selection as a possible mechanism for evolution
- describe the development of strains of antibiotic resistant bacteria as an example of natural selection
- define genetic engineering as taking a gene from one species and putting it into another species
- explain why, and outline how human insulin genes were put into bacteria using genetic engineering

Benchmark 3: Understands and demonstrates the knowledge of the relationships among organisms and their physical environment including environmental issues

OUTCOME: the student should be able to :

- state that the Sun is the principal source of energy input to biological systems
- describe the non-cyclical nature of energy flow
- define the terms:
- food chain as a chart showing the flow of energy (food) from one organism to the next beginning with a producer (e.g. mahogany tree _ caterpillar _ song bird _ hawk)
- food web as a network of interconnected food chains showing the energy flow through part of an ecosystem
- producer as an organism that makes its own organic nutrients, usually using energy from sunlight, through photosynthesis
- consumer as an organism that gets its energy by feeding on other organisms
- herbivore as an animal that gets its energy by eating plants
- carnivore as an animal that gets its energy by eating other animals
- decomposer as an organism that gets its energy from dead or waste organic matter

- ecosystem as a unit containing all of the organisms and their environment, interacting together, in a given area e.g. decomposing log or a lake
- trophic level as the position of an organism in a food chain, food web or pyramid of biomass, numbers or energy
- explain why food chains usually have fewer than five trophic levels
- explain why there is an increased efficiency in supplying green plants as human food and that there is a relative inefficiency, in terms of energy loss, in feeding crop plants to animals
- describe energy losses between trophic levels
- draw, describe and interpret pyramids of biomass and numbers
- describe the carbon and the water cycles
- describe the nitrogen cycle in terms of:
- the role of microorganisms in providing usable nitrogen-containing substances by decomposition and by nitrogen fixation in roots
- the absorption of these substances by plants and their conversion to protein
- followed by passage through food chains, death, decay
- nitrification and denitrification and the return of nitrogen to the soil or the atmosphere
- discuss the effects of the combustion of fossil fuels and the cutting down of forests on the oxygen and carbon dioxide concentrations in the atmosphere
- define population as a group of organisms of one species, living in the same area at the same time
- state the factors affecting the rate of population growth for a population of an organism (limited to food supply, predation and disease), and describe their importance
- identify the lag, exponential (log), stationary and death phases in the sigmoid population growth curve for a population growing in an environment with limited resources
- describe the increase in human population size and its social implications
- interpret graphs and diagrams of human population growth
- explain the factors that lead to the lag phase, exponential (log) phase and stationary phase in the sigmoid curve of population growth making reference, where appropriate, to the role of
- limiting factors
- outline the effects of humans on ecosystems, with emphasis on examples of international importance (tropical rain forests, oceans and important rivers)
- list the undesirable effects of deforestation (to include extinction, loss of soil, flooding, carbon dioxide build up)
- describe the undesirable effects of overuse of fertilisers (to include eutrophication of lakes and rivers)
- describe the undesirable effects of pollution to include:
- water pollution by sewage and chemical waste
- air pollution by sulfur dioxide
- air pollution by greenhouse gases (carbon dioxide and methane) contributing to global warming
- pollution due to pesticides and herbicides

Standard 3: **PHYSICAL SCIENCE**: Students demonstrate an understanding of the composition of physical systems and the concepts and principles that describe and predict physical interactions and events in the natural world

Benchmark 1: Understand and demonstrate the knowledge of waves and waves properties
OUTCOME: the student should be able to :

- describe what is meant by wave motion as illustrated by vibration in ropes, springs and by experiments using water waves
- give the meaning of speed, frequency, wavelength and amplitude
- recall and use the equation $v = f\lambda$
- distinguish between transverse and longitudinal waves and give suitable examples
- describe the use of water waves to show : reflection at a plane surface, refraction due to a change of speed and diffraction produced by wide and narrow gaps
- interpret reflection, refraction and diffraction using wave theory
- describe the production of sound by vibrating sources
- describe the longitudinal nature of sound waves
- state the approximate range of audible frequencies
- show an understanding that a medium is required in order to transmit sound waves
- describe an experiment to determine the speed of sound in air
- relate the loudness and pitch of sound waves to amplitude and frequency
- describe how the reflection of sound may produce an echo
- describe compression and rarefaction
- state the order of magnitude of the speed of sound in air, liquids and solids

Benchmark 2: Understand and demonstrate the knowledge of light and light properties
OUTCOME: the student should be able to :

- describe the formation, and give the characteristics, of an optical image by a plane mirror
- use the law angle of incidence = angle of reflection
- describe an experimental demonstration of the refraction of light
- use the terminology for the angle of incidence i and angle of refraction r and describe the passage of light through parallel-sided transparent material
- recall and use the equation $\sin i / \sin r = n$
- give the meaning of critical angle
- describe internal and total internal reflection
- recall and use the definition of refractive index n in terms of speed
- describe the action of optical fibres
- describe the action of a thin converging lens on a beam of light
- use the term principal focus and focal length
- draw ray diagrams to illustrate the formation of a real image by a single lens
- draw ray diagrams to illustrate the formation of a virtual image by a single lens
- use and describe the use of a single lens as a magnifying glass.
- give a qualitative account of the dispersion of light as illustrated by the action on light of a glass prism
- describe the main features of the electromagnetic spectrum and state that all e.m. waves travel with the same high speed in vacuum
- state the approximate value of the speed of electro-magnetic waves
- use the term monochromatic

Benchmark 3: Understand and demonstrate the knowledge of electricity

OUTCOME: the student should be able to :

- describe simple experiments to show the production and detection of electrostatic charges
- state that there are positive and negative charges
- state that unlike charges attract and that like charges repel
- describe an electric field as a region in which a charge experiences a force
- distinguish between electrical conductors and insulators and give typical examples
- state that charge is measured in coulombs
- state the direction of lines of force and describe simple field patterns, including the field around a point charge and between two parallel plates
- give an account of charging by induction
- recall and use the simple electron model to distinguish between conductors and insulators
- state that current is related to the flow of charge
- use and describe the use of an ammeter
- show understanding that a current is a rate of flow of charge and recall and use the equation $I = Q/t$
- distinguish between the direction of flow of electrons and conventional current
- state that the e.m.f. of a source of electrical energy is measured in volts
- show understanding that e.m.f. is defined in terms of energy supplied by a source in driving charge round a complete circuit
- state that the potential difference across a component is measured in volts
- use and describe the use of a voltmeter
- state that resistance = p.d. / current and understand qualitatively how changes in p.d. or resistance affect current
- recall and use the equation $R = V/I$
- describe an experiment to determine resistance using a voltmeter and an ammeter
- relate (without calculation) the resistance of a wire to its length and to its diameter
- recall and use quantitatively the proportionality between resistance and the length and the inverse proportionality between resistance and cross-sectional area of a wire
- recall and use the equations $P = I V$ and $E = I V t$
- draw and interpret circuit diagrams containing sources, switches, resistors (fixed and variable), lamps, ammeters voltmeters, magnetising coils, transformers, bells, fuses and relays
- understand that the current at every point in a series circuit is the same
- give the combined resistance of two or more resistors in series
- state that, for a parallel circuit, the current from the source is larger than the current in each branch
- recall and use the fact that the current from the source is the sum of the currents in the separate branches of a parallel circuit
- state that the combined resistance of two resistors in parallel is less than that of either resistor by itself
- state the advantages of connecting lamps in parallel in a lighting circuit
- describe the action of a variable potential divider (potentiometer)
- describe the action of thermistors and light dependent resistors and show understanding of their use as input transducers
- describe the action of a relay and show understanding of its use in switching

circuits
- state the hazards of
- damaged insulation
- overheating of cables
- damp conditions
- show an understanding of the use of fuses and circuit-breakers

Benchmark 4: Understand and demonstrate the knowledge of magnetism
OUTCOME: the student should be able to :
- state the properties of magnets
- give an account of induced magnetism
- describe methods of magnetization and of demagnetization
- describe an experiment to identify the pattern of field lines round a bar magnet
- distinguish between the magnetic properties of iron and steel
- distinguish between the design and use of permanent magnets and electromagnets
- describe an experiment which shows that a changing magnetic field can induce an e.m.f. in a circuit
- state the factors affecting the magnitude of an induced e.m.f.
- describe a rotating-coil generator and the use of slip rings
- sketch a graph of voltage output against time for a simple a.c. generator
- describe the construction of a basic iron cored transformer as used for voltage transformations
- describe the principle of operation of a transformer
- describe the use of the transformer in high-voltage transmission of electricity
- explain why energy losses in cables are lower when the voltage is high
- describe the pattern of the magnetic field due to currents in straight wires and in solenoids
- describe applications of the magnetic effect of current, including the action of a relay
- explain why energy losses in cables are lower when the voltage is high
- state the qualitative variation of the strength of the magnetic field over salient parts of the pattern
- describe the effect on the magnetic field of changing the magnitude and direction of the current
- describe an experiment to show that a force acts on a current-carrying conductor in a magnetic field.
- describe an experiment to show the corresponding force on beams of charged particles
- state and use the relative directions of force, field and current
- state that a current-carrying coil in a magnetic field experiences a turning effect and that the effect is increased by increasing the number of turns on the coil

Benchmark 5: Understand and demonstrate the knowledge of atomic and nuclear physics
OUTCOME: the student should be able to :
- show awareness of the existence of background radiation
- describe the detection of α-particles, β-particles and γ-rays (β^+ is not included)
- state that radioactive emissions occur randomly over space and time
- state, for radioactive emissions their nature, their relative ionising effects and their relative penetrating abilities

- describe their deflection in electric fields and magnetic fields
- interpret their relative ionising effects
- state the meaning of radioactive decay, using equations (involving words or symbols) to represent changes in the composition of the nucleus when particles are emitted
- use the term half-life in simple calculations which might involve information in tables or decay curves
- describe how radioactive materials are handled, used and stored in a safe way
- describe the structure of an atom in terms of a nucleus and electrons
- describe how the scattering of α-particles by thin metal foils provides evidence for the nuclear atom
- describe the composition of the nucleus in terms of protons and neutrons
- use the term proton number Z and nucleon number A
- use the term nuclide and use the nuclide notation ${}^{A}_{Z}X$
- use the term isotope

Standard 4: **PHYSICAL SCIENCE**: Students know and understand the Chemical interactions between, the changes in, and the properties of matter

Benchmark 1: Understand and demonstrate the knowledge stoichiometric functions
OUTCOME: the student should be able to :

- use the symbols of the elements and write the formulae of simple compounds
- deduce the formula of a simple compound from the relative numbers of atoms present
- deduce the formula of a simple compound from a model or a diagrammatic representation
- determine the formula of an ionic compound from the charges on the ions present
- construct equations with state symbols, including ionic equations
- deduce the balanced equation for a chemical reaction, given relevant information
- construct word equations and simple balanced chemical equations
- define relative atomic mass, Ar
- define relative molecular mass, Mr, as the sum of the relative atomic masses .
- define the mole and the Avogadro constant
- use the molar gas volume, taken as 24 dm^3 at room temperature and pressure
- calculate stoichiometric reacting masses and volumes of gases and solutions, solution concentrations expressed in g/dm^3 and mol/dm^3.
- calculate empirical formulae and molecular formulae
- define the mole and the Avogadro constant
- use the molar gas volume, taken as 24 dm^3 at room temperature and pressure

Benchmark 2: Understand and demonstrate the knowledge of electricity in chemistry
OUTCOME: the student should be able to :

- state the general principle that metals or hydrogen are formed at the negative electrode (cathode), and that non-metals (other than hydrogen) are formed at the positive electrode (anode)
- predict the products of the electrolysis of a specified binary compound in the molten state
- describe electrolysis in terms of the ions present and reactions at the electrodes.

Benchmark 3: Understand and demonstrate the knowledge of different chemical reactions and chemical changes

OUTCOME: the student should be able to :

- describe the meaning of exothermic and endothermic reactions
- describe bond breaking as endothermic and bond forming as exothermic
- describe the effect of light on the speed of reactions
- describe the use of silver salts in photography as a process of reduction of silver ions to silver; and photosynthesis as the reaction between carbon dioxide and water in the presence of chlorophyll and sunlight (energy) to produce glucose
- define oxidation and reduction in terms of oxygen loss/gain.
- define redox in terms of electron transfer
- identify redox reactions by changes in oxidation state and by the colour changes involved when using acidified potassium manganate(VII), and potassium iodide.

Benchmark 4: Understand and demonstrate the knowledge of air and water

OUTCOME: the student should be able to :

- describe a chemical test for water
- describe, in outline, the purification of the water supply in terms of filtration and chlorination
- describe the composition of clean air as being approximately 79% nitrogen, 20% oxygen and the remainder as being a mixture of noble gases, water vapour and carbon dioxide
- carbon monoxide from the incomplete combustion of carbon-containing substances
- describe methods of rust prevention, specifically paint and other coatings to exclude oxygen
- describe the need for nitrogen-,phosphorus- and potassium-containing fertilisers
- describe the formation of carbon dioxide: as a product of complete combustion of carbon-containing substances , as a product of respiration and as a product of the reaction between an acid and a carbonate

Benchmark 5: Understand and demonstrate the knowledge of organic chemistry

OUTCOME: the student should be able to :

- name, and draw the structures of the unbranched alkanes, alkenes, alcohols and acids containing up to four carbon atoms per molecule
- state the type of compound present given a chemical name, ending in -ane, -ene, -ol, or -oic acid, or a molecular structure
- describe the concept of homologous series as a ‘family’ of similar compounds with similar properties due to the presence of the same functional group
- describe the general characteristics of an homologous series
- describe and identify structural isomerism
- describe the properties of alkanes (exemplified by methane) as being generally unreactive, except in terms of burning
- distinguish between saturated and unsaturated hydrocarbons from molecular structures by simple chemical tests

Standard 5: EARTH and SPACE SCIENCE : Students will understand the structures and changes of the earth and universe.

Benchmark 1: Understand and demonstrate the knowledge of Earth structure, volcanoes and earthquakes

OUTCOME: the student should be able to :

- describe the structure of Earth.
- compare between igneous, metamorphic and sedimentary rocks.
- explain what causes the movement of tectonic plates.
- explain the effects of the movement of tectonic plates in forming mountains and valleys.
- describe how earthquakes occur.
- discuss why scientists cannot accurately predict when an earthquake will take place.
- describe the structure of the volcano.
- explain how volcanoes are formed.
- discuss the ability of scientists to predict the eruption of a volcano.

Grade 11

Standard 1: **SCIENTIFIC INQUIRY**: Students understand the nature of scientific knowledge and enterprise, and apply the process of scientific inquiry.

Benchmark 1: Identify questions and concepts that guide science investigations
OUTCOME: the student should be able to :

- formulate a focused problem/research question
- identify the relevant variables.

Benchmark 2: Design and conduct scientific investigations
OUTCOME: the student should be able to :

- design a method for the effective control of the variables.
- develop a method that allows for the collection of sufficient relevant data.
- follow instructions accurately, adapting to new circumstances (seeking assistance when required).
- use of a range of techniques and equipment.
- pay attention to safety issues.
- collaborate and communicate in a group situation and integrate the views of others.

Benchmark 3: Collect and process the data in a scientific investigation and communicate the conclusions
OUTCOME: the student should be able to :

- record appropriate quantitative and associated qualitative raw data, including units and uncertainties where relevant.
- process the quantitative raw data correctly.
- present processed data appropriately and, where relevant, includes errors and uncertainties.
- state a conclusion, with justification, based on a reasonable interpretation of the data.
- evaluate weaknesses and limitations.
- suggest realistic improvements in respect of identified weaknesses and limitations.

Benchmark 4: understand the interdependence of science and society
OUTCOME: the student should be able to :

- raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology
- develop an appreciation of the possibilities and limitations associated with science and scientists
- encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

Benchmark 5: Communicate and defend a scientific argument
OUTCOME: the student should be able to :

- uses scientific language correctly.
- communicate ideas and findings in science.
- acknowledge the work of others and the sources of information used by documenting them using a recognized referencing system.

Standard 2: LIFE SCIENCE – Students know and understand the characteristics, structure, and function of organisms and their systems; the processes of life, and how organisms interact with each other and their environment.

Benchmark 1: Understand and demonstrate the knowledge of Statistical analysis
OUTCOME: the student should be able to:

- State that error bars are a graphical representation of the variability of data.
- Calculate the mean and standard deviation of a set of values.
- State that the term standard deviation is used to summarize the spread of values around the mean, and that 68% of the values fall within one standard deviation of the mean.
- Explain how the standard deviation is useful for comparing the means and the spread of data between two or more samples.
- Deduce the significance of the difference between two sets of data using calculated values for t and the appropriate tables.
- Explain that the existence of a correlation does not establish that there is a causal relationship between two variables.

Benchmark 2: Understand and demonstrate the knowledge of Cells
OUTCOME: the student should be able to:

- Outline the cell theory.
- Discuss the evidence for the cell theory.
- State that unicellular organisms carry out all the functions of life.
- Compare the relative sizes of molecules, cell membrane thickness, viruses, bacteria, organelles and cells, using the appropriate SI unit.
- Calculate the linear magnification of drawings and the actual size of specimens in images of known magnification.
- Explain the importance of the surface area to volume ratio as a factor limiting cell size.
- State that multicellular organisms show emergent properties.
- Explain that cells in multicellular organisms differentiate to carry out specialized functions by expressing some of their genes but not others.
- State that stem cells retain the capacity to divide and have the ability to differentiate along different pathways.
- Outline one therapeutic use of stem cells
- Draw and label a diagram of the ultrastructure of Escherichia coli (E. coli) as an example of a prokaryote.
- Annotate the diagram from 2.2.1 with the functions of each named structure.
- Identify structures from 2.2.1 in electron micrographs of E. coli.
- State that prokaryotic cells divide by binary fission
- Draw and label a diagram of the ultrastructure of a liver cell as an example of an animal cell.
- Annotate the diagram from 2.3.1 with the functions of each named structure.
- Identify structures from 2.3.1 in electron micrographs of liver cells.
- Compare prokaryotic and eukaryotic cells.
- State three differences between plant and animal cells.
- Outline two roles of extracellular components.

- Draw and label a diagram to show the structure of membranes.
- Explain how the hydrophobic and hydrophilic properties of phospholipids help to maintain the structure of cell membranes.
- List the functions of membrane proteins.
- Define diffusion and osmosis.
- Explain passive transport across membranes by simple diffusion and facilitated diffusion.
- Explain the role of protein pumps and ATP in active transport across membranes.
- Explain how vesicles are used to transport materials within a cell between the rough endoplasmic reticulum, Golgi apparatus and plasma membrane.
- Describe how the fluidity of the membrane allows it to change shape, break and re-form during endocytosis and exocytosis.
- Outline the stages in the cell cycle, including interphase (G1, S, G2), mitosis and cytokinesis.
- State that tumours (cancers) are the result of uncontrolled cell division and that these can occur in any organ or tissue.
- State that interphase is an active period in the life of a cell when many metabolic reactions occur, including protein synthesis, DNA replication and an increase in the number of mitochondria and/or chloroplasts.
- Describe the events that occur in the four phases of mitosis (prophase, metaphase, anaphase and telophase).
- Explain how mitosis produces two genetically identical nuclei.
- State that growth, embryonic development, tissue repair and asexual reproduction involve mitosis.

Benchmark 3: Understand and demonstrate the knowledge of the chemistry of life
OUTCOME: the student should be able to:

- State that the most frequently occurring chemical elements in living things are carbon, hydrogen, oxygen and nitrogen.
- State that a variety of other elements are needed by living organisms, including sulfur, calcium, phosphorus, iron and sodium.
- State one role for each of the elements mentioned in 3.1.2.
- Draw and label a diagram showing the structure of water molecules to show their polarity and hydrogen bond formation.
- Outline the thermal, cohesive and solvent properties of water.
- Explain the relationship between the properties of water and its uses in living organisms as a coolant, medium for metabolic reactions and transport medium.
- Distinguish between organic and inorganic compounds.
- Identify amino acids, glucose, ribose and fatty acids from diagrams showing their structure.
- List three examples each of monosaccharides, disaccharides and polysaccharides.
- State one function of glucose, lactose and glycogen in animals, and of fructose, sucrose and cellulose in plants.
- Outline the role of condensation and hydrolysis in the relationships between monosaccharides, disaccharides and polysaccharides; between fatty acids, glycerol and triglycerides; and between amino acids and polypeptides.
- State three functions of lipids.
- Compare the use of carbohydrates and lipids in energy storage.

- Outline DNA nucleotide structure in terms of sugar (deoxyribose), base and phosphate.
- State the names of the four bases in DNA.
- Outline how DNA nucleotides are linked together by covalent bonds into a single strand.
- Explain how a DNA double helix is formed using complementary base pairing and hydrogen bonds.
- Draw and label a simple diagram of the molecular structure of DNA.
- Explain DNA replication in terms of unwinding the double helix and separation of the strands by helicase, followed by formation of the new complementary strands by DNA polymerase.
- Explain the significance of complementary base pairing in the conservation of the base sequence of DNA.
- State that DNA replication is semi-conservative.
- Compare the structure of RNA and DNA.
- Outline DNA transcription in terms of the formation of an RNA strand complementary to the DNA strand by RNA polymerase.
- Describe the genetic code in terms of codons composed of triplets of bases.
- Explain the process of translation, leading to polypeptide formation.
- Discuss the relationship between one gene and one polypeptide.
- Define enzyme and active site.
- Explain enzyme–substrate specificity.
- Explain the effects of temperature, pH and substrate concentration on enzyme activity.
- Define denaturation.
- Explain the use of lactase in the production of lactose-free milk.
- Define cell respiration.
- State that, in cell respiration, glucose in the cytoplasm is broken down by glycolysis into pyruvate, with a small yield of ATP.
- Explain that, during anaerobic cell respiration, pyruvate can be converted in the cytoplasm into lactate, or ethanol and carbon dioxide, with no further yield of ATP.
- Explain that, during aerobic cell respiration, pyruvate can be broken down in the mitochondrion into carbon dioxide and water with a large yield of ATP.
- State that photosynthesis involves the conversion of light energy into chemical energy.
- State that light from the Sun is composed of a range of wavelengths (colours).
- State that chlorophyll is the main photosynthetic pigment.
- Outline the differences in absorption of red, blue and green light by chlorophyll.
- State that light energy is used to produce ATP, and to split water molecules (photolysis) to form oxygen and hydrogen.
- State that ATP and hydrogen (derived from the photolysis of water) are used to fix carbon dioxide to make organic molecules.
- Explain that the rate of photosynthesis can be measured directly by the production of oxygen or the uptake of carbon dioxide, or indirectly by an increase in biomass.
- Outline the effects of temperature, light intensity and carbon dioxide concentration on the rate of photosynthesis.

Benchmark 4: Understand and demonstrate the knowledge of genetics
OUTCOME: the student should be able to:

- State that eukaryote chromosomes are made of DNA and proteins.
- Define gene, allele and genome.
- Define gene mutation.
- Explain the consequence of a base substitution mutation in relation to the processes of transcription and translation, using the example of sickle-cell anemia.
- State that meiosis is a reduction division of a diploid nucleus to form haploid nuclei.
- Define homologous chromosomes.
- Outline the process of meiosis, including pairing of homologous chromosomes and crossing over, followed by two divisions, which results in four haploid cells.
- Explain that non-disjunction can lead to changes in chromosome number, illustrated by reference to Down syndrome (trisomy 21).
- State that, in karyotyping, chromosomes are arranged in pairs according to their size and structure.
- State that karyotyping is performed using cells collected by chorionic villus sampling or amniocentesis, for pre-natal diagnosis of chromosome abnormalities.
- Analyse a human karyotype to determine gender and whether non-disjunction has occurred.
- Define genotype, phenotype, dominant allele, recessive allele, codominant alleles, locus, homozygous, heterozygous, carrier and test cross.
- Determine the genotypes and phenotypes of the offspring of a monohybrid cross using a Punnett grid.
- State that some genes have more than two alleles (multiple alleles).
- Describe ABO blood groups as an example of codominance and multiple alleles.
- Explain how the sex chromosomes control gender by referring to the inheritance of X and Y chromosomes in humans.
- State that some genes are present on the X chromosome and absent from the shorter Y chromosome in humans.
- Define sex linkage.
- Describe the inheritance of colour blindness and hemophilia as examples of sex linkage.
- State that a human female can be homozygous or heterozygous with respect to sex-linked genes.
- Explain that female carriers are heterozygous for X-linked recessive alleles.
- Predict the genotypic and phenotypic ratios of offspring of monohybrid crosses involving any of the above patterns of inheritance.
- Deduce the genotypes and phenotypes of individuals in pedigree charts.
- Outline the use of polymerase chain reaction (PCR) to copy and amplify minute quantities of DNA.
- State that, in gel electrophoresis, fragments of DNA move in an electric field and are separated according to their size.
- State that gel electrophoresis of DNA is used in DNA profiling.
- Describe the application of DNA profiling to determine paternity and also in forensic investigations.
- Analyse DNA profiles to draw conclusions about paternity or forensic investigations.
- Outline three outcomes of the sequencing of the complete human genome.

- State that, when genes are transferred between species, the amino acid sequence of polypeptides translated from them is unchanged because the genetic code is universal.
- Outline a basic technique used for gene transfer involving plasmids, a host cell (bacterium, yeast or other cell), restriction enzymes (endonucleases) and DNA ligase.
- State two examples of the current uses of genetically modified crops or animals.
- Discuss the potential benefits and possible harmful effects of one example of genetic modification.
- Define clone.
- Outline a technique for cloning using differentiated animal cells.
- Discuss the ethical issues of therapeutic cloning in humans.

Benchmark 5: Understand and demonstrate the knowledge of human health and physiology
OUTCOME: the student should be able to:

- Explain why digestion of large food molecules is essential.
- Explain the need for enzymes in digestion.
- State the source, substrate, products and optimum pH conditions for one amylase, one protease and one lipase.
- Draw and label a diagram of the digestive system.
- Outline the function of the stomach, small intestine and large intestine.
- Distinguish between absorption and assimilation.
- Explain how the structure of the villus is related to its role in absorption and transport of the products of digestion.
- Draw and label a diagram of the heart showing the four chambers, associated blood vessels, valves and the route of blood through the heart.
- State that the coronary arteries supply heart muscle with oxygen and nutrients.
- Explain the action of the heart in terms of collecting blood, pumping blood, and opening and closing of valves.
- Outline the control of the heartbeat in terms of myogenic muscle contraction, the role of the pacemaker, nerves, the medulla of the brain and epinephrine (adrenaline).
- Explain the relationship between the structure and function of arteries, capillaries and veins.
- State that blood is composed of plasma, erythrocytes, leucocytes (phagocytes and lymphocytes) and platelets.
- State that the following are transported by the blood: nutrients, oxygen, carbon dioxide, hormones, antibodies, urea and heat.
- Define pathogen.
- Explain why antibiotics are effective against bacteria but not against viruses.
- Outline the role of skin and mucous membranes in defence against pathogens.
- Outline how phagocytic leucocytes ingest pathogens in the blood and in body tissues.
- Distinguish between antigens and antibodies.
- Explain antibody production.
- Outline the effects of HIV on the immune system.
- Discuss the cause, transmission and social implications of AIDS.
- Distinguish between ventilation, gas exchange and cell respiration.

- Explain the need for a ventilation system.
- Describe the features of alveoli that adapt them to gas exchange.
- Draw and label a diagram of the ventilation system, including trachea, lungs, bronchi, bronchioles and alveoli.
- Explain the mechanism of ventilation of the lungs in terms of volume and pressure changes caused by the internal and external intercostal muscles, the diaphragm and abdominal muscles.
- State that the nervous system consists of the central nervous system (CNS) and peripheral nerves, and is composed of cells called neurons that can carry rapid electrical impulses.
- Draw and label a diagram of the structure of a motor neuron.
- State that nerve impulses are conducted from receptors to the CNS by sensory neurons, within the CNS by relay neurons, and from the CNS to effectors by motor neurons.
- Define resting potential and action potential (depolarization and repolarization).
- Explain how a nerve impulse passes along a non-myelinated neuron.
- Explain the principles of synaptic transmission.
- State that the endocrine system consists of glands that release hormones that are transported in the blood.
- State that homeostasis involves maintaining the internal environment between limits, including blood pH, carbon dioxide concentration, blood glucose concentration, body temperature and water balance.
- Explain that homeostasis involves monitoring levels of variables and correcting changes in levels by negative feedback mechanisms.
- Explain the control of body temperature, including the transfer of heat in blood, and the roles of the hypothalamus, sweat glands, skin arterioles and shivering.
- Explain the control of blood glucose concentration, including the roles of glucagon, insulin and α and β cells in the pancreatic islets.
- Distinguish between type I and type II diabetes.
- Draw and label diagrams of the adult male and female reproductive systems.
- Outline the role of hormones in the menstrual cycle, including FSH (follicle stimulating hormone), LH (luteinizing hormone), estrogen and progesterone.
- Annotate a graph showing hormone levels in the menstrual cycle, illustrating the relationship between changes in hormone levels and ovulation, menstruation and thickening of the endometrium.
- List three roles of testosterone in males.
- Outline the process of in vitro fertilization (IVF).
- Discuss the ethical issues associated with IVF.

Standard 3: PHYSICAL SCIENCE: Students demonstrate an understanding of the composition of physical systems and the concepts and principles that describe and predict physical interactions and events in the natural world

Benchmark 1: Understand and demonstrate the knowledge of physical measurement
OUTCOME: the student should be able to :

- State and compare quantities to the nearest order of magnitude.
- State the ranges of magnitude of distances, masses and times that occur in the universe, from smallest to greatest.

- State ratios of quantities as differences of orders of magnitude.
- Estimate approximate values of everyday quantities to one or two significant figures and/or to the nearest order of magnitude.
- State the fundamental units in the SI system.
- Distinguish between fundamental and derived units and give examples of derived units.
- Convert between different units of quantities.
- State units in the accepted SI format.
- State values in scientific notation and in multiples of units with appropriate prefixes.
- Describe and give examples of random and systematic errors.
- Distinguish between precision and accuracy.
- Explain how the effects of random errors may be reduced.
- Calculate quantities and results of calculations to the appropriate number of significant figures.
- State uncertainties as absolute, fractional and percentage uncertainties.
- Determine the uncertainties in results.
- Identify uncertainties as error bars in graphs.
- State random uncertainty as an uncertainty range (±) and represent it graphically as an "error bar".
- Determine the uncertainties in the gradient and intercepts of a straight-line graph.
- Distinguish between vector and scalar quantities, and give examples of each.
- Determine the sum or difference of two vectors by a graphical method.
- Resolve vectors into perpendicular components along chosen axes.

Benchmark 2: Understand and demonstrate the knowledge of Kinematics
OUTCOME: the student should be able to :

- Define *displacement*, *velocity*, *speed* and *acceleration*.
- Explain the difference between instantaneous and average values of speed, velocity and acceleration.
- Outline the conditions under which the equations for uniformly accelerated motion may be applied.
- Identify the acceleration of a body falling in a vacuum near the Earth's surface with the acceleration *g* of free fall.
- Solve problems involving the equations of uniformly accelerated motion.
- Describe the effects of air resistance on falling objects.
- Draw and analyse distance–time graphs, displacement–time graphs, velocity–time graphs and acceleration–time graphs.
- Calculate and interpret the gradients of displacement–time graphs and velocity–time graphs, and the areas under velocity–time graphs and acceleration–time graphs.
- Determine relative velocity in one and in two dimensions.

Benchmark 3: Understand and demonstrate the knowledge of forces and motion
OUTCOME: the student should be able to :

- Calculate the weight of a body using the expression $W = mg$.
- Identify the forces acting on an object and draw free-body diagrams representing the forces acting.
- Determine the resultant force in different situations.
- State Newton's first law of motion.
- Describe examples of Newton's first law.
- State the condition for translational equilibrium.
- Solve problems involving translational equilibrium.
- State Newton's second law of motion.
- Solve problems involving Newton's second law.
- Define *linear momentum* and *impulse*.
- Determine the impulse due to a time-varying force by interpreting a force–time graph.
- State the law of conservation of linear momentum.
- Solve problems involving momentum and impulse.
- State Newton's third law of motion.
- Discuss examples of Newton's third law.
- Draw a vector diagram to illustrate that the acceleration of a particle moving with constant speed in a circle is directed towards the centre of the circle.
- Apply the expression for centripetal acceleration.
- Identify the force producing circular motion in various situations.
- Solve problems involving circular motion.
- State Newton's universal law of gravitation.
- Define *gravitational field strength*.
- Determine the gravitational field due to one or more point masses.
- Derive an expression for gravitational field strength at the surface of a planet, assuming that all its mass is concentrated at its centre.
- Solve problems involving gravitational forces and fields.

Benchmark 4: Understand and demonstrate the knowledge of energy and energy transformation
OUTCOME: the student should be able to :

- Outline what is meant by work.
- Determine the work done by a non-constant force by interpreting a force–displacement graph.
- Solve problems involving the work done by a force.
- Outline what is meant by kinetic energy.
- Outline what is meant by change in gravitational potential energy.
- State the principle of conservation of energy.
- List different forms of energy and describe examples of the transformation of energy from one form to another.
- Distinguish between elastic and inelastic collisions.
- Define *power*.
- Define and apply the concept of *efficiency*.
- Solve problems involving momentum, work, energy and power.

Benchmark 5: Understand and demonstrate the knowledge of thermal physics
OUTCOME: the student should be able to :

- State that temperature determines the direction of thermal energy transfer between two objects.
- State the relation between the Kelvin and Celsius scales of temperature.
- State that the internal energy of a substance is the total potential energy and random kinetic energy of the molecules of the substance.
- Explain and distinguish between the macroscopic concepts of temperature, internal energy and thermal energy (heat).
- Define the *mole* and *molar mass*.
- Define the *Avogadro constant*.
- Define *specific heat capacity* and *thermal capacity*.
- Solve problems involving specific heat capacities and thermal capacities.
- Explain the physical differences between the solid, liquid and gaseous phases in terms of molecular structure and particle motion.
- Describe and explain the process of phase changes in terms of molecular behaviour.
- Explain in terms of molecular behaviour why temperature does not change during a phase change.
- Distinguish between evaporation and boiling.
- Define *specific latent heat*.
- Solve problems involving specific latent heats.
- Define *pressure*.
- State the assumptions of the kinetic model of an ideal gas.
- State that temperature is a measure of the average random kinetic energy of the molecules of an ideal gas.
- Explain the macroscopic behaviour of an ideal gas in terms of a molecular model.

Benchmark 6: Understand and demonstrate the knowledge of waves and waves properties
OUTCOME: the student should be able to :

- Describe examples of oscillations.
- Define the terms *displacement, amplitude, frequency, period* and *phase difference*.
- Define *simple harmonic motion* (*SHM*)
- Solve problems using the defining equation for SHM.
- Apply the equations for SHM.
- Solve problems, both graphically and by calculation, for acceleration, velocity and displacement during SHM.
- Describe the interchange between kinetic energy and potential energy during SHM.
- Solve problems, both graphically and by calculation, involving energy changes during SHM.
- State what is meant by damping.
- Describe graphically the variation with forced frequency of the amplitude of vibration of an object close to its natural frequency of

vibration.

- State what is meant by resonance.
- Describe examples of resonance where the effect is useful and where it should be avoided.
- Describe a wave pulse and a continuous progressive (travelling) wave.
- State that progressive (travelling) waves transfer energy.
- Describe and give examples of transverse and of longitudinal waves.
- Describe waves in two dimensions, including the concepts of wavefronts and of rays.
- Describe the terms crest, trough, compression and rarefaction.
- Define the terms *displacement*, *amplitude*, *frequency*, *period*, *wavelength*, *wave speed* and *intensity*.
- Draw and explain displacement–time graphs and displacement–position graphs for transverse and for longitudinal waves.
- Derive and apply the relationship between wave speed, wavelength and frequency.
- State that all electromagnetic waves travel with the same speed in free space, and recall the orders of magnitude of the wavelengths of the principal radiations in the electromagnetic spectrum.
- Describe the reflection and transmission of waves at a boundary between two media.
- State and apply Snell's law.
- Explain and discuss qualitatively the diffraction of waves at apertures and obstacles.
- Describe examples of diffraction.
- State the principle of superposition and explain what is meant by constructive interference and by destructive interference.
- State and apply the conditions for constructive and for destructive interference in terms of path difference and phase difference.
- Apply the principle of superposition to determine the resultant of two waves.
- Describe the nature of standing (stationary) waves.
- Explain the formation of one-dimensional standing waves.
- Discuss the modes of vibration of strings and air in open and in closed pipes.
- Compare standing waves and travelling waves.
- Solve problems involving standing waves.
- Describe what is meant by the Doppler effect.
- Explain the Doppler effect by reference to wavefront diagrams for moving-detector and moving-source situations.
- Apply the Doppler effect equations for sound.
- Solve problems on the Doppler effect for sound.
- Solve problems on the Doppler effect for electromagnetic waves
- Outline an example in which the Doppler effect is used to measure speed.
- Sketch the variation with angle of diffraction of the relative intensity of light diffracted at a single slit.
- Solve problems involving single-slit diffraction.

- Sketch the variation with angle of diffraction of the relative intensity of light emitted by two point sources that has been diffracted at a single slit.
- State the Rayleigh criterion for images of two sources to be just resolved.
- Describe the significance of resolution in the development of devices such as CDs and DVDs, the electron microscope and radio telescopes.
- Solve problems involving resolution.
- Describe what is meant by polarized light.
- Describe polarization by reflection.
- State and apply Brewster's law.
- Explain the terms polarizer and analyser.
- Calculate the intensity of a transmitted beam of polarized light using Malus' law.
- Describe what is meant by an optically active substance.
- Describe the use of polarization in the determination of the concentration of certain solutions.
- Outline qualitatively how polarization may be used in stress analysis.
- Outline qualitatively the action of liquid-crystal displays (LCDs).
- Solve problems involving the polarization of light.

Benchmark 7: Understand and demonstrate the knowledge of energy degradation & power generation

OUTCOME: the student should be able to :

- State that thermal energy may be completely converted to work in a single process, but that continuous conversion of this energy into work requires a cyclical process and the transfer of some energy from the system.
- Explain what is meant by degraded energy.
- Construct and analyse energy flow diagrams (Sankey diagrams) and identify where the energy is degraded.
- Outline the principal mechanisms involved in the production of electrical power.
- Identify different world energy sources.
- Outline and distinguish between renewable and non-renewable energy sources.
- Define the *energy density* of a fuel.
- Discuss how choice of fuel is influenced by its energy density.
- State the relative proportions of world use of the different energy sources that are available.
- Discuss the relative advantages and disadvantages of various energy sources.
- Outline the historical and geographical reasons for the widespread use of fossil fuels.
- Discuss the energy density of fossil fuels with respect to the demands of power stations.
- Discuss the relative advantages and disadvantages associated with the

transportation and storage of fossil fuels.

- Describe the environmental problems associated with the recovery of fossil fuels and their use in power stations.
- Describe how neutrons produced in a fission reaction may be used to initiate further fission reactions (chain reaction).
- Describe what is meant by fuel enrichment.
- Describe the main energy transformations that take place in a nuclear power station.
- Discuss the role of the moderator and the control rods in the production of controlled fission in a thermal fission reactor.
- Discuss the role of the heat exchanger in a fission reactor.
- Describe how neutron capture by a nucleus of uranium-238 (238U) results in the production of a nucleus of plutonium-239 (239Pu).
- Discuss safety issues and risks associated with the production of nuclear power.
- Outline the problems associated with producing nuclear power using nuclear fusion.
- Solve problems on the production of nuclear power.
- Distinguish between a photovoltaic cell and a solar heating panel.
- Outline reasons for seasonal and regional variations in the solar power incident per unit area of the Earth's surface.
- Solve problems involving specific applications of photovoltaic cells and solar heating panels.
- Distinguish between different hydroelectric schemes.
- Describe the main energy transformations that take place in hydroelectric schemes.
- Outline the basic features of a wind generator.
- Determine the power that may be delivered by a wind generator, assuming that the wind kinetic energy is completely converted into mechanical kinetic energy, and explain why this is impossible.
- Describe the principle of operation of an oscillating water column (OWC) ocean-wave energy converter.
- Determine the power per unit length of a wavefront, assuming a rectangular profile for the wave.
- Solve problems involving wave power.

Benchmark 8: Understand and demonstrate the knowledge of climate change
OUTCOME: the student should be able to :

- Calculate the intensity of the Sun's radiation incident on a planet.
- Define *albedo*.
- State factors that determine a planet's albedo.
- Describe the greenhouse effect.
- Identify the main greenhouse gases and their sources.
- Explain the molecular mechanisms by which greenhouse gases absorb infrared radiation.
- Analyse absorption graphs to compare the relative effects of different greenhouse gases.
- Outline the nature of black-body radiation.
- Draw and annotate a graph of the emission spectra of black bodies at

different temperatures.
- State the Stefan–Boltzmann law and apply it to compare emission rates from different surfaces.
- Apply the concept of emissivity to compare the emission rates from the different surfaces.
- Define *surface heat capacity C*s.
- Solve problems on the greenhouse effect and the heating of planets using a simple energy balance climate model.
- Describe some possible models of global warming.
- State what is meant by the enhanced greenhouse effect.
- Identify the increased combustion of fossil fuels as the likely major cause of the enhanced greenhouse effect.
- Describe the evidence that links global warming to increased levels of greenhouse gases.
- Outline some of the mechanisms that may increase the rate of global warming.
- Define *coefficient of volume expansion*.
- State that one possible effect of the enhanced greenhouse effect is a rise in mean sea-level.
- Outline possible reasons for a predicted rise in mean sea-level.
- Identify climate change as an outcome of the enhanced greenhouse effect.
- Solve problems related to the enhanced greenhouse effect.
- Identify some possible solutions to reduce the enhanced greenhouse effect.
- Discuss international efforts to reduce the enhanced greenhouse effect.

Standard 4: **PHYSICAL SCIENCE**: Students know and understand the Chemical interactions between, the changes in, and the properties of matter

Benchmark 1: Understand and demonstrate the knowledge of Quantitative chemistry
OUTCOME: the student should be able to:
- Apply the mole concept to substances.
- Determine the number of particles and the amount of substance (in moles).
- Define the terms *relative atomic mass* (*A*r) and *relative molecular mass* (*M*r).
- Calculate the mass of one mole of a species from its formula.
- Solve problems involving the relationship between the amounts of substance in moles, mass and molar mass.
- Distinguish between the terms *empirical formula* and *molecular formula.*
- Determine the empirical formula from the percentage composition or from other experimental data.
- Determine the molecular formula when given both the empirical formula and experimental data.
- Deduce chemical equations when all reactants and products are given.
- Identify the mole ratio of any two species in a chemical equation.
- Apply the state symbols (s), (l), (g) and (aq).
- Calculate theoretical yields from chemical equations.

- Determine the limiting reactant and the reactant in excess when quantities of reacting substances are given.
- Solve problems involving theoretical, experimental and percentage yield.
- Apply Avogadro's law to calculate reacting volumes of gases.
- Apply the concept of molar volume at standard temperature and pressure in calculations.
- Solve problems involving the relationship between temperature, pressure and volume for a fixed mass of an ideal gas.
- Solve problems using the ideal gas equation, $PV = nRT$
- Analyse graphs relating to the ideal gas equation.
- Distinguish between the terms *solute*, *solvent*, *solution* and *concentration* (g dm^{-3}, mol dm^{-3}).
- Solve problems involving concentration, amount of solute and volume of solution.

Benchmark 2: Understand and demonstrate the knowledge of Atomic structure
OUTCOME: the student should be able to:

- State the position of protons, neutrons and electrons in the atom.
- State the relative masses and relative charges of protons, neutrons and electrons.
- Define the terms *mass number* (*A*), *atomic number* (*Z*) and *isotopes of an element.*
- Deduce the symbol for an isotope given its mass number and atomic number.
- Calculate the number of protons, neutrons and electrons in atoms and ions from the mass number, atomic number and charge.
- Compare the properties of the isotopes of an element.
- Discuss the uses of radioisotopes
- Describe and explain the operation of a mass spectrometer.
- Describe how the mass spectrometer may be used to determine relative atomic mass using the ^{12}C scale.
- Calculate non-integer relative atomic masses and abundance of isotopes from given data.
- Describe the electromagnetic spectrum.
- Distinguish between a *continuous spectrum* and a *line spectrum*.
- Explain how the lines in the emission spectrum of hydrogen are related to electron energy levels.
- Deduce the electron arrangement for atoms and ions up to $Z = 20$.

Benchmark 3: Understand and demonstrate the knowledge of Periodicity
OUTCOME: the student should be able to :

- Describe the arrangement of elements in the periodic table in order of increasing atomic number.
- Distinguish between the terms *group* and *period.*
- Apply the relationship between the electron arrangement of elements & their position in the periodic table.
- Apply the relationship between the number of electrons in the highest occupied energy level for an element and its position in the periodic table.
- Define the terms *first ionization energy* and *electronegativity*.
- Describe and explain the trends in atomic radii, ionic radii, first ionization energies, electronegativities and melting points for the alkali metals (Li → Cs) and the halogens (F → I).

- Describe and explain the trends in atomic radii, ionic radii, first ionization energies and electronegativities for elements across period 3.
- Compare the relative electronegativity values of two or more elements based on their positions in the periodic table.
- Discuss the similarities and differences in the chemical properties of elements in the same group.
- Discuss the changes in nature, from ionic to covalent and from basic to acidic, of the oxides across period 3.

Benchmark 4: Understand and demonstrate the knowledge of Bonding
OUTCOME: the student should be able to :

- Describe the ionic bond as the electrostatic attraction between oppositely charged ions.
- Describe how ions can be formed as a result of electron transfer.
- Deduce which ions will be formed when elements in groups 1, 2 and 3 lose electrons.
- Deduce which ions will be formed when elements in groups 5, 6 and 7 gain electrons.
- State those transition elements can form more than one ion.
- Predict whether a compound of two elements would be ionic from the position of the elements in the periodic table or from their electronegativity values.
- State the formula of common polyatomic ions formed by nonmetals in periods 2 and 3.
- Describe the lattice structure of ionic compounds.
- Describe the covalent bond as the electrostatic attraction between a pair of electrons and positively charged nuclei.
- Deduce the Lewis (electron dot) structures of molecules and ions for up to four electron pairs on each atom.
- State and explain the relationship between the number of bonds, bond length and bond strength.
- Predict whether a compound of two elements would be covalent from the position of the elements in the periodic table or from their electronegativity values.
- Predict the relative polarity of bonds from electronegativity values
- Predict the shape and bond angles for species with four, three and two negative charge centres on the central atom using the valence shell electron pair repulsion theory (VSEPR).
- Predict whether or not a molecule is polar from its molecular shape and bond polarities.
- Describe the structure of and bonding in silicon and silicon dioxide.
- Describe the types of intermolecular forces (attractions between molecules that have temporary dipoles, permanent dipoles or hydrogen bonding) and explain how they arise from the structural features of molecules.
- Describe and explain how intermolecular forces affect the boiling points of substances.
- Describe the metallic bond as the electrostatic attraction between a lattice of positive ions and delocalized electrons.
- Explain the electrical conductivity and malleability of metals.
- Compare and explain the properties of substances resulting from different types of bonding.

Benchmark 5: Understand and demonstrate the knowledge of Energetics
OUTCOME: the student should be able to :

- Define the terms *exothermic reaction*, *endothermic reaction* and *standard enthalpy change of reaction* ($\Delta H^{Ö}$).
- State that combustion and neutralization are exothermic processes.
- Apply the relationship between temperature change, enthalpy change and the classification of a reaction as endothermic or exothermic.
- Deduce, from an enthalpy level diagram, the relative stabilities of reactants and products, and the sign of the enthalpy change for the reaction.
- Calculate the heat energy change when the temperature of a pure substance is changed.
- Design suitable experimental procedures for measuring the heat energy changes of reactions.
- Calculate the enthalpy change for a reaction using experimental data on temperature changes, quantities of reactants and mass of water.
- Evaluate the results of experiments to determine enthalpy changes.
- Determine the enthalpy change of a reaction that is the sum of two or three reactions with known enthalpy changes.
- Define the term *average bond enthalpy.*
- Explain, in terms of average bond enthalpies, why some reactions are exothermic and others are endothermic.

Benchmark 6: Understand and demonstrate the knowledge of Kinetics
OUTCOME: the student should be able to :

- Define the term *rate of reaction*.
- Describe suitable experimental procedures for measuring rates of reactions.
- Analyse data from rate experiments.
- Describe the kinetic theory in terms of the movement of particles whose average energy is proportional to temperature in kelvins.
- Define the term *activation energy, E*a.
- Describe the collision theory.
- Predict and explain, using the collision theory, the qualitative effects of particle size, temperature, concentration and pressure on the rate of a reaction.
- Sketch and explain qualitatively the Maxwell–Boltzmann energy distribution curve for a fixed amount of gas at different temperatures and its consequences for changes in reaction rate.
- Describe the effect of a catalyst on a chemical reaction.
- Sketch and explain Maxwell– Boltzmann curves for reactions with and without catalysts.

Benchmark 7: Understand and demonstrate the knowledge of Equilibrium
OUTCOME: the student should be able to :

- Outline the characteristics of chemical and physical systems in a state of equilibrium.
- Deduce the equilibrium constant expression (*K*c) from the equation for a homogeneous reaction.

- Deduce the extent of a reaction from the magnitude of the equilibrium constant.
- Apply Le Chatelier's principle to predict the qualitative effects of changes of temperature, pressure and concentration on the position of equilibrium and on the value of the equilibrium constant.
- State and explain the effect of a catalyst on an equilibrium reaction.
- Apply the concepts of kinetics and equilibrium to industrial processes.

Benchmark 8: Understand and demonstrate the knowledge of Acids and Bases
OUTCOME: the student should be able to :

- Define *acids* and *bases* according to the Brønsted–Lowry and Lewis theories.
- Deduce whether or not a species could act as a Brønsted–Lowry and/or a Lewis acid or base.
- Deduce the formula of the conjugate acid (or base) of any Brønsted–Lowry base (or acid).
- Outline the characteristic properties of acids and bases in aqueous solution.
- Distinguish between *strong* and *weak* acids and bases in terms of the extent of dissociation, reaction with water and electrical conductivity.
- State whether a given acid or base is strong or weak.
- Distinguish between *strong* and *weak* acids and bases, and determine the relative strengths of acids and bases, using experimental data.
- Distinguish between aqueous solutions that are *acidic*, *neutral* or *alkaline* using the pH scale.
- Identify which of two or more aqueous solutions is more acidic or alkaline using pH values.
- State that each change of one pH unit represents a 10-fold change in the hydrogen ion concentration [H+(aq)].
- Deduce changes in [H+(aq)] when the pH of a solution changes by more than one pH unit.

Standard 5: EARTH and SPACE SCIENCE: Students will understand the structures and changes of the earth and universe.

Benchmark 1: Understand and demonstrate the knowledge of Systems and models
OUTCOME: the student should be able to:

- Outline the concept and characteristics of systems.
- Apply the systems concept on a range of scales.
- Define the terms *open system*, *closed system* and *isolated system*.
- Describe how the first and second laws of thermodynamics are relevant to environmental systems.
- Explain the nature of equilibria.
- Define and explain the principles of *positive feedback* and *negative feedback*.
- Describe transfer and transformation processes.
- Distinguish between flows (inputs and outputs) and storages (stock) in relation to systems.
- Construct and analyse quantitative models involving flows and storages in a system.

- Evaluate the strengths and limitations of models.

Benchmark 2: Understand and demonstrate the knowledge of the ecosystem
OUTCOME: the student should be able to:

- Distinguish between biotic and abiotic (physical) components of an ecosystem.
- Define the term *trophic level*.
- Identify and explain trophic levels in food chains and food webs selected from the local environment.
- Explain the principles of pyramids of numbers, pyramids of biomass, and pyramids of productivity, and construct such pyramids from given data.
- Discuss how the pyramid structure affects the functioning of an ecosystem.
- Define the terms *species*, *population*, *habitat*, *niche*, *community* and *ecosystem* with reference to local examples.
- Describe and explain population interactions using examples of named species.
- List the significant abiotic (physical) factors of an ecosystem.
- Describe and evaluate methods for measuring at least three abiotic (physical) factors within an ecosystem.
- Construct simple keys and use published keys for the identification of organisms.
- Describe and evaluate methods for estimating abundance of organisms.
- Describe and evaluate methods for estimating the biomass of trophic levels in a community.
- Define the term *diversity*.
- Apply Simpson's diversity index and outline its significance.
- Define the term *biome*.
- Explain the distribution, structure and relative productivity of tropical rainforests, deserts, tundra and any other biome.
- Explain the role of producers, consumers and decomposers in the ecosystem.
- Describe photosynthesis and respiration in terms of inputs, outputs and energy transformations.
- Describe and explain the transfer and transformation of energy as it flows through an ecosystem.
- Describe and explain the transfer and transformation of materials as they cycle within an ecosystem.
- Define the terms *gross productivity*, *net productivity*, *primary productivity* and *secondary productivity*.
- Define the terms and calculate the values of both *gross primary productivity* (GPP) and *net primary productivity* (NPP) from given data.
- Define the terms and calculate the values of both *gross secondary productivity* (GSP) and *net secondary productivity* (NSP) from given data.
- Explain the concepts of limiting factors and carrying capacity in the context of population growth.
- Describe and explain S and J population curves.
- Describe the role of density‑dependent and density‑independent factors, and internal and external factors, in the regulation of populations.
- Describe the principles associated with survivorship curves including, *K*‑ and *r*‑strategists.
- Describe the concept and processes of succession in a named habitat.

- Explain the changes in energy flow, gross and net productivity, diversity and mineral cycling in different stages of succession.
- Describe factors affecting the nature of climax communities.
- Describe and evaluate methods for measuring changes in abiotic and biotic components of an ecosystem along an environmental gradient.
- Describe and evaluate methods for measuring changes in abiotic and biotic components of an ecosystem due to a specific human activity.
- Describe and evaluate the use of environmental impact assessments (EIAs).

Benchmark 3: Understand and demonstrate the knowledge of Human population, carrying capacity & resource use

OUTCOME: the student should be able to :

- Describe the nature and explain the implications of exponential growth in human populations.
- Calculate and explain, from given data, the values of crude birth rate, crude death rate, fertility, doubling time and natural increase rate.
- Analyse age/sex pyramids and diagrams showing demographic transition models.
- Discuss the use of models in predicting the growth of human populations.
- Explain the concept of resources in terms of natural income.
- Define the terms *renewable*, *replenishable* and *non‑renewable natural capital*.
- Explain the dynamic nature of the concept of a resource.
- Discuss the view that the environment can have its own intrinsic value.
- Explain the concept of sustainability in terms of natural capital and natural income.
- Discuss the concept of sustainable development.
- Calculate and explain sustainable yield from given data.
- Outline the range of energy resources available to society.
- Evaluate the advantages and disadvantages of two contrasting energy sources.
- Discuss the factors that affect the choice of energy sources adopted by different societies.
- Outline how soil systems integrate aspects of living systems.
- Compare and contrast the structure and properties of sand, clay and loam soils, including their effect on primary productivity.
- Outline the processes and consequences of soil degradation.
- Outline soil conservation measures.
- Evaluate soil management strategies in a named commercial farming system and in a named subsistence farming system.
- Outline the issues involved in the imbalance in global food supply.
- Compare and contrast the efficiency of terrestrial and aquatic food production systems.
- Compare and contrast the inputs and outputs of materials and energy (energy efficiency), the system characteristics, and evaluate the relative environmental impacts for two named food production systems.
- Discuss the links that exist between social systems and food production systems.
- Describe the Earth's water budget.
- Describe and evaluate the sustainability of freshwater resource usage with reference to a case study.
- Explain the difficulties in applying the concept of carrying capacity to local human populations.

- Explain how absolute reductions in energy and material use, reuse and recycling can affect human carrying capacity.
- Explain the concept of an ecological footprint as a model for assessing the demands that human populations make on their environment.
- Calculate from appropriate data the ecological footprint of a given population, stating the approximations and assumptions involved.
- Describe and explain the differences between the ecological footprints of two human populations, one from an LEDC and one from an MEDC.
- Discuss how national and international development policies and cultural influences can affect human population dynamics and growth.
- Describe and explain the relationship between population, resource consumption and technological development, and their influence on carrying capacity and material economic growth.

Grade 12

Standard 1: **SCIENTIFIC INQUIRY**: Students understand the nature of scientific knowledge and enterprise, and apply the process of scientific inquiry.

Benchmark1: Identify questions and concepts that guide science investigations
OUTCOME: the student should be able to :

- formulate a focused problem/research question
- identify the relevant variables.

Benchmark 2: Design and conduct scientific investigations
OUTCOME: the student should be able to :

- design a method for the effective control of the variables.
- develop a method that allows for the collection of sufficient relevant data.
- follow instructions accurately, adapting to new circumstances (seeking assistance when required).
- use of a range of techniques and equipment.
- pay attention to safety issues.
- collaborate and communicate in a group situation and integrate the views of others.

Benchmark 3: Collect and process the data in a scientific investigation and communicate the conclusions
OUTCOME: the student should be able to :

- record appropriate quantitative and associated qualitative raw data, including units and uncertainties where relevant.
- process the quantitative raw data correctly.
- present processed data appropriately and, where relevant, includes errors and uncertainties.
- state a conclusion, with justification, based on a reasonable interpretation of the data.
- evaluate weaknesses and limitations.
- suggest realistic improvements in respect of identified weaknesses and limitations.

Benchmark 4: understand the interdependence of science and society
OUTCOME: the student should be able to :

- raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology
- develop an appreciation of the possibilities and limitations associated with science and scientists
- encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

Benchmark 5: Communicate and defend a scientific argument
OUTCOME: the student should be able to :

- uses scientific language correctly.
- communicate ideas and findings in science.
- acknowledge the work of others and the sources of information used by documenting them using a recognized referencing system.

Learning outcomes and/or Benchmarks which end with a star (✶) are for higher level only.

Standard 2: **LIFE SCIENCE** – Students know and understand the characteristics, structure, and function of organisms and their systems; the processes of life, and how organisms interact with each other and their environment.

Benchmark 1: Understand and demonstrate the knowledge of Ecology and evolution
OUTCOME: the student should be able to:

- Define species, habitat, population, community, ecosystem and ecology.
- Distinguish between autotroph and heterotroph.
- Distinguish between consumers, detritivores and saprotrophs.
- Describe what is meant by a food chain, giving three examples, each with at least three linkages.
- Describe what is meant by a food web.
- Define trophic level.
- Deduce the trophic level of organisms in a food chain and a food web.
- Construct a food web containing up to 10 organisms, using appropriate information.
- State that light is the initial energy source for almost all communities.
- Explain the energy flow in a food chain.
- State that energy transformations are never 100% efficient.
- Explain reasons for the shape of pyramids of energy.
- Explain that energy enters and leaves ecosystems, but nutrients must be recycled.
- State that saprotrophic bacteria and fungi (decomposers) recycle nutrients.
- Draw and label a diagram of the carbon cycle to show the processes involved.
- Analyse the changes in concentration of atmospheric carbon dioxide using historical records.
- Explain the relationship between rises in concentrations of atmospheric carbon dioxide, methane and oxides of nitrogen and the enhanced greenhouse effect.
- Outline the precautionary principle.
- Evaluate the precautionary principle as a justification for strong action in response to the threats posed by the enhanced greenhouse effect.
- Outline the consequences of a global temperature rise on arctic ecosystems.
- Outline how population size is affected by natality, immigration, mortality and emigration.
- Draw and label a graph showing a sigmoid (S-shaped) population growth curve.
- Explain the reasons for the exponential growth phase, the plateau phase and the transitional phase between these two phases.
- List three factors that set limits to population increase.
- Define *evolution*.
- Outline the evidence for evolution provided by the fossil record, selective breeding of domesticated animals and homologous structures.
- State that populations tend to produce more offspring than the environment can support.
- Explain that the consequence of the potential overproduction of offspring is a struggle for survival.
- State that the members of a species show variation.

- Explain how sexual reproduction promotes variation in a species.
- Explain how natural selection leads to evolution.
- Outline the binomial system of nomenclature.
- Distinguish between the following phyla of plants, using simple external recognition features: bryophyta, filicinophyta, coniferophyta and angiospermophyta.
- Distinguish between the following phyla of animals, using simple external recognition features: porifera, cnidaria, platyhelminthes, annelida, mollusca and arthropoda.
- Apply and design a key for a group of up to eight organisms.
- *Benchmark 2: Understand and demonstrate the knowledge of microbes and biotechnology*
- *Learning Outcomes: the student should be able to:*
- Outline the classification of living organisms into three domains.
- Explain the reasons for the reclassification of living organisms into three domains.
- Distinguish between the characteristics of the three domains.
- Outline the wide diversity of habitat in the Archae, as exemplified by methanogens, thermophiles and halophiles.
- Outline the diversity of Eubacteria, including shape and cell wall structure.
- State, with one example, that some bacteria form aggregates that show characteristics not seen in individual bacteria.
- Compare the structure of the cell walls of Gram-positive and Gram-negative Eubacteria.
- Outline the diversity of structure in viruses including: naked capsid versus enveloped capsid; DNA versus RNA; and single stranded versus double stranded DNA or RNA.
- Outline the diversity of microscopic eukaryotes, as illustrated by Saccharomyces, Amoeba, Plasmodium, Paramecium, Euglena and Chlorella.
- List the roles of microbes in ecosystems, including producers, nitrogen fixers and decomposers.
- Draw and label a diagram of the nitrogen cycle.
- State the roles of Rhizobium, Azotobacter, Nitrosomonas, Nitrobacter and Pseudomonas denitrificans in the nitrogen cycle.
- Outline the conditions that favour denitrification and nitrification.
- Explain the consequences of releasing raw sewage and nitrate fertilizer into rivers.
- Outline the role of saprotrophic bacteria in the treatment of sewage using trickling filter beds and reed bed systems.
- State that biomass can be used as raw material for the production of fuels such as methane and ethanol.
- Explain the principles involved in the generation of methane from biomass, including the conditions needed, organisms involved and the basic chemical reactions that occur.
- State that reverse transcriptase catalyses the production of DNA from RNA.
- Explain how reverse transcriptase is used in molecular biology.
- Distinguish between somatic and germ line therapy.
- Outline the use of viral vectors in gene therapy.
- Discuss the risks of gene therapy.
- Explain the use of Saccharomyces in the production of beer, wine and bread.
- Outline the production of soy sauce using Aspergillus oryzae.

- Explain the use of acids and high salt or sugar concentrations in food preservation.
- Outline the symptoms, method of transmission and treatment of one named example of food poisoning.
- Define the terms photoautotroph, photoheterotroph, chemoautotroph & chemoheterotroph. ✶
- State one example of a photoautotroph, photoheterotroph, chemoautotroph and chemoheterotroph. ✶
- Compare photoautotrophs with photoheterotrophs in terms of energy sources and carbon sources. ✶
- Compare chemoautotrophs with chemoheterotrophs in terms of energy sources and carbon sources. ✶
- Draw and label a diagram of a filamentous cyanobacterium.
- Explain the use of bacteria in the bioremediation of soil and water. ✶
- List six methods by which pathogens are transmitted and gain entry to the body. ✶
- Distinguish between intracellular and extracellular bacterial infection using Chlamydia and Streptococcus as examples. ✶
- Distinguish between endotoxins and exotoxins. ✶
- Evaluate methods of controlling microbial growth by irradiation, pasteurization, antiseptics & disinfectants. ✶
- Outline the mechanism of the action of antibiotics, including inhibition of synthesis of cell walls, proteins and nucleic acids. ✶
- Outline the lytic life cycle of the influenza virus. ✶
- Define epidemiology. ✶
- Discuss the origin and epidemiology of one example of a pandemic. ✶
- Describe the cause, transmission and effects of malaria, as an example of disease caused by a protozoan. ✶
- Discuss the prion hypothesis for the cause of spongiform encephalopathies. ✶

Benchmark 3: Understand and demonstrate the knowledge of ecology and conservation.
OUTCOME: the student should be able to:

- Outline the factors that affect the distribution of plant species, including temperature, water, light, soil pH, salinity and mineral nutrients.
- Explain the factors that affect the distribution of animal species, including temperature, water, breeding sites, food supply and territory.
- Describe one method of random sampling, based on quadrat methods, that is used to compare the population size of two plant or two animal species.
- Outline the use of a transect to correlate the distribution of plant or animal species with an abiotic variable.
- Explain what is meant by the niche concept, including an organism's spatial habitat, its feeding activities and its interactions with other species.
- Outline the following interactions between species, giving two examples of each: competition, herbivory, predation, parasitism and mutualism.
- Explain the principle of competitive exclusion.
- Distinguish between fundamental and realized niches.
- Define biomass.
- Describe one method for the measurement of biomass of different trophic levels in an ecosystem.
- Define gross production, net production and biomass.

- Calculate values for gross production and net production using the equation: gross production – respiration = net production.
- Discuss the difficulties of classifying organisms into trophic levels.
- Explain the small biomass and low numbers of organisms in higher trophic levels.
- Construct a pyramid of energy, given appropriate information.
- Distinguish between primary and secondary succession, using an example of each.
- Outline the changes in species diversity and production during primary succession.
- Explain the effects of living organisms on the abiotic environment, with reference to the changes occurring during primary succession.
- Distinguish between biome and biosphere.
- Explain how rainfall and temperature affect the distribution of biomes.
- Outline the characteristics of six major biomes.
- Calculate the Simpson diversity index for two local communities.
- Analyse the biodiversity of the two local communities using the Simpson index.
- Discuss reasons for the conservation of biodiversity using rainforests as an example.
- List three examples of the introduction of alien species that have had significant impacts on ecosystems.
- Discuss the impacts of alien species on ecosystems.
- Outline one example of biological control of invasive species.
- Define biomagnification.
- Explain the cause and consequences of biomagnification, using a named example.
- Outline the effects of ultraviolet (UV) radiation on living tissues and biological productivity.
- Outline the effect of chlorofluorocarbons (CFCs) on the ozone layer.
- State that ozone in the stratosphere absorbs UV radiation.
- Explain the use of biotic indices and indicator species in monitoring environmental change. ✶
- Outline the factors that contributed to the extinction of one named animal species. ✶
- Outline the biogeographical features of nature reserves that promote the conservation of diversity. ✶
- Discuss the role of active management techniques in conservation. ✶
- Discuss the advantages of in situ conservation of endangered species (terrestrial and aquatic nature reserves). ✶
- Outline the use of ex situ conservation measures, including captive breeding of animals, botanic gardens and seed banks. ✶
- Distinguish between r-strategies and K-strategies. ✶
- Discuss the environmental conditions that favour either r-strategies or K-strategies. ✶
- Describe one technique used to estimate the population size of an animal species based on a capture–mark–release–recapture method. ✶
- Describe the methods used to estimate the size of commercial fish stocks. ✶
- Outline the concept of maximum sustainable yield in the conservation of fish stocks. ✶
- Discuss international measures that would promote the conservation of fish. ✶

Benchmark 4: Understand and demonstrate the knowledge of Nucleic acids and proteins ✶
OUTCOME: the student should be able to:

- Describe the structure of DNA, including the antiparallel strands, 3'→5' linkages and hydrogen bonding between purines and pyrimidines.
- Outline the structure of nucleosomes.
- State that nucleosomes help to supercoil chromosomes and help to regulate transcription.
- Distinguish between unique or single-copy genes and highly repetitive sequences in nuclear DNA.
- State that eukaryotic genes can contain exons and introns.
- State that DNA replication occurs in a 5' → 3' direction.
- Explain the process of DNA replication in prokaryotes, including the role of enzymes (helicase, DNA polymerase, RNA primase and DNA ligase), Okazaki fragments and deoxynucleoside triphosphates.
- State that DNA replication is initiated at many points in eukaryotic chromosomes.
- State that transcription is carried out in a 5' → 3' direction.
- Distinguish between the sense and antisense strands of DNA.
- Explain the process of transcription in prokaryotes, including the role of the promoter region, RNA polymerase, nucleoside triphosphates and the terminator.
- State that eukaryotic RNA needs the removal of introns to form mature mRNA.
- Explain that each tRNA molecule is recognized by a tRNA-activating enzyme that binds a specific amino acid to the tRNA, using ATP for energy.
- Outline the structure of ribosomes, including protein and RNA composition, large and small subunits, three tRNA binding sites and mRNA binding sites.
- State that translation consists of initiation, elongation, translocation and termination.
- State that translation occurs in a 5' → 3' direction.
- Draw and label a diagram showing the structure of a peptide bond between two amino acids.
- Explain the process of translation, including ribosomes, polysomes, start codons and stop codons.
- State that free ribosomes synthesize proteins for use primarily within the cell, and that bound ribosomes synthesize proteins primarily for secretion or for lysosomes.
- Explain the four levels of protein structure, indicating the significance of each level.
- Outline the difference between fibrous and globular proteins, with reference to two examples of each protein type.
- Explain the significance of polar and non-polar amino acids.
- State four functions of proteins, giving a named example of each.
- State that metabolic pathways consist of chains and cycles of enzyme-catalysed reactions.
- Describe the induced-fit model.
- Explain that enzymes lower the activation energy of the chemical reactions that they catalyse.
- Explain the difference between competitive and non-competitive inhibition, with reference to one example of each.
- Explain the control of metabolic pathways by end-product inhibition, including the role of allosteric sites.

Benchmark 5: Understand and demonstrate the knowledge of Cell respiration and photosynthesis ✶
OUTCOME: the student should be able to:

- State that oxidation involves the loss of electrons from an element, whereas reduction involves a gain of electrons; and that oxidation frequently involves gaining oxygen or losing hydrogen, whereas reduction frequently involves losing oxygen or gaining hydrogen.
- Outline the process of glycolysis, including phosphorylation, lysis, oxidation & ATP formation.
- Draw and label a diagram showing the structure of a mitochondrion as seen in electron micrographs.
- Explain aerobic respiration, including the link reaction, the Krebs cycle, the role of $NADH + H^+$, the electron transport chain and the role of oxygen.
- Explain oxidative phosphorylation in terms of chemiosmosis.
- Explain the relationship between the structure of the mitochondrion and its function.
- Draw and label a diagram showing the structure of a chloroplast as seen in electron micrographs.
- State that photosynthesis consists of light-dependent and light-independent reactions.
- Explain the light-dependent reactions.
- Explain photophosphorylation in terms of chemiosmosis.
- Explain the light-independent reactions.
- Explain the relationship between the structure of the chloroplast and its function.
- Explain the relationship between the action spectrum and the absorption spectrum of photosynthetic pigments in green plants.
- Explain the concept of limiting factors in photosynthesis, with reference to light intensity, temperature and concentration of carbon dioxide.

Benchmark 6: Understand and demonstrate the knowledge of plant science ✶
OUTCOME: the student should be able to:

- Draw and label plan diagrams to show the distribution of tissues in the stem and leaf of a dicotyledonous plant.
- Outline three differences between the structures of dicotyledonous and monocotyledonous plants.
- Explain the relationship between the distribution of tissues in the leaf and the functions of these tissues.
- Identify modifications of roots, stems and leaves for different functions: bulbs, stem tubers, storage roots and tendrils.
- State that dicotyledonous plants have apical and lateral meristems.
- Compare growth due to apical and lateral meristems in dicotyledonous plants.
- Explain the role of auxin in phototropism as an example of the control of plant growth.
- Outline how the root system provides a large surface area for mineral ion and water uptake by means of branching and root hairs.
- List ways in which mineral ions in the soil move to the root.

- Explain the process of mineral ion absorption from the soil into roots by active transport.
- State that terrestrial plants support themselves by means of thickened cellulose, cell turgor and lignified xylem.
- Define transpiration.
- Explain how water is carried by the transpiration stream, including the structure of xylem vessels, transpiration pull, cohesion, adhesion and evaporation.
- State that guard cells can regulate transpiration by opening and closing stomata.
- State that the plant hormone abscisic acid causes the closing of stomata.
- Explain how the abiotic factors light, temperature, wind and humidity, affect the rate of transpiration in a typical terrestrial plant.
- Outline four adaptations of xerophytes that help to reduce transpiration.
- Outline the role of phloem in active translocation of sugars (sucrose) and amino acids from source (photosynthetic tissue and storage organs) to sink (fruits, seeds, roots).
- Draw and label a diagram showing the structure of a dicotyledonous animal-pollinated flower.
- Distinguish between pollination, fertilization and seed dispersal.
- Draw and label a diagram showing the external and internal structure of a named dicotyledonous seed.
- Explain the conditions needed for the germination of a typical seed.
- Outline the metabolic processes during germination of a starchy seed.
- Explain how flowering is controlled in long-day and short-day plants, including the role of phytochrome.

Benchmark 7: Understand and demonstrate the knowledge of genetics ✶
OUTCOME: the student should be able to:

- Describe the behaviour of the chromosomes in the phases of meiosis.
- Outline the formation of chiasmata in the process of crossing over.
- Explain how meiosis results in an effectively infinite genetic variety in gametes through crossing over in prophase I and random orientation in metaphase I.
- State Mendel's law of independent assortment.
- Explain the relationship between Mendel's law of independent assortment and meiosis.
- Calculate and predict the genotypic and phenotypic ratio of offspring of dihybrid crosses involving unlinked autosomal genes.
- Distinguish between autosomes and sex chromosomes.
- Explain how crossing over between non-sister chromatids of a homologous pair in prophase I can result in an exchange of alleles.
- Define linkage group.
- Explain an example of a cross between two linked genes.
- Identify which of the offspring are recombinants in a dihybrid cross involving linked genes.
- Define polygenic inheritance.
- Explain that polygenic inheritance can contribute to continuous variation using two examples, one of which must be human skin colour.

Benchmark 8: Understand and demonstrate the knowledge of genetics ✶
OUTCOME: the student should be able to:

- Describe the process of blood clotting.
- Outline the principle of challenge and response, clonal selection and memory cells as the basis of immunity.
- Define active and passive immunity.
- Explain antibody production.
- Describe the production of monoclonal antibodies and their use in diagnosis and in treatment.
- Explain the principle of vaccination.
- Discuss the benefits and dangers of vaccination.
- State the roles of bones, ligaments, muscles, tendons and nerves in human movement.
- Label a diagram of the human elbow joint, including cartilage, synovial fluid, joint capsule, named bones and antagonistic muscles (biceps and triceps).
- Outline the functions of the structures in the human elbow joint
- Compare the movements of the hip joint and the knee joint.
- Describe the structure of striated muscle fibres, including the myofibrils with light and dark bands, mitochondria, the sarcoplasmic reticulum, nuclei and the sarcolemma.
- Draw and label a diagram to show the structure of a sarcomere, including Z lines, actin filaments, myosin filaments with heads, and the resultant light and dark bands.
- Explain how skeletal muscle contracts, including the release of calcium ions from the sarcoplasmic reticulum, the formation of cross-bridges, the sliding of actin and myosin filaments, and the use of ATP to break cross-bridges and re-set myosin heads.
- Analyse electron micrographs to find the state of contraction of muscle fibres.
- Define excretion.
- Draw and label a diagram of the kidney.
- Annotate a diagram of a glomerulus and associated nephron to show the function of each part.
- Explain the process of ultrafiltration, including blood pressure, fenestrated blood capillaries and basement membrane.
- Define osmoregulation.
- Explain the reabsorption of glucose, water and salts in the proximal convoluted tubule, including the roles of microvilli, osmosis and active transport.
- Explain the roles of the loop of Henle, medulla, collecting duct and ADH (vasopressin) in maintaining the water balance of the blood.
- Explain the differences in the concentration of proteins, glucose and urea between blood plasma, glomerular filtrate and urine.
- Explain the presence of glucose in the urine of untreated diabetic patients.
- Annotate a light micrograph of testis tissue to show the location and function of interstitial cells (Leydig cells), germinal epithelium cells, developing spermatozoa and Sertoli cells.
- Outline the processes involved in spermatogenesis within the testis, including mitosis, cell growth, the two divisions of meiosis and cell differentiation.
- State the role of LH, testosterone and FSH in spermatogenesis.

- Annotate a diagram of the ovary to show the location and function of germinal epithelium, primary follicles, mature follicle and secondary oocyte.
- Outline the processes involved in oogenesis within the ovary, including mitosis, cell growth, the two divisions of meiosis, the unequal division of cytoplasm and the degeneration of polar body.
- Draw and label a diagram of a mature sperm and egg.
- Outline the role of the epididymis, seminal vesicle and prostate gland in the production of semen.
- Compare the processes of spermatogenesis and oogenesis, including the number of gametes and the timing of the formation and release of gametes.
- Describe the process of fertilization, including the acrosome reaction, penetration of the egg membrane by a sperm and the cortical reaction.
- Outline the role of HCG in early pregnancy.
- Outline early embryo development up to the implantation of the blastocyst.
- Explain how the structure and functions of the placenta, including its hormonal role in secretion of estrogen and progesterone, maintain pregnancy.
- State that the fetus is supported and protected by the amniotic sac and amniotic fluid.
- State that materials are exchanged between the maternal and fetal blood in the placenta.
- Outline the process of birth and its hormonal control, including the changes in progesterone and oxytocin levels and positive feedback.

Standard 3: **PHYSICAL SCIENCE**: Students demonstrate an understanding of the composition of physical systems and the concepts and principles that describe and predict physical interactions and events in the natural world

Benchmark 1: Understand and demonstrate the knowledge of Kinematics
OUTCOME: the student should be able to :

- State the independence of the vertical and the horizontal components of velocity for a projectile in a uniform field.★
- Describe and sketch the trajectory of projectile motion as parabolic in the absence of air resistance. ★
- Describe qualitatively the effect of air resistance on the trajectory of a projectile. ★
- Solve problems on projectile motion. ★

Benchmark 2: Understand and demonstrate the knowledge of forces and motion
OUTCOME: the student should be able to :

- Define *gravitational potential* and *gravitational potential energy*. ★
- State and apply the expression for gravitational potential due to a point mass. ★
- State and apply the formula relating gravitational field strength to gravitational potential gradient. ★
- Determine the potential due to one or more point masses. ★
- Describe and sketch the pattern of equipotential surfaces due to one and two point masses. ★
- State the relation between equipotential surfaces and gravitational field lines. ★
- Explain the concept of escape speed from a planet. ★

- Derive an expression for the escape speed of an object from the surface of a planet. ★
- Solve problems involving gravitational potential energy and gravitational potential. ★
- State that gravitation provides the centripetal force for circular orbital motion.
- Derive Kepler's third law. ★
- Discuss the concept of "weightlessness" in orbital motion, in free fall and in deep space. ★
- Solve problems involving orbital motion. ★

Benchmark 3: Understand and demonstrate the knowledge of energy and energy transformation
OUTCOME: the student should be able to :

- Define *gravitational potential* and *gravitational potential energy*. ★
- State and apply the expression for gravitational potential due to a point mass. ★
- State and apply the formula relating gravitational field strength to gravitational potential gradient. ★
- Determine the potential due to one or more point masses. ★
- Describe and sketch the pattern of equipotential surfaces due to one and two point masses. ★
- State the relation between equipotential surfaces and gravitational field lines. ★
- Explain the concept of escape speed from a planet. ★
- Derive an expression for the escape speed of an object from the surface of a planet. ★
- Solve problems involving gravitational potential energy and gravitational potential. ★
- Derive expressions for the kinetic energy, potential energy and total energy of an orbiting satellite. ★
- Sketch graphs showing the variation with orbital radius of the kinetic energy, gravitational potential energy and total energy of a satellite. ★

Benchmark 4: Understand and demonstrate the knowledge of thermal physics
OUTCOME: the student should be able to :

- State the equation of state for an ideal gas. ★
- Describe the difference between an ideal gas and a real gas. ★
- Describe the concept of the absolute zero of temperature and the Kelvin scale of temperature. ★
- Solve problems using the equation of state of an ideal gas. ★
- Deduce an expression for the work involved in a volume change of a gas at constant pressure. ★
- State the first law of thermodynamics. ★
- Identify the first law of thermodynamics as a statement of the principle of energy conservation. ★
- Describe the isochoric (isovolumetric), isobaric, isothermal and adiabatic changes of state of an ideal gas. ★
- Draw and annotate thermodynamic processes and cycles on *P*–*V* diagrams. ★
- Calculate from a *P*–*V* diagram the work done in a thermodynamic cycle. ★
- Solve problems involving state changes of a gas. ★
- State that the second law of thermodynamics implies that thermal energy cannot spontaneously transfer from a region of low temperature to a region of high

temperature. ★
- State that entropy is a system property that expresses the degree of disorder in the system. ★
- State the second law of thermodynamics in terms of entropy changes. ★
- Discuss examples of natural processes in terms of entropy changes. ★

Benchmark 5: Understand and demonstrate the knowledge of electricity and magnetism
OUTCOME: the student should be able to :

- Define *electric potential difference*.
- Determine the change in potential energy when a charge moves between two points at different potentials.
- Define the *electronvolt*.
- Solve problems involving electric potential difference.
- Define *electric current* and *resistance.*
- State Ohm's law.
- Compare ohmic and non-ohmic behaviour.
- Derive and apply expressions for electrical power dissipation in resistors.
- Solve problems involving potential difference, current and resistance.
- Define *electromotive force* (*emf*).
- Describe the concept of internal resistance.
- Apply the equations for resistors in series and in parallel.
- Draw circuit diagrams.
- Describe the use of ideal ammeters and ideal voltmeters.
- Describe a potential divider.
- Explain the use of sensors in potential divider circuits.
- Solve problems involving electric circuits.
- State that there are two types of electric charge.
- State and apply the law of conservation of charge.
- Describe and explain the difference in the electrical properties of conductors and insulators.
- State Coulomb's law.
- Define *electric field strength*.
- Determine the electric field strength due to one or more point charges.
- Draw the electric field patterns for different charge configurations.
- Solve problems involving electric charges, forces and fields.
- State that moving charges give rise to magnetic fields.
- Draw magnetic field patterns due to currents.
- Determine the direction of the force on a current-carrying conductor in a magnetic field.
- Determine the direction of the force on a charge moving in a magnetic field.
- Define the *magnitude* and *direction* of a magnetic field.
- Solve problems involving magnetic forces, fields and currents.
- Define *electric potential* and *electric potential energy*. ★
- State and apply the expression for electric potential due to a point charge. ★
- State and apply the formula relating electric field strength to electric potential gradient. ★
- Determine the potential due to one or more point charges. ★
- Describe and sketch the pattern of equipotential surfaces due to one and two point charges. ★

- State the relation between equipotential surfaces and electric field lines. ★
- Solve problems involving electric potential energy and electric potential. ★
- Describe the inducing of an emf by relative motion between a conductor and a magnetic field. ★
- Derive the formula for the emf induced in a straight conductor moving in a magnetic field. ★
- Define *magnetic flux* and *magnetic flux linkage*. ★
- Describe the production of an induced emf by a time-changing magnetic flux. ★
- State Faraday's law and Lenz's law. ★
- Solve electromagnetic induction problems. ★
- Describe the emf induced in a coil rotating within a uniform magnetic field. ★
- Explain the operation of a basic alternating current (ac) generator. ★
- Describe the effect on the induced emf of changing the generator frequency. ★
- Discuss what is meant by the root mean squared (rms) value of an alternating current or voltage. ★
- State the relation between peak and rms values for sinusoidal currents and voltages. ★
- Solve problems using peak and rms values. ★
- Solve ac circuit problems for ohmic resistors. ★
- Describe the operation of an ideal transformer. ★
- Solve problems on the operation of ideal transformers. ★
- Outline the reasons for power losses in transmission lines and real transformers ★
- Explain the use of high-voltage step-up & step-down transformers in the transmission of electrical power. ★
- Solve problems on the operation of real transformers and power transmission. ★
- Suggest how extra-low-frequency electromagnetic fields, such as those created by electrical appliances and power lines, induce currents within a human body. ★
- Discuss some of the possible risks involved in living and working near high-voltage power lines. ★

Benchmark 6: Understand and demonstrate the knowledge of atomic and nuclear physics
OUTCOME: the student should be able to :

- Describe a model of the atom that features a small nucleus surrounded by electrons.
- Outline the evidence that supports a nuclear model of the atom.
- Outline one limitation of the simple model of the nuclear atom.
- Outline evidence for the existence of atomic energy levels.
- Explain the terms nuclide, isotope and nucleon.
- Define *nucleon number A*, *proton number Z* and *neutron number N*.
- Describe the interactions in a nucleus.
- Describe the phenomenon of natural radioactive decay.
- Describe the properties of alpha (α) and beta (β) particles and gamma (γ) radiation.
- Describe the ionizing properties of alpha (α) and beta (β) particles and gamma (γ) radiation.
- Outline the biological effects of ionizing radiation.
- Explain why some nuclei are stable while others are unstable.
- State that radioactive decay is a random and spontaneous process and that the rate of decay decreases exponentially with time.
- Define the term *radioactive half-life*.

- Determine the half-life of a nuclide from a decay curve.
- Solve radioactive decay problems involving integral numbers of half-lives.
- Describe and give an example of an artificial (induced) transmutation.
- Construct and complete nuclear equations.
- Apply the Einstein mass–energy equivalence relationship.
- Define the concepts of *mass defect*, *binding energy* and *binding energy per nucleon*.
- Draw and annotate a graph showing the variation with nucleon number of the binding energy per nucleon.
- Solve problems involving mass defect and binding energy.
- Describe the processes of nuclear fission and nuclear fusion.
- Describe the photoelectric effect. ★
- Describe the concept of the photon, and use it to explain the photoelectric effect. ★
- Describe and explain an experiment to test the Einstein model. ★
- Solve problems involving the photoelectric effect. ★
- Describe the de Broglie hypothesis and the concept of matter waves. ★
- Outline an experiment to verify the de Broglie hypothesis. ★
- Solve problems involving matter waves. ★
- Outline a laboratory procedure for producing and observing atomic spectra. ★
- Explain how atomic spectra provide evidence for the quantization of energy in atoms. ★
- Calculate wavelengths of spectral lines from energy level differences and vice versa. ★
- Explain the origin of atomic energy levels in terms of the "electron in a box" model. ★
- Outline the Schrödinger model of the hydrogen atom. ★
- Outline the Heisenberg uncertainty principle with regard to position–momentum and time–energy. ★

Benchmark 7: Understand and demonstrate the knowledge of digital technology and electronics ★
OUTCOME: the student should be able to :

- Solve problems involving the conversion between binary numbers and decimal numbers.
- Describe different means of storage of information in both analogue and digital forms.
- Explain how interference of light is used to recover information stored on a CD.
- Calculate an appropriate depth for a pit from the wavelength of the laser light.
- Solve problems on CDs and DVDs related to data storage capacity.
- Discuss the advantage of the storage of information in digital rather than analogue form.
- Discuss the implications for society of ever-increasing capability of data storage.
- Define *capacitance*.
- Describe the structure of a charge-coupled device (CCD).
- Explain how incident light causes charge to build up within a pixel.
- Outline how the image on a CCD is digitized.
- Define *quantum efficiency* of a pixel.
- Define *magnification*.

- State that two points on an object may be just resolved on a CCD if the images of the points are at least two pixels apart.
- Discuss the effects of quantum efficiency, magnification & resolution on the quality of the processed image.
- Describe a range of practical uses of a CCD, and list some advantages compared with the use of film.
- Outline how the image stored in a CCD is retrieved.
- Solve problems involving the use of CCDs.

Benchmark 8: Understand and demonstrate the knowledge of communication systems★
OUTCOME: the student should be able to :

- Describe what is meant by the modulation of a wave.
- Distinguish between a carrier wave and a signal wave.
- Describe the nature of amplitude modulation (AM) and frequency modulation (FM).
- Solve problems based on the modulation of the carrier wave in order to determine the frequency and amplitude of the information signal.
- Sketch and analyse graphs of the power spectrum of a carrier wave that is amplitude-modulated by a single-frequency signal.
- Define what is meant by *sideband frequencies* and *bandwidth*.
- Solve problems involving sideband frequencies and bandwidth.
- Describe the relative advantages and disadvantages of AM and FM for radio transmission and reception.
- Describe, by means of a block diagram, an AM radio receiver.
- Solve problems involving the conversion between binary numbers and decimal numbers.
- Distinguish between analogue and digital signals.
- State the advantages of the digital transmission, as compared to the analogue transmission, of information.
- Describe, using block diagrams, the principles of the transmission and reception of digital signals.
- Explain the significance of the number of bits and the bit-rate on the reproduction of a transmitted signal.
- Describe what is meant by time-division multiplexing.
- Solve problems involving analogue-to-digital conversion.
- Describe the consequences of digital communication and multiplexing on worldwide communications.
- Discuss the moral, ethical, economic and environmental issues arising from access to the Internet.
- Explain what is meant by critical angle and total internal reflection.
- Solve problems involving refractive index and critical angle.
- Apply the concept of total internal reflection to the transmission of light along an optic fibre.
- Describe the effects of material dispersion and modal dispersion.
- Explain what is meant by attenuation and solve problems involving attenuation measured in decibels (dB).
- Describe the variation with wavelength of the attenuation of radiation in the core of a monomode fibre.

- State what is meant by noise in an optic fibre.
- Describe the role of amplifiers and reshapers in optic fibre transmission.
- Solve problems involving optic fibres.

Benchmark 9: Understand and demonstrate the knowledge of medical physics and imaging★
OUTCOME: the student should be able to :

- Describe the basic structure of the human ear.
- State and explain how sound pressure variations in air are changed into larger pressure variations in the cochlear fluid.
- State the range of audible frequencies experienced by a person with normal hearing.
- State and explain that a change in observed loudness is the response of the ear to a change in intensity.
- State and explain that there is a logarithmic response of the ear to intensity.
- Define *intensity* and also *intensity level* (*IL*).
- State the approximate magnitude of the intensity level at which discomfort is experienced by a person with normal hearing.
- Solve problems involving intensity levels.
- Describe the effects on hearing of short-term and long-term exposure to noise.
- Analyse and give a simple interpretation of graphs where IL is plotted against the logarithm of frequency for normal and for defective hearing.
- Define the terms *attenuation coefficient* and *half-value thickness*.
- Derive the relation between attenuation coefficient and half-value thickness.
- Describe X-ray detection, recording and display techniques.
- Explain standard X-ray imaging techniques used in medicine.
- Outline the principles of computed tomography (CT).
- Describe the principles of the generation and the detection of ultrasound using piezoelectric crystals.
- Define *acoustic impedance* as the product of the density of a substance and the speed of sound in that substance.
- Solve problems involving acoustic impedance.
- Outline the differences between A-scans and B-scans.
- Identify factors that affect the choice of diagnostic frequency.
- Outline the basic principles of nuclear magnetic resonance (NMR) imaging.
- Describe examples of the use of lasers in clinical diagnosis and therapy.
- State the meanings of the terms exposure, absorbed dose, quality factor (relative biological effectiveness) and dose equivalent as used in radiation dosimetry.
- Discuss the precautions taken in situations involving different types of radiation.
- Discuss the concept of balanced risk.
- Distinguish between physical half-life, biological half-life and effective half-life.
- Solve problems involving radiation dosimetry.
- Outline the basis of radiation therapy for cancer.
- Solve problems involving the choice of radio-isotope suitable for a particular diagnostic or therapeutic application.
- Solve problems involving particular diagnostic applications.

Standard 4: **PHYSICAL SCIENCE**: Students know and understand the Chemical interactions between, the changes in, and the properties of matter

Benchmark 1: Understand and demonstrate the knowledge of Oxidation and Reduction
OUTCOME: the student should be able to:

- Define *oxidation* and *reduction* in terms of electron loss and gain.
- Deduce the oxidation number of an element in a compound.
- State the names of compounds using oxidation numbers.
- Deduce whether an element undergoes oxidation or reduction in reactions using oxidation numbers.
- Deduce simple oxidation and reduction half-equations given the species involved in a redox reaction.
- Deduce redox equations using half-equations.
- Define the terms *oxidizing agent* and *reducing agent*.
- Identify the oxidizing and reducing agents in redox equations.
- Deduce a reactivity series based on the chemical behaviour of a group of oxidizing and reducing agents.
- Deduce the feasibility of a redox reaction from a given reactivity series.
- Explain how a redox reaction is used to produce electricity in a voltaic cell.
- State that oxidation occurs at the negative electrode (anode) and reduction occurs at the positive electrode.
- Describe, using a diagram, the essential components of an electrolytic cell.
- State that oxidation occurs at the positive electrode and reduction occurs at the negative electrode.
- Describe how current is conducted in an electrolytic cell.
- Deduce the products of the electrolysis of a molten salt.

Benchmark 2: Understand and demonstrate the knowledge of Organic Chemistry
OUTCOME: the student should be able to:

- Describe the features of a homologous series.
- Predict and explain the trends in boiling points of members of a homologous series.
- Distinguish between *empirical*, *molecular* and *structural* formulas.
- Describe structural isomers as compounds with the same molecular formula but with different arrangements of atoms.
- Deduce structural formulas for the isomers of the non-cyclic alkanes up to C6.
- Apply IUPAC rules for naming the isomers of the non-cyclic alkanes up to C6.
- Deduce structural formulas for the isomers of the straight-chain alkenes up to C6.
- Apply IUPAC rules for naming the isomers of the straight-chain alkenes up to C6.
- Deduce structural formulas for compounds containing up to six carbon atoms with one of the following functional groups: alcohol, aldehyde, ketone, carboxylic acid and halide.
- Apply IUPAC rules for naming compounds containing up to six carbon atoms with one of the following functional groups: alcohol, aldehyde, ketone, carboxylic acid and halide.
- Identify the following functional groups when present in structural formulas: amino (NH2), benzene ring and esters (RCOOR).
- Identify primary, secondary and tertiary carbon atoms in alcohols and halogenoalkanes.

- Discuss the volatility and solubility in water of compounds containing the functional listed groups.
- Explain the low reactivity of alkanes in terms of bond enthalpies and bond polarity.
- Describe, using equations, the complete and incomplete combustion of alkanes.
- Describe, using equations, the reactions of methane and ethane with chlorine and bromine.
- Explain the reactions of methane and ethane with chlorine and bromine in terms of a free-radical mechanism.
- Describe, using equations, the reactions of alkenes with hydrogen and halogens.
- Describe, using equations, the reactions of symmetrical alkenes with hydrogen halides and water.
- Distinguish between *alkanes* and *alkenes* using bromine water.
- Outline the polymerization of alkenes.
- Outline the economic importance of the reactions of alkenes.
- Describe, using equations, the complete combustion of alcohols.
- Describe, using equations, the oxidation reactions of alcohols.
- Determine the products formed by the oxidation of primary and secondary alcohols.
- Describe, using equations, the substitution reactions of halogenoalkanes with sodium hydroxide.
- Explain the substitution reactions of halogenoalkanes with sodium hydroxide in terms of SN1 and SN2 mechanisms.
- Deduce reaction pathways given the starting materials and the product.

Benchmark 3: Understand and demonstrate the knowledge of Measurement and Data processing
OUTCOME: the student should be able to :

- Describe and give examples of random uncertainties and systematic errors.
- Distinguish between *precision* and *accuracy*.
- Describe how the effects of random uncertainties may be reduced.
- State random uncertainty as an uncertainty range (±).
- State the results of calculations to the appropriate number of significant figures.
- State uncertainties as absolute and percentage uncertainties.
- Determine the uncertainties in results.
- Sketch graphs to represent dependences and interpret graph behaviour.
- Construct graphs from experimental data.
- Draw best-fit lines through data points on a graph.
- Determine the values of physical quantities from graphs.

Benchmark 4: Understand and demonstrate the knowledge of Atomic Structure ★
OUTCOME: the student should be able to :

- Explain how evidence from first ionization energies across periods accounts for the existence of main energy levels and sub-levels in atoms.
- Explain how successive ionization energy data is related to the electron configuration of an atom.
- State the relative energies of s, p, d and f orbitals in a single energy level.
- State the maximum number of orbitals in a given energy level.
- Draw the shape of an s orbital and the shapes of the p*x*, p*y* and p*z* orbitals.

- Apply the Aufbau principle, Hund's rule and the Pauli Exclusion Principle to write electron configurations for atoms and ions up to $Z = 54$.

Benchmark 5: Understand and demonstrate the knowledge of Bonding ★
OUTCOME: the student should be able to :

- Predict the shape and bond angles for species with five and six negative charge centres using the VSEPR theory.
- Describe σ and π bonds.
- Explain hybridization in terms of the mixing of atomic orbitals to form new orbitals for bonding.
- Identify and explain the relationships between Lewis structures, molecular shapes and types of hybridization (sp, sp^2 and sp^3).
- Describe the delocalization of π electrons and explain how this can account for the structures of some species.

Benchmark 6: Understand and demonstrate the knowledge of Periodicity ★
OUTCOME: the student should be able to :

- Explain the physical states (under standard conditions) and electrical conductivity (in the molten state) of the chlorides and oxides of the elements in period 3 in terms of their bonding and structure.
- Describe the reactions of chlorine and the chlorides referred to in 13.1.1 with water.
- List the characteristic properties of transition elements.
- Explain why Sc and Zn are not considered to be transition elements.
- Explain the existence of variable oxidation number in ions of transition elements.
- Define the term *ligand*.
- Describe and explain the formation of complexes of d-block elements.
- Explain why some complexes of d-block elements are coloured.
- State examples of the catalytic action of transition elements and their compounds.
- Outline the economic significance of catalysts in the Contact and Haber processes.

Benchmark 7: Understand and demonstrate the knowledge of Energetics ★
OUTCOME: the student should be able to :

- Define and apply the terms *standard state, standard enthalpy change of formation* ($\Delta H_f^{\ominus}$) and *standard enthalpy change of combustion* ($\Delta H_c^{\ominus}$)
- Determine the enthalpy change of a reaction using standard enthalpy changes of formation and combustion.
- Define and apply the terms *lattice enthalpy* and *electron affinity*.
- Explain how the relative sizes and the charges of ions affect the lattice enthalpies of different ionic compounds.
- Construct a Born–Haber cycle for group 1 and 2 oxides and chlorides, and use it to calculate an enthalpy change.
- Discuss the difference between theoretical and experimental lattice enthalpy values of ionic compounds in terms of their covalent character.
- State and explain the factors that increase the entropy in a system.
- Predict whether the entropy change (ΔS) for a given reaction or process is positive or negative.

- Calculate the standard entropy change for a reaction ($\Delta S^{Ö}$) using standard entropy values ($S^{Ö}$) .
- Predict whether a reaction or process will be spontaneous by using the sign of $\Delta G^{Ö}$.
- Calculate ΔGÖ for a reaction using the Equation $\Delta G^{Ö}=\Delta H^{Ö}-T\Delta S^{Ö}$ and by using values of the standard free energy change of formation, ΔGf ^{Ö} .
- Predict the effect of a change in temperature on the spontaneity of a reaction using standard entropy and enthalpy changes and the equation $\Delta G^{Ö}=\Delta H^{Ö}-T\Delta S^{Ö}$.

Benchmark 8: Understand and demonstrate the knowledge of Equilibrium ★
OUTCOME: the student should be able to :

- Describe the equilibrium established between a liquid and its own vapour and how it is affected by temperature changes.
- Sketch graphs showing the relationship between vapour pressure and temperature and explain them in terms of the kinetic theory.
- State and explain the relationship between enthalpy of vaporization, boiling point and intermolecular forces.
- Solve homogeneous equilibrium problems using the expression for K_c.

Benchmark 9: Understand and demonstrate the knowledge of Kinetics ★
OUTCOME: the student should be able to :

- Distinguish between the terms *rate constant*, *overall order of reaction* and *order of reaction* with respect to a particular reactant.
- Deduce the rate expression for a reaction from experimental data.
- Solve problems involving the rate expression.
- Sketch, identify and analyse graphical representations for zero-, first- and second-order reactions.
- Explain that reactions can occur by more than one step and that the slowest step determines the rate of reaction (rate-determining step).
- Describe the relationship between reaction mechanism, order of reaction and rate-determining step.
- Describe qualitatively the relationship between the rate constant (k) and temperature (T).
- Determine activation energy (E_a) values from the Arrhenius equation by a graphical method.

Benchmark 10: Understand and demonstrate the knowledge of Acids and Bases ★
OUTCOME: the student should be able to :

- State the expression for the ionic product constant of water (Kw).
- Deduce $[H^+(aq)]$ and $[OH^-(aq)]$ for water at different temperatures given Kw values.
- Solve problems involving $[H^+(aq)]$, $[OH^-(aq)]$, pH and pOH.
- State the equation for the reaction of any weak acid or weak base with water, and hence deduce the expressions for Ka and Kb.
- Solve problems involving solutions of weak acids and bases using the expressions:
- $K\text{a} \times K\text{b} = K\text{w}$
- $\text{p}K\text{a} + \text{p}K\text{b} = \text{p}K\text{w}$
- $\text{pH} + \text{pOH} = \text{p}K\text{w}$.

- Identify the relative strengths of acids and bases using values of *K*a, *K*b, p*K*a and p*K*b.
- Describe the composition of a buffer solution and explain its action.
- Solve problems involving the composition and pH of a specified buffer system.
- Deduce whether salts form acidic, alkaline or neutral aqueous solutions.
- Sketch the general shapes of graphs of pH against volume for titrations involving strong and weak acids and bases, and explain their important features.
- Describe qualitatively the action of an acid–base indicator.
- State and explain how the pH range of an acid–base indicator relates to its p*K*a value.
- Identify an appropriate indicator for a titration, given the equivalence point of the titration and the pH range of the indicator.

Benchmark 11: Understand and demonstrate the knowledge of Oxidation and Reduction ★
OUTCOME: t the student should be able to :

- Describe the standard hydrogen electrode.
- Define the term *standard electrode potential* ($E^{Ö}$) .
- Calculate cell potentials using standard electrode potentials.
- Predict whether a reaction will be spontaneous using standard electrode potential values.
- Predict and explain the products of electrolysis of aqueous solutions.
- Determine the relative amounts of the products formed during electrolysis.
- Describe the use of electrolysis in electroplating.

Benchmark 12: Understand and demonstrate the knowledge of Organic Chemistry ★
OUTCOME: the student should be able to :

- Deduce structural formulas for compounds containing up to six carbon atoms with one of the following functional groups: amine, amide, ester and nitrile.
- Apply IUPAC rules for naming compounds containing up to six carbon atoms with one of the following functional groups: amine, amide, ester and nitrile.
- Explain why the hydroxide ion is a better nucleophile than water.
- Describe and explain how the rate of nucleophilic substitution in halogenoalkanes by the hydroxide ion depends on the identity of the halogen.
- Describe and explain how the rate of nucleophilic substitution in halogenoalkanes by the hydroxide ion depends on whether the halogenoalkane is primary, secondary or tertiary.
- Describe, using equations, the substitution reactions of halogenoalkanes with ammonia and potassium cyanide.
- Explain the reactions of primary halogenoalkanes with ammonia and potassium cyanide in terms of the SN2 mechanism.
- Describe, using equations, the reduction of nitriles using hydrogen and a nickel catalyst.
- Describe, using equations, the elimination of HBr from bromoalkanes.
- Describe and explain the mechanism for the elimination of HBr from bromoalkanes.
- Describe, using equations, the reactions of alcohols with carboxylic acids to form esters, and state the uses of esters.
- Describe, using equations, the reactions of amines with carboxylic acids.

- Deduce the structures of the polymers formed in the reactions of alcohols with carboxylic acids.
- Deduce the structures of the polymers formed in the reactions of amines with carboxylic acids
- Outline the economic importance of condensation reactions.
- Deduce reaction pathways given the starting materials and the product.
- Describe stereoisomers as compounds with the same structural formula but with different arrangements of atoms in space.
- Describe and explain geometrical isomerism in non-cyclic alkenes.
- Describe and explain geometrical isomerism in C3 and C4 cycloalkanes.
- Explain the difference in the physical and chemical properties of geometrical isomers.
- Describe and explain optical isomerism in simple organic molecules.
- Outline the use of a polarimeter in distinguishing between optical isomers.
- Compare the physical and chemical properties of enantiomers.

Benchmark 13: Understand and demonstrate the knowledge of Analytical Chemistry
OUTCOME: the student should be able to :

- State the reasons for using analytical techniques.
- State that the structure of a compound can be determined by using information from a variety of analytical techniques singularly or in combination.
- Describe the electromagnetic spectrum.
- Distinguish between *absorption* and *emission* spectra and how each is produced.
- Describe the atomic and molecular processes in which absorption of energy takes place.
- Describe the operating principles of a double-beam IR spectrometer.
- Describe how information from an IR spectrum can be used to identify bonds.
- Explain what occurs at a molecular level during the absorption of IR radiation by molecules.
- Analyse IR spectra of organic compounds.
- Determine the molecular mass of a compound from the molecular ion peak.
- Analyse fragmentation patterns in a mass spectrum to find the structure of a compound.
- Deduce the structure of a compound given information from its ^{1}H NMR spectrum.
- Outline how NMR is used in body scanners.
- State the uses of AA spectroscopy.
- Describe the principles of atomic absorption.
- Describe the use of each of the following components of the AA spectrophotometer: fuel, atomizer, monochromatic light source, monochromatic detector and readout.
- Determine the concentration of a solution from a calibration curve.
- State the reasons for using chromatography.
- Explain that all chromatographic techniques involve adsorption on a stationary phase and partition between a stationary phase and a mobile phase.
- Outline the use of paper chromatography, thin-layer chromatography (TLC) and column chromatography.
- Describe the effect of different ligands on the splitting of the d orbitals in transition metal complexes. ★

- Describe the factors that affect the colour of transition metal complexes. ★
- State that organic molecules containing a double bond absorb UV radiation. ★
- Describe the effect of the conjugation of double bonds in organic molecules on the wavelength of the absorbed light. ★
- Predict whether or not a particular molecule will absorb UV or visible radiation. ★
- Determine the concentration of a solution from a calibration curve using the Beer–Lambert law. ★
- Explain the use of tetramethylsilane (TMS) as the reference standard. ★
- Analyse ^{1}H NMR spectra. ★
- Describe the techniques of gas–liquid chromatography (GLC) and highperformance liquid chromatography (HPLC). ★
- Deduce which chromatographic technique is most appropriate for separating the components in a particular mixture. ★

Benchmark 14: Understand and demonstrate the knowledge of Environmental Chemistry
OUTCOME: the student should be able to :

- Describe the main sources of carbon monoxide (CO), oxides of nitrogen (NO_x), oxides of sulfur (SO_x), particulates and volatile organic compounds (VOCs) in the atmosphere.
- Evaluate current methods for the reduction of air pollution.
- State what is meant by the term acid deposition and outline its origins.
- Discuss the environmental effects of acid deposition and possible methods to counteract them.
- Describe the greenhouse effect.
- List the main greenhouse gases and their sources, and discuss their relative effects.
- Discuss the influence of increasing amounts of greenhouse gases on the atmosphere.
- Describe the formation and depletion of ozone in the stratosphere by natural processes.
- List the ozone-depleting pollutants and their sources.
- Discuss the alternatives to CFCs in terms of their properties.
- Outline biochemical oxygen demand (BOD) as a measure of oxygendemanding wastes in water.
- Distinguish between *aerobic* and *anaerobic* decomposition of organic material in water.
- Describe the process of eutrophication and its effects.
- Describe the source and effects of thermal pollution in water.
- List the primary pollutants found in waste water and identify their sources.
- Outline the primary, secondary and tertiary stages of waste water treatment, and state the substance that is removed during each stage.
- Evaluate the process to obtain fresh water from sea water using multistage distillation and reverse osmosis.
- Discuss salinization, nutrient depletion and soil pollution as causes of soil degradation.
- Describe the relevance of the soil organic matter (SOM) in preventing soil degradation, and outline its physical and biological functions.
- List common organic soil pollutants and their sources.

- Outline and compare the various methods for waste disposal.
- Describe the recycling of metal, glass, plastic and paper products, and outline its benefits.
- Describe the characteristics and sources of different types of radioactive waste.
- Compare the storage and disposal methods for different types of radioactive waste.
- Explain the dependence of O_2 and O_3 dissociation on the wavelength of light. ★
- Describe the mechanism in the catalysis of O_3 depletion by CFCs and NO_x. ★
- Outline the reasons for greater ozone depletion in Polar Regions. ★
- State the source of primary pollutants and the conditions necessary for the formation of photochemical smog. ★
- Outline the formation of secondary pollutants in photochemical smog. ★
- Describe the mechanism of acid deposition caused by the oxides of nitrogen and oxides of sulfur. ★
- Explain the role of ammonia in acid deposition. ★
- Solve problems relating to the removal of heavy-metal ions, phosphates and nitrates from water by chemical precipitation. ★
- State what is meant by the term cation-exchange capacity (CEC) and outline its importance. ★
- Discuss the effects of soil pH on cation-exchange capacity and availability of nutrients. ★
- Describe the chemical functions of soil organic matter (SOM). ★

Standard 5: EARTH and SPACE SCIENCE: Students will understand the structures and changes of the earth and universe.

Benchmark 1: Understand and demonstrate the knowledge of Conversation and Biodiversity
OUTCOME: the student should be able to:

- Define the terms *biodiversity*, *genetic diversity*, *species diversity* and *habitat diversity*.
- Outline the mechanism of natural selection as a possible driving force for speciation.
- State that isolation can lead to different species being produced that are unable to interbreed to yield fertile offspring.
- Explain how plate activity has influenced evolution and biodiversity.
- Explain the relationships among ecosystem stability, diversity, succession and habitat.
- Identify factors that lead to loss of diversity.
- Discuss the perceived vulnerability of tropical rainforests and their relative value in contributing to global biodiversity.
- Discuss current estimates of numbers of species and past and present rates of species extinction.
- Describe and explain the factors that may make species more or less prone to extinction.
- Outline the factors used to determine a species' Red List conservation status.
- Describe the case histories of three different species: one that has become extinct, another that is critically endangered, and a third species whose conservation status has been improved by intervention.

- Describe the case history of a natural area of biological significance that is threatened by human activities.
- State the arguments for preserving species and habitats.
- Compare and contrast the role and activities of intergovernmental and non‑governmental organizations in preserving and restoring ecosystems and biodiversity.
- State and explain the criteria used to design protected areas.
- Evaluate the success of a named protected area.
- Discuss and evaluate the strengths and weaknesses of the species-based approach to conservation.

Benchmark 2: Understand and demonstrate the knowledge of pollution management
OUTCOME: the student should be able to:

- Define the term *pollution*.
- Distinguish between the terms point source pollution and nonpoint source pollution, and outline the challenges they present for management.
- State the major sources of pollutants.
- Describe two direct methods of monitoring pollution.
- Define the term *biochemical oxygen demand* (BOD) and explain how this indirect method is used to assess pollution levels in water.
- Describe and explain an indirect method of measuring pollution levels using a biotic index.
- Outline approaches to pollution management.
- Discuss the human factors that affect the approaches to pollution management.
- Evaluate the costs and benefits to society of the World Health Organization's ban on the use of the pesticide DDT.
- Outline the processes of eutrophication.
- Evaluate the impacts of eutrophication.
- Describe and evaluate pollution management strategies with respect to eutrophication.
- Outline the types of solid domestic waste.
- Describe and evaluate pollution management strategies for solid domestic (municipal) waste.
- Outline the overall structure and composition of the atmosphere.
- Describe the role of ozone in the absorption of ultraviolet radiation.
- Explain the interaction between ozone and halogenated organic gases.
- State the effects of ultraviolet radiation on living tissues and biological productivity.
- Describe three methods of reducing the manufacture and release of ozone‑depleting substances.
- Describe and evaluate the role of national and international organizations in reducing the emissions of ozone‑depleting substances.
- State the source and outline the effect of tropospheric ozone.
- Outline the formation of photochemical smog.
- Describe and evaluate pollution management strategies for urban air pollution.
- Outline the chemistry leading to the formation of acidified precipitations.
- Describe three possible effects of acid deposition on soil, water and living organisms.

- Explain why the effect of acid deposition is regional rather than global.
- Describe and evaluate pollution management strategies for acid deposition.

Benchmark 3: Understand and demonstrate the knowledge of the issue of global warming
OUTCOME: the student should be able to :

- Describe the role of greenhouse gases in maintaining mean global temperature.
- Describe how human activities add to greenhouse gases.
- Discuss qualitatively the potential effects of increased mean global temperature.
- Discuss the feedback mechanisms that would be associated with an increase in mean global temperature.
- Describe and evaluate pollution management strategies to address the issue of global warming.
- Outline the arguments surrounding global warming.
- Evaluate contrasting human perceptions of the issue of global warming.

Benchmark 4: Understand and demonstrate the knowledge of Environmental value systems
OUTCOME: the student should be able to :

- State what is meant by an environmental value system.
- Outline the range of environmental philosophies.
- Discuss how these philosophies influence the decision‐making process with respect to environmental issues covered in this course.
- Outline key historical influences on the development of the modern environmental movement.
- Compare and contrast the environmental value systems of two named societies.
- Justify your personal viewpoint on environmental issues.

Resources

MYP Science – Subject Guide – 2010
IBDP Physics Guide – 2009
IBDP Chemistry Guide – 2009
IBDP Biology Guide – 2009
IBDP Environmental Systems and Societies Guide – 2009
Westwood Community Schools Standards and Benchmarks
Academic Content Standards
K-12 Science
Ohio Department of Education

Introduction

The primary goal of the program in mathematics at NIS is to enable students to become active participants in the study of fundamental and dynamic areas of human ingenuity.

At NIS we concentrate at helping the students to answer the question: Why we are studying mathematics? This can be done by making them know how mathematics is related to our life. How mathematics can affect different aspects in our life. Make the students understand that mathematics is the quantitative language of science and social sciences. And finally create the appreciation of the inherent structure and beauty of mathematics.

In NIS MYP mathematics, the four main objectives support the IB learner profile, promoting the development of students who are knowledgeable, inquirers, communicators and reflective learners.

Knowledge and understanding promotes learning mathematics with understanding, allowing students to interpret results, make conjectures and use mathematical reasoning when solving problems in school and in real-life situations.

Investigating patterns supports inquiry-based learning. Through the use of investigations, teachers challenge students to experience mathematical discovery, recognize patterns and structures, describe these as relationships or general rules, and explain their reasoning using mathematical justifications and proofs.

Communication in mathematics encourages students to use the language of mathematics and its different forms of representation, to communicate their findings and reasoning effectively, both orally and in writing.

Reflection in mathematics provides an opportunity for students to reflect upon their processes and evaluate the significance of their findings in connection to real-life contexts. Reflection allows students to become aware of their strengths and the challenges they face as learners.

NIS mathematics provides a framework of concepts and skills organized into the following branches of mathematics.

- **Number**
- **Algebra**
- **Geometry and trigonometry(shape and space)**
- **Data handling Statistics and probability**
- **Discrete mathematics**

In grades 11 , and 12 we offer the IB mathematics standard level and look forward to Higher level . We also offer non IB students a course that is taken from IB Mathematical studies to accommodate for their need and future studies.

In these two grades students continue to study the 5 main standards of mathematics and we also offer them

Calculus
Matrices
Vectors

With focus on technology using Math software and graphic calculator

Aims

The aims of teaching and learning mathematics are to encourage and enable students to:

- recognize that mathematics permeates the world around us
- appreciate the usefulness, power and beauty of mathematics
- enjoy mathematics and develop patience and persistence when solving problems
- understand and be able to use the language, symbols and notation of mathematics
- develop mathematical curiosity and use inductive and deductive reasoning when solving problems
- become confident in using mathematics to analyze and solve problems both in school and in real-life situations
- develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics
- develop abstract, logical and critical thinking and the ability to reflect critically upon their work and the work of others
- develop a critical appreciation of the use of information and communication technology in mathematics
- appreciate the international dimension of mathematics and its multicultural and historical perspectives.

Grade 7

Standard 1 : NUMBERS - By the end of grade 7 students should

Benchmark 1: Understand and manipulate ratios and apply them in real life problems
OUTCOME:

- Operate with fractions, decimals, percentages, ratios and rates.
- Write ratios in various forms – eg 4/6, 4:6, 4 to 6.
- Calculate speed given distance and time.
- Read and interprets scale drawings.
- Use ratio to solve problems
- Divide a quantity in a given ratio
- Use ratio to Draw to a given scale

Benchmark 2: Understand and manipulate fractions and percentages
OUTCOME:

- Increase and decreases a quantity by a given percentage.
- Use a number of strategies to solve unfamiliar problems:
  - Using a table
  - Looking for patterns
  - Simplifying the problem
  - Drawing a diagram
  - Working backwards
  - Guessing and refining
- Develop an ability to translate from words to mathematical language.

Standard 2 ALGEBRA - By the end of grade 7 student should

Benchmark 1: Be able to use algebraic symbols and letters
OUTCOME :

- Use letters to represent numbers and translates between words and algebraic symbols.
- Create, records, analyses and generalises number patterns using words and algebraic symbols in a variety of ways.
- Use the algebraic symbol system to simplify, expand and factorise simple algebraic expressions.
- Use index notation to express powers of numbers (positive indices only) eg $8 = 2^3$.
- Recognize the role of grouping symbols and the different meanings of expressions, such as 2a+1 and 2(a+1).
- Use algebraic techniques to solve linear equations and simple inequalities.
- Solves simple linear equations using concrete materials, such as the balance model or cups and counters, stressing the notion of doing the same thing to both sides of an equation.
- Show an understanding that an algebraic expression is a way of summarising a real situation or a verbally expressed statement.

- Know the difference between algebraic *terms*, *expressions* and *equations* will need constant emphasis.

Benchmark 2 : understand patterns and interpret graphs
OUTCOME:

- Graphs and interprets linear relationships on the number plane.
- Identify the point of intersection of the two axes as the origin, having coordinates (0,0).
- Read, plots and names ordered pairs on the number plane.
- Extend the line joining a set of points to show that there is an infinite number of ordered pairs that satisfy a given linear relationship.
- Graph more than one line on the same set of axes and compares the graphs to determine similarities and differences – eg parallel, passing through the same point.
- Construct, reads and interprets graphs, tables, charts and statistical information.
- Understand that a graph is used as a form of communication.
- Choose appropriate scales on the horizontal and vertical axes when drawing graphs.
- Compare the strengths and weaknesses of different forms of data display.
- Draw and interprets travel graphs, recognising concepts such as change of speed and change of direction.

Standard 3 : GEOMETRY and SHAPE/SPACE -By the end of grade 7 students should :

Benchmark 1 : realize and understand the lines and figures and polygons
OUTCOME:

- Identify and names angles formed by the intersection of straight lines, including those related to transversals on sets of parallel lines, and makes use of the relationships between them.

- Use the words ‘complementary’ and ‘supplementary’.

- Classify, constructs and determines the properties of triangles and quadrilaterals.

- Justify informally by paper folding or cutting, and tests by measuring, that the interior angle sum of a triangle is 180^o, and that any exterior angle equals the sum of the two interior opposite angles.

Benchmark 2 : Calculate volume of simple 3 d shapes and prism including the units of volume
OUTCOME

- Convert between units of volume:
  - 1 cm^3 = 1000 mm^3
  - 1 L = 1000 mL = 1000 cm^3
  - 1 m^3 = 1000 L = 1 kL

- Identify and draws the cross-section of a prism.

Standard 4 : HANDLING DATA - By the end of grade 7 students should :

Benchmark 1: realize and manipulate data and present them
OUTCOME:

- Collect statistical data using either a census or a sample, and analyses data using measure of location and range.
- distinguish between discrete and continuous data.
- Formulate key questions to generate data for a problem of interest.

Benchmark 2 : Realize the meaning of central tendency
OUTCOME:

- Recognise the difference between a census and a sample. Constructs, reads and interprets graphs, tables, charts and statistical information. Finding measures of location (mean, mode and median).

- Using a scientific or graphics calculator to determine the mean of a set of scores. Using measures of location (mean, mode, median) and range to analyse data that is displayed in a frequency distribution table, stem-and-leaf plot, or dot plot.

Standard 5 : DESCRETE MATHEMATICS and GRAPHS - By the end of grade 7 students should :

Benchmark 1 : realize nets and networks
OUTCOMES :

- Read and interpret graphs used for transport networks.
- Recognise subgraphs and trees.
- Represent given information graphically.
- Use graphs and networks to solve problems.

Grade 8

Standard 1: NUMBER - By the end of grade 8 students should:

Benchmark 1: Investigate and solve problems with Ratios
OUTCOME:

- Use and understand the order of operations
- Calculate with fractions , decimals and percentages
- Use ratios in calculations

Benchmark 2: solve problems relating to direct and indirect proportion

OUTCOME:

- Use appropriate approximations i.e. significant figures and rounding to decimal places
- Apply proportional change to scale and other problems.

Standard 2 : ALGEBRA - By the end of grade 8 students should:

Benchmark 1: Investigate problems using symbolic language and substitution
OUTCOME::

- Use algebraic symbols to represent word problems
- Simplify ,expand and factorize simple algebraic expressions
- Work with expressions involving algebraic fractions
- Simplify, expressions using indices laws

Benchmark 2: Investigate problems involving factorization and using a system of equations in two variables

OUTCOMES:

- Factorize using common factors, grouping in pairs
- Perform operations with algebraic fractions
- Apply index laws to simplify algebraic expressions
- Solve simple equations using algebraic methods
- Use simple equations to solve problems

Standard 3 : GEOMETRY SHAPE and SPACE - By the end of grade 8 students should:

Benchmark 1: Analyze a variety of geometric situations
OUTCOME:

- Solve problems relating to the angle sums of interior and exterior angles of polygons .
- Solve numerical problems related to angles created when families of parallel lines are cut by a transversal

- Use deductive geometry to solve problems involving congruent triangles and quadrilaterals
- Identify parallel and perpendicular lines

Benchmark 2: Investigate Pythagoras Theorem
OUTCOME:

- Solve problems using Pythagoras theorem and its converse
- Apply Pythagoras Theorem to solve problems including those with angles of elevation and depression
- Apply Pythagoras Theorem to calculate the short sides
- Investigate problems using Pythagorean triads

Standard 4 ; HANDLING DATA - By the end of grade 8 students should:

Benchmark 1: Determine the relative frequencies
OUTCOME:

- Students will be able to determine relative frequencies
- Theoretical and experimental probabilities

Grade 9

Standard 1 : NUMBER - By the end of grade 9 students should:

Benchmark 1: recognize rational and irrational numbers and investigate problems with an approximation and real values

OUTCOME:

- Use and understand the order of operations
- Calculate with fractions , decimals and percentages
- Use ratios in calculations
- Use appropriate approximations i.e. significant figures , rounding to decimal places

Benchmark 2: Recognise and deal with index and exponents including negative index

OUTCOME:

- Apply index laws to evaluate arithmetic expressions
- Use scientific notation to write small and large numbers
- Understand the difference between rational and irrational numbers
- Perform operations with surds and indices

Standard 2 ; ALGEBRA - By the end of grade 9 students should:

Benchmark 1: investigate and realize the basics of abstract algebra including expansion and factors

OUTCOME:

- Use algebraic symbols to represent word problems
- Simplify ,expand and factorize simple algebraic expressions
- Work with expressions involving algebraic fractions
- Expand binomial products
- Factorize using common factors, grouping in pairs
- Factorize using difference of two squares
- Factorize quadratic trinomials
- Simplify algebraic fractions by factorizing
- Perform operations with algebraic fractions

Benchmark 2: investigate problems involving factorization and using a system of equations in two variables

OUTCOME:

- Apply index laws to simplify algebraic expressions
- Solve linear simultaneous equations using graphs
- Solve linear simultaneous equations using algebraic methods
- Use simultaneous equations to solve problems

Standard3 : <u>GEOMETRY and TRIGONOMETRY SHAPE and SPACE -</u> By the end of grade 9 students should:

Benchmark 1: analyze a variety of geometric situations and properties of polygons

OUTCOME:

- Solve problems relating to the angle sums of interior and exterior angles of polygons .
- Solve numerical problems related to angles created when families of parallel lines are cut by a transversal
- Use deductive geometry to solve problems involving congruent triangles and quadrilaterals
- Solve problems using Pythagoras theorem and its converse

Benchmark 2 : apply simple properties of coordinate geometry

OUTCOME

- Find the distance between two points on the Cartesian plain
- Find the midpoint of an interval
- Graph straight lines
- Use the gradient intercept of a straight line
- Find the equation of a line given :a point and the gradient, or two points on the line
- Identify parallel and perpendicular lines

Benchmark 3: investigate problems using trigonometric ratios

OUTCOME:

- Graph linear inequalities on the Cartesian plane
- Apply trigonometry to solve problems including those with angles of elevation and depression
- Apply trigonometry to problems involving compass bearings

Standard 4 : STATISTICS - By the end of grade9 students should:

Benchmark 1: collect analyze data using measures of central tendency and range

OUTCOME:

- Draw frequency tables and graphs
- Calculate range ,mode, mean, median
- Work with grouped data
- Draw stem and leaf displays
- Calculate interquartile ranges
- Use five point summary to draw box and whisker plots

Benchmark 2: use measures of spread to analyze data

OUTCOME :

- Calculate Standard deviation

Standard 5 ; DISCRETE MATHEMATICS – By the end of grade 9 students should :

Benchmark 1 : understand and use the language of logics to describe all possible propositions for statements

OUTCOME:

- Understand and use the ideas behind propositions
- Combine sub-propositions to make a compound proposition
- Translate between words and logic notation
- Use truth tables to evaluate when compound statements are true
- Use truth tables to establish the logical equivalence of statements
- Work with, and build, conditional statements

Grade 10

Standard 1 : NUMBERS - By the end of grade 10 students should:

Benchmark 1: Organize numbers by their common properties and/or relative value.
OUTCOMES:

- Place numbers on the number line.
- Name and explain the various groups of numbers.
- Apply number properties to simplify algebraic expressions
- Use exponential notation to simplify and evaluate expressions.
- Translate verbal expressions into algebraic expressions.

Standard 2 : ALGEBRA - By the end of grade 10 student should

Benchmark 1: Interpret and compare the different uses of variables and describe patterns, properties of numbers, formulas, and equations using variables.

OUTCOMES:

- Evaluate algebraic expressions using substitution and then following order of operations.
- Solve problems dealing with systems of linear relations
- Solve basic polynomial functions of the second degree
- Transform an algebraic expression into an equivalent expression with polynomials.
- Benchmark 2: Solve equations of first or second degree.
- Learning out comes
- Solve problems involving factorization
- Solve problems using a system of equations in two variables
- Solve problems with inequalities in the Cartesian plane

Standard 3 : **GEOMETRY SHAPE and SPACE -** By the end of grade 10 students should:

Benchmark 1 : study the basics of plane geometry
OUTCOME:

- Identify similar triangles
- Find unknown sides in similar triangles using ratios
- Prove triangles similar
- Compare areas of similar shapes
- Compare volumes of similar solids
- The parts and language of circles
- Understand and prove the chord properties of circles
- Understand and prove the angle properties of circles
- Understand and prove the tangent properties of circles
- Understand and prove the properties intersecting chords secants and tangents
- Use circle properties to solve deductive problems

Benchmark 2 : Represent and interpret trigonometric ratios and apply them
OUTCOME:

- Extend trigonometry to triangles with obtuse angles and understand the relationships between acute and obtuse angles
- Apply the sine rule
- Apply the sine rule in the ambiguous case
- Apply the cosine rule
- Find the area of a non-right angled triangle using trigonometry
- Apply trigonometry to solve miscellaneous problems, including those involving more than one triangle

Standard 4: HANDLING DATA - By the end of grade 10 students should:

Benchmark 1 : Formulate questions about a phenomenon of interest that can be answered with data; design a plan to collect appropriate data; collect and record data; display data using tables, charts, or graphs; evaluate the accuracy of the data.

OUTCOME:

- Collects statistical data using either a census or a sample, and analyses data using measure of location and range.
- Formulates key questions to generate data for a problem of interest.
- Construct, read and interpret graphs, tables, charts and statistical information.
- Finding measures of location (mean, mode and median).
- Use measures of location (mean, mode, median) and range to analyse data that is displayed in a frequency distribution table, stem-and-leaf plot, or dot plot.

Standard 5 : DISCRETE MATHEMATICS - By the end of grade 10 students should :

Benchmark 1 : Formulate questions about a phenomenon of interest that can be answered with problem solving methods.

OUTCOME :

- Solve problems involving optimal solutions
- Perform and discuss problem-solving strategies.

Grade 11, 12 IB

Standard 1 : NUMBER and ALGEBRA - By the end of grade 12 IB students should be able to :

Benchmark 1 : Deal with functions and equations
OUTCOME:

- Apply routine use of addition, subtraction, multiplication and division using integers, decimals and fractions, including order of operations.
- Deal with simple positive exponents.
- Simplify of expressions involving roots (surds or radicals).
- Demonstrate an understanding of prime numbers and factors, including greatest common factors and least common multiples. Simple applications of ratio, percentage and proportion, linked to similarity. Definition and elementary treatment of absolute value (modulus), | a |.
- Round decimal approximations and significant figures, including appreciation of errors.
- Express numbers in standard form (scientific notation)
- Use concept and notation of sets, elements, universal (reference) set, empty (null) set, complement, subset, equality of sets, disjoint sets.
- Make operations on sets: union and intersection. Commutative, associative and distributive properties. Venn diagrams.
- Identify number systems: natural numbers, integers, rationals, irrationals and real numbers.
- Identify intervals on the real number line using set notation and using inequalities.
- Express the solution set of a linear inequality on the number line and in set notation.
- Apply the concept of a relation between the elements of one set and between the elements of one set and those of another set.
- Map of the elements of one set onto or into another, or the same, set. Illustration by means of tables, diagrams and graphs.
- Apply basic manipulation of simple algebraic expressions involving factorization and expansion.
- Rearrange, evaluate and combine of simple formulae.
- Solve equations and inequalities in one variable including cases with rational coefficients.
- Solve of simultaneous equations in two variables.

Benchmark 2 : Deal and manipulate numbers and sequences and series
OUTCOME:

- Solve questions about arithmetic sequences and series; sum of finite arithmetic series; geometric sequences and series; sum of finite and infinite geometric series.
- Use of the Sigma notation.
- Apply the laws of exponents

- Apply the laws of logarithms
- Use the binomial theorem in the expansion of $(a+b)^n$ where $n \in \mathbb{N}$
- Graph different types of functions and understanding their characteristics
- Determine the range, given the domain
- Use matrix notation like ; zero. Unit, determinant , inverse of square size 2 or 3 using technology

Benchmark 3 : Manipulate and investigate matrices and apply technology
OUTCOME:

- Perform basic operations with matrices
- Use matrices in solving linear equations
- use of a GDC to graph a variety of functions
- Investigate key features of graphs.
- Identify horizontal and vertical asymptotes.
- Solve equations graphically

Standard 2 : GEOMETRY

Benchmark 1 : manipulate the plane geometry and trigonometry
OUTCOME:

- Apply and use elementary geometry of the plane including the concepts of dimension for point, line, plane and space.
- Define the terms "arc", "sector", "chord", "tangent" and "segment" and find the area of sector and the arc length
- Use the relation between parallel and perpendicular lines,
- Understand the geometry of simple plane figures.
- Draw a linear function and find its gradient and y-intercept.
- Deal with right-angle trigonometry: Simple applications for solving triangles. Pythagoras' theorem and its converse.
- Use angle measurement in degrees & radians.
- Link between compass directions and bearings.
- Differentiate between congruence and similarity, including the concept of scale factor of an enlargement
- Apply and use the concepts of the circle, its centre and radius, area and circumference. .
- Find perimeter and area of plane figures such as: Triangles and quadrilaterals, including parallelograms, rhombuses, rectangles, squares, kites and trapeziums (trapezoids); compound shapes.

Benchmark 2 : manipulate coordinate geometry
OUTCOME:

- Find and identify in the Cartesian plane: ordered pairs , origin, axes, mid-point of a line segment and distance between two points in the Cartesian plane.
- Use simple geometric transformations: translation, reflection, rotation, and enlargement of functions .
- Find the equation of straight line given any two information about that line.
- Find the slope of the line

Standard 3 : HANDLING DATA

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Benchmark 1 : collection and presentation of data using suitable graphical methods

OUOTCOME:

- Describe the method of collection of raw data.
- Display of data in pictorial and diagrammatic forms such as: pie charts, pictograms, stem and leaf diagrams, bar graphs and line graphs.

Benchmark 2 : calculate and realize central tendency measurement and spread

OUTCOME:

- Make calculation of simple statistics from discrete data, including mean, median ,mode, quartiles , and standard deviation .
- Calculate quartiles and percentiles and discussing their uses

Benchmark 3 : calculate probability of simple and combined events including real life situations

OUTCOME:

- Calculate probabilities of simple events
- Calculate probabilities of mutually exclusive events and combined events
- Use tree diagrams to determine the probability of repeated events
- Make inferences about normal distributed data given the mean and the standard deviation
- Draw the line of best fit
- Calculate the conditional probability
- Use of Venn diagrams and tables of outcomes to solve problems.
- Understand the concept of discrete random variables and their probability distributions
- Calculate the expected value (mean), E(X) for discrete data.

Benchmark 4 : apply and understand the crucial role normal distribution and probability play in real life situations

OUTCOME:

- Identify the properties of the normal distribution.
- Standardize of normal variables.
- Appreciate that the standardized value (z) gives the number of standard deviations from the mean.
- Use of calculator (or tables) to find normal probabilities; the reverse process

Standard 4 : SHAPE and SPACE : TRIGONOMETRY

Benchmark 1: Understand and realize the trigonometric functions

OUTCOME:

- Define $\cos\theta$ and $\sin\theta$ in terms of the unit circle.
- Define $\tan\theta$ as:
  $\tan\theta = \sin\theta / \cos\theta$
- Prove and use the identity:
  $\cos^2\theta + \sin^2\theta = 1$

- Use the double angle formulae:
- $\sin 2\theta = 2\sin\theta\cos\theta$, $\cos 2\theta = \cos^2\theta - \sin^2\theta$,….
- Solve triangles by using the sine rule
- Solve triangles by using the cosine rule
- Appreciate of Pythagoras' theorem as a special case of the cosine rule.
- Solve trigonometric equations in a finite interval.
- Solve equations of the type $a\sin(b(x+c))=k$
- Solve equations leading to quadratic equations in, for example, sin x . and make the graphical interpretation of them

Benchmark 2 : Apply trig functions in real life problems like waves
OUTCOME:

- Understand and find the amplitude and the period of the sin or cos functions
- Find the domains ,ranges & periodic nature of the circular functions sin x, cos x and tan x
- Graph the circular functions sin x, cos x and tan x

Standard 5 : VECTORS

Benchmark 1 : realize and understand vectors as part of geometry and coordinate geometry
OUTCOME:

- Define vectors
- Give examples of vector quantities
- Write a vector in standard and Cartesian form
- Find the components of a vector
- Add & subtract vectors
- Apply vector addition and subtracting in real life problems in 2 & 3 dimensions
- Define the unit vector
- Multiply a vector by scalars
- Multiply vector by vector (scalar product only)
- Use the scalar product to find the angles between 2 vectors
- Represent a line as $\boldsymbol{r}=\boldsymbol{a}+t\boldsymbol{b}$.
- Find the angles between 2 lines
- Distinguish between coincident and parallel line

Standard 6 : **CALCULUS**

Benchmark 1 : manipulate and understand the derivative of a function and its meaning in geometry and physics

OUTCOME:

- Find the derivative of a sum and a real multiple of the functions
- Use the chain rule for composite functions.
- Use the product and quotient rules.
- Find the second derivative.
- Find the slope of tangent
- Find the equation of the tangent and the normal

- Apply the concept of derivatives on Kinematic problems involving displacement, , velocity, and acceleration.
- Apply the concept of derivatives on real life problems involving rate of change.
- Test for maximum or minimum using change of sign of the first derivative and using sign of the second derivative.
- Apply the concept of maximum and minimum in the following applications: profit, area, volume and plotting graphs

Benchmark 2 : manipulate and understand the integration process and its meaning in geometry and physics

OUTCOME:

- Apply the rules of integration on the following functions:
  - Polynomial function
  - Trigonometric functions
  - Exponential functions
- Integrate by substitution
- Find the areas under curves (between the curve and the *x*-axis)
- Find areas between curves
- Determine the volumes of revolution about the x- axis

Grade 11 & 12

Standard 1 : NUMBERS - By the end of grade 12 Math studies, students should be able to :

Benchmark 1 : Deal and manipulate numbers and sequences and series
OUTCOME:

- Identify the different forms of numbers: integers, fractions, decimals, exponents, standard form (scientific notation) and surds/radicals Number systems: set of positive integers and zero ($\mathbb{N}$), integers ($\mathbb{Z}$), rationals ($\mathbb{Q}$), irrationals ($\mathbb{Q}'$) and real numbers ($\mathbb{R}$)
- Apply routine use of addition, subtraction, multiplication and division using integers, decimals and fractions, including order of operations.
- Express numbers in standard form (scientific notation)
- Apply operations with numbers expressed in the standard form
- Use the SI (Système International) and other basic units of measurement: for example, gram (g), metre (m), second (s), litre (l), metre per second ($m.s^{-1}$), Celsius and Fahrenheit scales.

Benchmark 2 : Deal with functions and equations
OUTCOME:

- Solve questions about arithmetic sequences and series; sum of finite arithmetic series;
- geometric sequences and series; sum of finite and infinite geometric series.
- Use of the formulae for the n^{th} term and the sum of the first n terms.

Standard 2 : SET THEORY and LOGIC - By the end of grade 12 Math studies students should be able to :

Benchmark 1 : Manipulate sets and logic and the relation between them
OUTCOME:

- Show an understanding of basic concepts of set theory: subsets; intersection;
- Find the union, intersection and complement.
- Use Venn diagrams in simple applications.
- Define sample space, event, complementary event
- Using basic concepts of symbolic logic
- Use symbolic notation of propositions.
- Show an understanding of compound statements: implication, $\Rightarrow$; equivalence, $\Leftrightarrow$; negation, $\neg$; conjunction, $\wedge$; disjunction, $\vee$; exclusive disjunction, $\vee$.
- Translate between verbal statements, symbolic form and Venn diagrams.
- Knowledge and use of the "exclusive disjunction" and the distinction between it and "disjunction".
- Construct truth tables
- Use of truth tables to provide proofs for the properties of connectives; concepts of logical contradiction and tautology.
- Define: converse; inverse and contra positive.

Standard 3 : FUNCTIONS and ALGEBRA - By the end of grade 12 Math studies,students should be able to:

Benchmark1 : realize the concept and terminology of functions
OUTCOME:

- Show understanding of the concept of a function as a mapping.
- Find the domain and range of a function.
- Draw the graphs for the following functions :
  - Linear functions and find the slope and y- intercept
  - Quadratic function: Properties of symmetry; vertex; intercepts.
  - The exponential expression
  - The sine and cosine functions and explain their properties
- Define growth and decay and show an understanding of the basic concepts of asymptotic behaviour.
- Use of a GDC to sketch and analyse some simple, unfamiliar functions. Use of a GDC to solve equations involving simple combinations of some simple, unfamiliar functions.

Benchmark 2 : Solve equations in one or two unknowns
OUTCOME:

- Solve simple linear , quadratic equations using appropriate method
- Solve system of linear equations in two unknowns by algebraic methods
- Solve two equations from the graph

Standard 4 : GEOMETRY and TRIGONOMETRY - By the end of grade 12 Math studies, students should be able to:

Benchmark 1: Understand and realize the trigonometric functions
OUTCOME:

- Deal with right-angle trigonometry: Simple applications for solving triangles. Pythagoras' theorem and its converse.
- Find and identify in the Cartesian plane: ordered pairs , origin, axes, mid-point of a line segment and distance between two points in the Cartesian plane.
- Use of the ratios of sine, cosine and tangent.
- Solve triangles by using the sine rule
- Solve triangles by using the cosine rule
- Find the area of a triangle
- Understand the geometry of simple plane figures

Benchmark 2 : deal and manipulate the properties of geometric shapes and apply coordinate geometry
OUTCOME:

- Construction of labeled diagrams from verbal statements.

- Geometry of three-dimensional shapes: cuboid; prism; pyramid; cylinder; sphere; hemisphere; cone.
- Lengths of lines joining vertices with vertices, vertices with midpoints and midpoints with midpoints; sizes of angles between two lines and between lines and planes.

Standard 5 : HANDLING DATA - By the end of grade 12 Math studies, students should be able to

Benchmark 1 : collection and presentation of data using suitable graphical methods
OUTCOME:

- Describe the method of collection of raw data.
- Classify data as discrete or continuous.
- Representing simple discrete data using frequency tables or frequency polygons.
- Representing grouped discrete or continuous data: frequency tables; mid-interval values; upper and lower boundaries.
- Draw frequency histograms, stem and leaf diagrams (stem plots).
- Construct cumulative frequency tables for grouped discrete data and for grouped continuous data and draw cumulative frequency curves.

Benchmark 2 : calculate and realize central tendency and spread measurement.
OUTCOME:

- Make calculation of simple statistics from discrete data, including mean, median and mode.
- Calculate standard deviation
- Realize the difference of measures of central tendency and spread and their uses
- Calculate quartiles and percentiles and discussing their uses
- Apply and find the measures of dispersion: range; interquartile range and standard deviation

Benchmark 3 : Calculate probability of simple and compound events
OUTCOME:

- Calculate probabilities of simple events
- Calculate probabilities of mutually exclusive events and combined events
- Use tree diagrams to determine the probability of repeated events

Benchmark 4: Study the correlation between two variables
OUTCOME:

- Plot the line of best fit in scatter diagrams
- Define Bivariate data and use the concept of correlation.
- Use Pearson's product–moment correlation coefficient
- Show an understanding of the interpretation of positive, zero and negative correlations

Standard 6 : CALCULUS - By the end of grade 12 Math studies, students should be able to

Benchmark 1 : understand and find the derivative of simple functions and the applications
OUTCOME:

- Find the derivative of a sum and a real multiple of the functions
- Find the second derivative.
- Find the slope of tangent
- Find the equation of the tangent
- Test for maximum or minimum
- Use the change of sign of the first derivative for finding the decreasing and increasing of a function

Benchmark 2 : understand and find the integration of simple polynomials
OUTCOME:

- Fin the integration of polynomial and simple functions

TECHNOLOGY
Grade 7-12

Grade 7

Standard 1: INVESTIGATE

Benchmark 1: Students identify the problem to be solved.
OUTCOME: the students should be able to:

- Consider the problem within a wider context.
- Understand the concept of a design brief and adapt a given design brief to the problem or, with guidance, start to develop a design brief

Benchmark 2: Students develop the design brief.
OUTCOME: the students should be able to:

- Ask useful questions about the investigation.
- With guidance, identify appropriate sources of information and acknowledge these in a suitable form.
- With guidance, use different systematic methods to collect and select information, and to organize it logically
- Understand the importance of questioning the value of sources of information

Benchmark 3: Students formulate a design specification.
OUOTCOME: the students should be able to:

- Understand the concept and importance of the design specification and, with guidance, list the requirements that must be met by the product/solution
- Understand the importance of testing to determine the success of (or otherwise) of the product/solution and, with guidance, design some simple tests

Standard 2: PLAN

Benchmark 1: Students Design the product/solution.
OUTCOME: the students should be able to:

- Create designs and communicate them using different forms and conventions
- Compare the designs against the design specification
- Select, with guidance, on design over the others

Benchmark 2: Students plan the product/solution.
OUTCOME: the students should be able to:

- Describe, with guidance, the steps needed to create the product/solution
- Describe a plan to create, with guidance, the product/solution that makes effective use of resources and time
- With guidance, consider the effectiveness of the plan and make suitable modifications

Standard 3: CREATE

Benchmark 1: Students use appropriate techniques and equipment.
OUTCOME: the students should be able to:

- Use different techniques and equipment, with guidance
- Ensure a safe working environment for themselves and others

Benchmark 2: Students follow the plan.
OUTCOME: the students should be able to:

- Understand the importance of plans and, with guidance, follow the plan to produce the product/solution
- Understand the importance of monitoring progress and revisiting the plan and, with guidance, making necessary changes

Benchmark 3: Students create the product/solution.
OUTCOME: the students should be able to:

- Create, with some guidance, a product of appropriate quality

Standard 4: EVALUATE

Benchmark 1: Students evaluate the product solution
OUTCOME: the students should be able to:

- Carry out or follow tests, with guidance, to compare the product/solution against the design specification
- Consider the success (and/or failure) of the product/solution based on testing, their own views and the views of the intended user
- Consider, with guidance, the impact of the product/solution on individuals and/or society
- Explain, with guidance, how the product/solution could be improved

Benchmark 2: Students evaluate their use of the design cycle
OUTCOME: the students should be able to:

- Reflect on their performance at each stage of the design cycle.
- Identify and describe the parts they found easy and the parts that proved difficult. With guidance, suggest ways in which their performance could be improved.

Standard 5: ATTITUDES in TECHNOLOGY

Benchmark 1: Students work safely and take responsibility when working in technology as well as respect for and collaborate with others and their shared environment.
OUTCOME: the students should be able to:

- Carry out units of work in technology using materials and techniques safely and responsibly
- Work effectively as members of a team, collaborating, acknowledging and supporting the views of others
- Provide evidence of personal engagement with the subject (motivation, independence, general positive attitude) when working in technology.

Grade 8

Standard1: INVESTIGATE

Benchmark 1: Students identify the problem to be solved.
OUTCOME: the students should be able to:

- Consider the importance of the problem for life, society and/or the environment
- Outline a simple design brief

Benchmark 2: Students develop the design brief.
OUTCOME: the students should be able to:

- Ask relevant questions at the different stages of the investigation.
- Identify appropriate sources of information and acknowledge these using a recognized convention
- Collect and select information, organize it logically and, with guidance, begin to analyse it
- Consider with guidance, the value of sources of information

Benchmark 3: Students formulate a design specification.
OUTCOME: the students should be able to:

- List, with limited guidance, the specific requirements that must be met by the product/solution
- Design, with limited guidance, tests to evaluate the product/solution against the design specification.

Standard 2: PLAN

Benchmark 1: Students Design the product/solution.
OUTCOME: the students should be able to:

- Generate a range of designs that attempt to meet the design specification
- Compare the designs against the design specification and identify the pros and cons of each design.
- Select one design and explain its choice

Benchmark 2: Students plan the product/solution.
OUTCOME: the students should be able to:

- Devise, with guidance, a series of logical steps to create the product/solution
- Devise a plan to create the product/solution that makes effective use of resources and time
- Consider the plan and explain the need for any modifications to the design.

Standard 3: CREATE

Benchmark 1: Students use appropriate techniques and equipment.
OUTCOME: the students should be able to:

- Use appropriate techniques and equipment competently with guidance
- Ensure a safe working environment for themselves and others

Benchmark 2: Students follow the plan.
OUTCOME: the students should be able to:

- Follow the plan to produce the product/solution with guidance
- Review the plan and explain any changes to the plan (when necessary)

Benchmark 3: Students create the product/solution
OUTCOME: the students should be able to:

- Create a product/solution of appropriate quality with guidance

Standard 4: EVALUATE

Benchmark 1: Students evaluate the product solution
OUTCOME: the students should be able to:

- Carry out tests to compare the product/solution against the design specification
- Consider the success (and or failure) of the product/solution in an objective manner based on testing their own views and the views of the intended user.
- Consider the impact of the product/solution on individuals and/or society
- Explain how the product/solution could be improved with minimal guidance

Benchmark 2: Students evaluate their use of the design cycle
OUTCOME: the students should be able to:

- Consider their performance at each stage of the design cycle.
- Identify the parts they found difficult and suggest ways in which their performance could be improved

Standard 5: ATTITUDES IN TECHNOLOGY

Benchmark 1: Students work safely and take responsibility when working in technology as well as respect and collaborate with others and their shared environment.
OUTCOME: the students should be able to:

- Carry out units of work in technology using materials and techniques safely and responsibly
- Work effectively as members of a team, collaborating, acknowledging and supporting the views of others
- Provide evidence of personal engagement with the subject (motivation, independence, general positive attitude) when working in technology.

Grade 9

Standard 1: INVESTIGATE

Benchmark 1: Students identify the problem to be solved.
OOUTCOME: the students should be able to:

- Discover the importance of the problem for life, society and/or the environment
- Outline a more complicated design brief

Benchmark 2: Students develop the design brief.
OUTCOME: the students should be able to:

- Evaluate relevant questions at the different stages of the investigation.
- Evaluate appropriate sources of information and acknowledge these using a recognized convention
- Collect and select information, organize it logically and begin to analyse it
- Consider the value of sources of information

Benchmark 3: Students formulate a design specification
OUTCOME: the students should be able to:

- List, the specific requirements that must be met by the product/solution
- Design, tests to evaluate the product/solution against the design specification.

Standard 2: PLAN

Benchmark 1: Students Design the product/solution.
OUTCOME: the students should be able to:

- Generate a range of designs that meet the design specification
- Compare the designs against the design specification and explain the pros and cons of each design.
- Select one design and evaluate its choice

Benchmark 2: **Students plan the product/solution.**
OUTCOME: the students should be able to:

- Devise a series of logical steps to create the product/solution
- Construct a plan to create, with guidance, the product/solution that makes effective use of resources and time
- Analyse the plan and explain the need for any modifications to the design

Standard 3: CREATE

Benchmark1: Students use appropriate techniques and equipment.
OUTCOME: the students should be able to:

- Use appropriate techniques and equipment competently with minimal guidance
- Ensure a safe working environment for themselves and others

Benchmark 2: Students follow the plan.
OUTCOME: the students should be able to:

- Follow the plan to produce the product/solution with minimal guidance
- Analyse the plan and explain any changes to the plan (when necessary)

Benchmark 3: Students create the product/solution.
OOUTCOME: the students should be able to:

- Create a product/solution of appropriate quality with minimal guidance

Standard 4: EVALUATE

Benchmark 1: Students evaluate the product solution
OUTCOME: the students should be able to:

- Carry out tests to analyse the product/solution against the design specification
- Analyse the success (and or failure) of the product/solution in an objective manner based on testing their own views and the views of the intended user
- Analyse the impact of the product/solution on individuals and/or society
- Explain how the product/solution could be improved

Benchmark 2: Students evaluate their use of the design cycle
OUTCOME: the students should be able to:

- Analyse their performance at each stage of the design cycle.
- Describe the parts they found difficult and suggest ways in which their performance could be improved

Standard 5: ATTITUDES IN TECHNOLOGY

Benchmark 1: **Students work safely and take responsibility when working in technology as well as respect for and collaborate with others and their shared environment.**
OUTCOME: the students should be able to:

- Carry out units of work in technology using materials and techniques safely and responsibly
- Work effectively as members of a team, collaborating, acknowledging and supporting the views of others
- Provide evidence of personal engagement with the subject (motivation, independence, general positive attitude) when working in technology.

Grade 10

Standard 1: INVESTIGATE

Benchmark 1: Students identify the problem to be solved.
OUTCOME: the students should be able to:

- Evaluate the importance of the problem for life, society and/or the environment
- Outline the design brief

Benchmark 2: Students develop the design brief.
OUTCOME: the students should be able to:

- Formulate and discuss appropriate questions that guide the investigation.
- Identify and acknowledge a range of appropriate sources of information
- Collect, analyse, select, organize and evaluate information.
- Evaluate the sources of information.

Benchmark 3: **Students formulate a design specification.**
OUOTCOME: the students should be able to:

- List the specific requirements that must be met by the product/solution
- Design tests to evaluate the product/solution against the design specification

Standard 2: PLAN

Benchmark1: Students Design the product/solution.
OUTCOME: the students should be able to:

- Generate several feasible designs that meet the design specification
- Evaluate the designs against the design specification.
- Select one design and justify its choice

Benchmark 2: Students plan the product/solution.
OUTCOME: the students should be able to:

- Construct a plan to create the product/solution that has a series of logical steps
- Construct a plan to create the product/solution that makes effective use of resources and time
- Evaluate the plan and justify any modifications to the design

Standard 3: CREATE

Benchmark1: Students use appropriate techniques and equipment.
OUTCOME: the students should be able to:

- Use a range of appropriate techniques and equipment competently
- Ensure a safe working environment for themselves and others

Benchmark 2: Students follow the plan.
Learning Outcomes: the students should be able to:

- Follow the plan to produce the product/solution
- Evaluate the plan and justify any changes to the plan (when necessary)

Benchmark 3: Students create the product/solution.
OUTCOME: the students should be able to:

- Create a product/solution of appropriate quality

Standard 4: EVALUATE

Benchmark 1: Students evaluate the product solution
OUTCOME: the students should be able to:

- Carry out tests to evaluate the product/solution against the design specification
- Evaluate the success (and or failure) of the product/solution in an objective manner based on testing their own views and the views of the intended user
- Evaluate the impact of the product/solution on individuals and/or society
- Evaluate and justify how the product/solution could be improved

Benchmark 2: Students evaluate their use of the design cycle
OUTCOME: the students should be able to:

- Evaluate their performance at each stage of the design cycle.
- Suggest ways in which their performance could be improved.

Standard 5: ATTITUDES IN TECHNOLOGY

Benchmark 1: Students work safely and take responsibility when working in technology as well as respect for and collaborate with others and their shared environment.
OUTCOME: the students should be able to:

- Carry out units of work in technology using materials and techniques safely and responsibly
- Work effectively as members of a team, collaborating, acknowledging and supporting the views of others
- Provide evidence of personal engagement with the subject (motivation, independence, general positive attitude) when working in technology.

Resources

- MYP Technology – Subject Guide – 2006

MYP ARTS / MUSIC
Grade 7-10

GRADE 7

Standard 1: Build Knowledge and Understanding of the arts and artistic processes.

Benchmark 1: Demonstrate an awareness of Music in relation to ***some*** of the contexts that influence their current work

OUTCOME:

- understand the use of the clefs
- understand how to apply notes in the correct positions
- understand how to read & write music

Benchmark 2: Use ***some basic language***, and have a simple understanding of ***some*** of the concepts and processes that support their current work

OUTCOME:

- understand how to read & write music
- understand how to write listened music .

Standard 2: **Practical application of skills to create art.**

Benchmark 1: use ideas and artistic conventions to create, and/or present art

OUTCOME:

- Learning the basic skills of using the instruments
- Present the musical peace to audience

Benchmark 2 learn skills and develop the techniques and processes needed to create, and/or present art, with the teacher's guidance.

OUTCOME:

- Learning the basic skills of using the instruments
- Present the musical peace to audience

Standard 3: Reflection and evaluation in relation to own work.

Benchmark 1: describe the progress they have made so far and identify areas that have been particularly easy or challenging

OUTCOME:

- Learn how to use the DB
- Writing reflections in basic way

Benchmark 2: evaluate their work by identifying strengths and weaknesses in their work

OUTCOME:

- 1 Learn how to use the DB
- Using feedbacks from the teacher, peers & parent to identify strengths & weaknesses

Benchmark 3: receive feedback constructively

OUTCOME:

- Using feedbacks from the teacher, peers & parent to identify strengths & weaknesses

- Having forms of reflections to be filed up by others

Standard 4: Personal Engagement

Benchmark 1 show commitment in using artistic processes
OUTCOME:

- Being in class on time
- Using time wisely
- Practise playing music when ever time is provided
- Provide all the materials needed to write, read & play music

Benchmark 2: demonstrate curiosity, self motivation, initiative and a willingness to take informed risks
OUTCOME:

- Try to create there own musical peace
- Getting involve in desiccation about music

Benchmark 3: support, encourage and work with their peers in a positive way
OUTCOME:

- Playing music in groups
- Helping their peers reading the hard music sheets

Grade 8

Standard 1: Build Knowledge and Understanding of the arts and artistic processes.

Benchmark 1: demonstrate knowledge and understanding of Music in relation to ***some aspects*** of societal, cultural, historical or personal contexts

OUTCOME:

- playing music using all kind of instruments available
- presentation about Beethoven Hayden Mozart & how music effect there life's

Benchmark 2: demonstrate knowledge and understanding of ***some elements*** including some specialized language, concepts and processes

OUTCOME:

- the use of the Bass clef
- the use of the treble clef
- the use of the grand staff

Standard 2: Practical application of skills to create music .

Benchmark 1: articulate an idea, theme or personal interpretation to a point of realization

OUTCOME:

- Using the instruments to create a theme
- Composing 8 to 12 measures theme and build it up to a musical peace

Benchmark 2: develop skills and apply the techniques and processes involved in creating, and/or presenting art

OUTCOME:

- Using 20 sight reading exercises for piano by Carl Czerny

Standard 3: Reflection and evaluation in relation to own work.

Benchmark 1: give an informed description of the progress they have made so far and identify strategies to develop and improve their artistic processes.

OUTCOME:

- Using there DB to write there reflection in deferent stages
- Using there reflection to make their work presented in a better way

Benchmark 2: evaluate their work

OUTCOME:

- Using there DB to write there reflection in deferent stages
- Using there reflection to make their work presented in a better way

Benchmark 3: consider feedback when identifying strategies to develop and improve

OUTCOME:

- Reflecting in their peer work
- Creating posters
- Present their work

Standard 4: Personal Engagement

Benchmark 1: show commitment in developing their own artistic processes

OUTCOME:

- Being in class on time
- Using time wisely
- Practise playing music when ever time is provided
- Provide all the materials needed to write, read & play music

Benchmark 2: demonstrate curiosity, self motivation, initiative and a willingness to take informed risks

OUTCOME:

- Try to create there own musical peace
- Getting involve in desiccation about music

Benchmark 3: support, encourage and work with their peers in a positive way

OUTCOME:

- Playing music in groups
- Helping their peers reading the hard music sheets

Grade 9

Standard 1: Build Knowledge and Understanding of the arts and its artistic processes.

Benchmark 1: demonstrate knowledge and understanding of Music in relation to ***some aspects*** of societal, cultural, historical or personal contexts

OUTCOME:

- understand the way of using beats in deferent cultural
- analyzing the scales & instruments used in deferent kinds of music

Benchmark 2: demonstrate knowledge and understanding of ***some elements*** including some specialized language, concepts and processes

OUTCOME:

- reading & writing music
- exploring the piano

Benchmark 3: communicate ***some level of analysis*** of music in context of their own expression of that work

OUTCOME:

- reading & writing music
- using deferent kinds of clefs to write & read music

Standard 2: Practical application of skills to create art.

Benchmark 1: articulate an idea, theme or personal interpretation to a point of realization, to express and communicate artistic intentions

OUTCOME:

- Playing deffrent peaces of music (fur Elise, Moonlight, two part invention ,,, etc)

Benchmark 2: Increase skills, techniques and processes to create, and or present their art

OUTCOME:

- Using Czerny exercises to increase skills & techniques

Standard 3: Reflection and evaluation in relation to own work.

Benchmark 1: Begin to engage in critical reflection of their own artistic development and processes at different stages of their work

OUTCOME:

- Using there DB to write there reflection in deferent stages
- Using there reflection to make their work presented in a better way

Benchmark 2: evaluate their work

OUTCOME:

- Using there DB to write there reflection in deferent stages
- Using there reflection to make their work presented in a better way

Benchmark 3: use feedback to inform their own artistic development and processes

OUTCOME:

- Reflecting in their peer work
- Creating posters
- Present their work

Standard 4: Personal Engagement

Benchmark 1: show commitment in using artistic processes
OUTCOME:

- Being in class on time
- Using time wisely
- Practise playing music when ever time is provided
- Provide all the materials needed to write, read & play music

Benchmark 2: demonstrate curiosity, self motivation, initiative and a willingness to take informed risks
OUTCOME:

- Try to create there own musical peace
- Getting involve in desiccation about music

Benchmark 3: support, encourage and work with their peers in a positive way
OUTCOME:

- Playing music in groups
- Helping their peers reading the hard music sheets

Grade 10

Standard 1: Build Knowledge and Understanding of the arts and its artistic processes.

Benchmark 1: Demonstrate knowledge and understanding of the art form studied in relation to societal, cultural, historical and personal contexts.

OUTCOME:

- Study a selected historical period or style of music

Benchmark 2: Demonstrate knowledge and understanding of the elements of music including specialized language, concepts and processes.

OUTCOME:

- Using the musical notes to communicate

Benchmark 3: Communicate a critical understanding of the art form studied in the context of their own artwork.

OUTCOME:

- writing their own musical piece .

Standard 2: Practical application of skills to create art.

Benchmark 1: develop an idea, theme or personal interpretation to a point of realization, expressing and communicating their artistic intentions

OUTCOME:

- using the instruments to play in groups (bands) develop a theme to compose a piece of music

Benchmark 2: apply skills, techniques and processes to create, and/or present art.

OUTCOME:

- Singing vocal exercises
- Hanon piano exercises
- using the instruments to play in groups (bands) develop a theme to compose a piece of music

Standard 3: Reflection and evaluation in relation to own work.

Benchmark 1: reflect critically on their own artistic development and processes at different stages of their work

OUTCOME:

- Using there DB to write there reflection in deferent stages
- Using there reflection to make their work presented in a better way

Benchmark 2: evaluate their work

OUTCOME:

- Using there DB to write there reflection in deferent stages
- Using there reflection to make their work presented in a better way

Benchmark 3: use feedback to inform their own artistic development and processes
OUTCOME:

- Reflecting in their peer work
- Creating posters
- Present their work

Standard 4: Personal Engagement

Benchmark 1: show commitment in using their own artistic processes
OUTCOME:

- Being in class on time
- Using time wisely
- Practise playing music when ever time is provided
- Provide all the materials needed to write, read & play music

Benchmark 2: demonstrate curiosity, self motivation, initiative and a willingness to take informed risks
OUTCOME:

- Try to create there own musical peace
- Getting involve in desiccation about music

Benchmark 3: support, encourage and work with their peers in a positive way
OUTCOME:

- Playing music in groups
- Helping their peers reading the hard music sheets

Resources

1. http://www.michigan.gov/mde/0,1607,7-140-28753_33232---,00.html
2. http://www.education.com/reference/article/Ref_State_Tennessee/
3. http://www.cde.ca.gov/be/st/ss/

Visual Arts - MYP
Grade 7-10

Grade 7

Standard 1: Build Knowledge and Understanding of the arts and artistic processes.

Benchmark 1: Demonstrate knowledge and understanding of visual art in relation to some aspects of societal, cultural, historical or personal contexts

OUTCOMES:

- can place artworks within their historical contexts of time and place
- can analyze a studied artwork by describing and interpreting methods
- understand the idea of an art movement and art period
- can understand how art movements or art periods or even individual art pieces can be influenced by the world around them

Benchmark 2: Demonstrate knowledge and understanding of some elements including some specialized language, concepts and processes

OUTCOME:

- can interpret the meaning of an artwork by looking at the visual clues within the work.
- define a some concepts directly related to the art elements and principles,
- can communicate basic knowledge of artwork
- use basic artistic vocabulary in written format

Benchmark 3: Demonstrate an informed opinion of visual art in the context of their own art work

OUTCOME:

- can define some concepts directly related to the art elements and principles.
- Can communicate their ideas through direct observation, personal experiences, and imagination
- Can understand similarities and differences among the characteristics of artworks

Standard 2: Practical application of skills to create art.

Benchmark 1: Articulate an idea, theme or personal interpretation to a point of realization

OUTCOME:

- Can use variety of media to convey ideas, emotions and experiences
- create artworks integrating themes found through direct observation, personal experiences, and imagination;
- apply design skills to communicate effectively ideas and thoughts in everyday life
- select and use appropriate art materials and tools for making art

Benchmark 2: Develop skills and apply the techniques and processes involved in creating, and/or presenting art

OUTCOME:

- can manipulate different art media and techniques
- develop technical skills across different media and different art forms
- apply design skills to communicate effectively ideas and thoughts in everyday life
- select appropriate art materials and tools to interpret subjects or themes when producing drawings, paintings, prints, sculptures, ceramics, fiber art, photography/film making, and electronic media-generated art, traditionally and experimentally.

Standard 3: Reflection and evaluation in relation to own work.

Benchmark 1: Give an informed description of the progress they have made so far and identify strategies to develop and improve their artistic processes

OUTCOME:

- analyze with the teacher or peers personal artworks in progress
- Record reflections and evaluations in IWB (Investigation Work Books)

Benchmark 2: Evaluate their work

OUTCOME:

- analyze with the teacher or peers personal artworks in progress,
- use critical attributes, and participate in individual and group critiques
- Record reflections and evaluations in IWB (Investigation Work Books)

Benchmark 3: Consider feedback when identifying strategies to develop and improve

OUTCOME:

- use critical attributes, and participate in individual and group critiques
- can discuss and analyze reasons for certain visual effects or images
- can accept opinions from others and make sound judgments to fix problems
- Record reflections and evaluations in IWB (Investigation Work Books)

Standard 4: Personal Engagement

Benchmark 1: Show commitment in using their own artistic processes

OUTCOME:

- Willing to try new ways of doing things
- Can manage, with help, the processes needed to communicate ideas
- Can manage, with help, the processes needed to produce artwork
- Can make decisions about future directions in personal work

Benchmark 2: Demonstrate curiosity, self motivation, initiative and a willingness to take informed risks

OUTCOME:

- Can take risks with experimentation of new media and tools
- select and critique artworks in progress,
- make decisions about future directions in personal work

- select and critique original artworks, portfolios of peers and exhibitions of peers

Benchmark 3: Support, encourage and work with their peers in a positive way
OUTCOME:

- can be open-minded about the opinions of others
- can work well with others
- can appreciate work done by others
- select and critique original artworks and portfolios of peers and exhibitions of peers

Benchmark 4: Be receptive to art practices and artworks from various cultures, including their own.
OUTCOME:

- can be open-minded about practices and ideas of others
- select and critique artworks in progress,
- select and critique original artworks, portfolios of peers and exhibitions of peers

Grade 8

Standard 1: Build Knowledge and Understanding of the arts and artistic processes.

Benchmark 1: Demonstrate knowledge and understanding of visual art in relation to some aspects of societal, cultural, historical or personal contexts

OUTCOME:

- can place artworks within their historical contexts
- understand how art movements and art periods are influences by what has gone before
- create artworks integrating themes found through direct observation, personal experiences, and imagination
- identify cultural ideas expressed in artworks relating to social, political, and environmental themes

Benchmark 2: Demonstrate knowledge and understanding of some elements including some specialized language, concepts and processes

OUTCOME:

- define a variety of concepts directly related to the art elements and principles,
- can communicate knowledge of artwork
- use artistic vocabulary accurately in different written formats and presentations.

Benchmark 3: Demonstrate an informed opinion of visual art in the context of their own art work

OUTCOME:

- define a variety of concepts directly related to the art elements and principles.
- Can communicate their ideas through direct observation, personal experiences, and imagination
- Can define and compare similarities and differences among the characteristics of artworks

Standard 2: Practical application of skills to create art.

Benchmark 1: Articulate an idea, theme or personal interpretation to a point of realization

OUTCOME:

- Can use variety of media to convey ideas, emotions and experiences
- create artworks integrating themes found through direct observation, personal experiences, and imagination;
- apply design skills to communicate effectively ideas and thoughts in everyday life
- select and use appropriate art materials and tools for making art

Benchmark 2: Develop skills and apply the techniques and processes involved in creating, and/or presenting art

OUTCOME:

- can manipulate different art media and techniques
- develop technical skills across different media and different art forms
- apply design skills to communicate effectively ideas and thoughts in everyday life
- select appropriate art materials and tools to interpret subjects or themes when producing drawings, paintings, prints, sculptures, ceramics, fiber art, photography/film making, and electronic media-generated art, traditionally and experimentally.

Standard 3: Reflection and evaluation in relation to own work.

Benchmark 1: Give an informed description of the progress they have made so far and identify strategies to develop and improve their artistic processes

OUTCOME:

- analyze with the teacher or peers personal artworks in progress
- Record reflections and evaluations in IWB (Investigation Work Books)

Benchmark 2: Evaluate their work

OUTCOME:

- analyze with the teacher or peers personal artworks in progress,
- use critical attributes, and participate in individual and group critiques
- Record reflections and evaluations in IWB (Investigation Work Books)

Benchmark 3: Consider feedback when identifying strategies to develop and improve

OUTCOME:

- use critical attributes, and participate in individual and group critiques
- can discuss and analyze reasons for certain visual effects or images
- can accept opinions from others and make sound judgments to fix problems
- Record reflections and evaluations in IWB (Investigation Work Books)

Standard 4: Personal Engagement

Benchmark 1: Show commitment in using their own artistic processes

OUTCOME:

- Willing to try new ways of doing things
- Can manage, with help, the processes needed to communicate ideas
- Can manage, with help, the processes needed to produce artwork
- Can make decisions about future directions in personal work

Benchmark 2 Demonstrate curiosity, self motivation, initiative and a willingness to take informed risks

OUTCOME:

- Can take risks with experimentation of new media and tools
- select and critique artworks in progress,
- make decisions about future directions in personal work
- select and critique original artworks, portfolios of peers and exhibitions of peers

Benchmark 3: Support, encourage and work with their peers in a positive way
OUTCOME:

- can be open-minded about the opinions of others
- can work well with others
- can appreciate work done by others
- select and critique original artworks and portfolios of peers and exhibitions of peers

Benchmark 4: Be receptive to art practices and artworks from various cultures, including their own.
OUTCOME:

- can be open-minded about practices and ideas of others
- select and critique artworks in progress,
- select and critique original artworks, portfolios of peers and exhibitions of peers

Grade 9

Standard 1: Build Knowledge and Understanding of the arts and its artistic processes.

Benchmark 1: Demonstrate knowledge and understanding of visual art in relation to some aspects of societal, cultural, historical or personal contexts

OUTCOME:

- compare and contrast historical and contemporary styles, identifying general themes and trends;
- describe general characteristics in artworks from a variety of cultures;
- interpret, evaluate, and justify artistic decisions in personal artworks
- can analyze and interpret visual media using the context and social symbols of the work

Benchmark 2: Demonstrate knowledge and understanding of some elements including some specialized language, concepts and processes

OUTCOME:

- compare and contrast the use of art elements (color, texture, form, line, space, value) and art principles (emphasis, pattern, rhythm, balance, proportion, unity) in personal artworks and those of others,
- use artistic vocabulary accurately.
- describe general characteristics in artworks

Benchmark 3: Communicate some level of analysis of visual art in context of their own expression of that work

OUTCOME:

- compare and contrast the use of art elements (color, texture, form, line, space, value) and art principles (emphasis, pattern, rhythm, balance, proportion, unity) in personal artworks and those of others
- interpret, evaluate, and justify artistic decisions in personal artworks

Standard 2: Practical application of skills to create art.

Benchmark 1: Articulate an idea, theme or personal interpretation to a point of realization, to express and communicate artistic intentions

OUTCOMES

- create visual solutions by elaborating on direct observation, experiences, and imagination;
- create designs for practical applications

Benchmark 2: Increase skills, techniques and processes to create, and or present their art

OUTCOME:

- create visual solutions by elaborating on direct observation, experiences, and imagination;
- create designs for practical applications; and
- demonstrate effective use of art media and tools in design, drawing, painting, printmaking, and sculpture.

Standard 3: Reflection and evaluation in relation to own work.

Benchmark 1: Begin to engage in critical reflection of their own artistic development and processes at different stages of their work

OUTCOME:

- Analyze and compare relationships such as function and meaning in personal artworks
- Interpret artistic decisions in personal artwork
- Evaluate artistic decisions in personal artwork
- Justify artistic decisions in personal artwork

Benchmark 2: Evaluate their work

OUTCOME:

- Analyze and compare relationships such as function and meaning in personal artworks
- Evaluate artistic decisions in personal artwork
- Justify artistic decisions in personal artwork
- Record reflections and evaluations in IWB (Investigation Work Books)

Benchmark 3 Use feedback to inform their own artistic development and processes

OUTCOME:

- Justify artistic decisions in personal artwork
- Can clearly outline ways to improve work
- Can consistently evaluate their work in relation to their expectations

Standard 4: Personal Engagement

Benchmark 1: Show commitment in using their own artistic processes

OUTCOME:

- Can take risks with experimentation of new techniques, media and tools
- make decisions about future directions in personal work

Benchmark 2: Demonstrate curiosity, self motivation, initiative and a willingness to take informed risks

OUTCOME:

- Can take risks with experimentation of new media and tools
- select and critique artworks in progress,
- make decisions about future directions in personal work
- select and critique original artworks, portfolios of peers and exhibitions of peers

Benchmark 3: Support, encourage and work with their peers in a positive way

OUTCOME:

- select and critique original artworks, portfolios of peers and exhibitions of peers

Benchmark 4: Be receptive to art practices and artworks from various cultures, including their own.

OUTCOME:

- select and critique artworks in progress,
- select and critique original artworks, portfolios of peers and exhibitions of peers

Grade 10

Standard 1: Build Knowledge and Understanding of the arts and its artistic processes.

Benchmark 1: Demonstrate knowledge and understanding of the art form studied in relation to societal, cultural, historical and personal contexts.

OUTCOME:

- can analyze and interpret visual media using the context and social symbols of the work
- Compare suitability of art materials and processes to express specific ideas relating to visual themes,
- use precise artistic vocabulary.
- study a selected historical period or style of art;
- analyze specific characteristics of artworks in various cultures;

Benchmark 2: Demonstrate knowledge and understanding of the elements of VA including specialized language, concepts and processes.

OUTCOME:

- Compare suitability of art materials and processes to express specific ideas relating to visual themes,
- use precise and comprehensive artistic vocabulary.

Benchmark 3: Communicate a critical understanding of the art form studied in the context of their own artwork.

OUTCOME:

- Compare suitability of art materials and processes to express specific ideas relating to visual themes, using precise art vocabulary.
- analyze specific characteristics of artworks in various cultures
- can attribute a range of subjects, symbols and ideas in artworks to their time and place

Standard 2: Practical application of skills to create art.

Benchmark 1: develop an idea, theme or personal interpretation to a point of realization, expressing and communicating their artistic intentions

OUTCOME:

- formulate multiple solutions to expand personal themes that demonstrate intent
- Initiate the process of developing ideas to be explored
- apply design skills in creating practical applications, clarifying presentations, and defining choices made by consumers;
- select from a variety of art media and tools to communicate specific ideas in drawing, painting, printmaking, sculpture, ceramics, fiber art, jewelry, photography/filmmaking, and electronic media-generated art.

Benchmark 2: Apply skills, techniques and processes to create, and/or present art.

OUTCOME:

- formulate multiple solutions to expand personal themes that demonstrate intent

- Take informed risks with their work
- apply design skills in creating practical applications, clarifying presentations, and defining choices made by consumers;
- select from a variety of art media and tools to communicate specific ideas in drawing, painting, printmaking, sculpture, ceramics, fiber art, jewelry, photography/filmmaking, and electronic media-generated art.
- Reflect and improve on the developmental process to meet expectations of the final piece

Standard 3: Reflection and evaluation in relation to own work.

Benchmark 1: Reflect critically on their own artistic development and processes at different stages of their work

OUTCOME:

- Analyze and compare relationships such as function and meaning in personal artworks
- Justify artistic decisions in personal artwork
- Reflect and improve on the developmental process to meet expectations of the final piece
- Can identify intentions of those who make art

Benchmark 2: Evaluate their work

OUTCOME:

- Evaluate artistic decisions in personal artwork
- Justify artistic decisions in personal artwork
- Record reflections and evaluations in IWB (Investigation Work Books)

Benchmark 3: Use feedback to inform their own artistic development and processes

OUTCOME:

- Analyze and compare relationships such as function and meaning in personal artworks
- Justify artistic decisions in personal artwork
- Can clearly outline ways to improve work
- Can consistently evaluate their work in relation to their expectations
- Record reflections and evaluations in IWB (Investigation Work Books)

Standard 4: Personal Engagement

Benchmark 1: Show commitment in using their own artistic processes

OUTCOME:

- Can take risks with experimentation of new techniques, media and tools
- make decisions about future directions in personal work

Benchmark 2: Demonstrate curiosity, self motivation, initiative and a willingness to take informed risks

OUTCOME:

- Can take risks with experimentation of new techniques, media and tools

- select and critique artworks in progress,
- make decisions about future directions in personal work
- select and critique original artworks, portfolios of peers and exhibitions of peers

Benchmark 3: Support, encourage and work with their peers in a positive way
OUTCOME:

- select and critique original artworks, portfolios of peers and exhibitions of peers

Benchmark 4: Be receptive to art practices and artworks from various cultures, including their own.
OUTCOME:

- select and critique artworks in progress,
- select and critique original artworks, portfolios of peers and exhibitions of peers

Resources

1. http://minnie.hartlandschools.us/users/kirsteneichhorn/weblog/cc0c2/Michigan_Department_of_Education_Arts_Content_Standards_and_Benchmarks_for_Visual_Arts.html
2. http://www.education.com/reference/article/Ref_State_Tennessee/
http://www.cde.ca.gov/be/st/s

Visual Arts
Diploma
Grade 11 & 12

Diploma Programme Arts
Grade 11 and 12

Standard 1: Build confidence in responding visually and creatively to personal and cultural experiences

Benchmark 1: Produce personally relevant works of art that reveal evidence of exploration of ideas
OUTCOME:

- can analyze visual media using the context and social symbols of the work
- can interpret visual media using the context and social symbols of the work
- Compare suitability of art materials and processes to express specific ideas relating to visual themes

Benchmark 2: Produce personally relevant works of art that reflect evidence of cultural awareness
OUTCOME:

- can analyze visual media using the context and social symbols of the work
- can interpret visual media using the context and social symbols of the work
- use precise and comprehensive artistic vocabulary.
- Can make comparisons between various art pieces across time and cultures

Benchmark 3: Produce personally relevant works of art that reflect evidence of historical awareness
OUTCOME:

- Know of historical and cultural contexts regarding characteristics and purposes of works of art
- Can make comparisons between various art pieces across time and cultures
- use precise and comprehensive artistic vocabulary.

Standard 2: Develop skills in, and sensitivity to the creation of artworks that reflect their active and individual involvement.

Benchmark 1: Develop and demonstrate technical competence
OUTCOME:

- Initiate the process of developing ideas to be explored
- apply design skills in creating practical applications, clarifying presentations, and defining choices made by consumers;
- select from a variety of art media and tools to communicate specific ideas in drawing, painting, printmaking, sculpture, ceramics, fiber art, jewelry, photography/filmmaking, and electronic media-generated art.

Benchmark 2: Develop and demonstrate artistic qualities that challenge and extend personal Boundaries
OUTCOME:

- formulate multiple solutions to expand personal themes that demonstrate intent
- Take informed risks with their work

- Reflect and improve on the developmental process to meet expectations of the final piece

Benchmark 3: Develop and demonstrate artistic qualities that challenge and extend self-direction.
OUTCOME:

- Take informed risks with their work
- formulate multiple solutions to expand personal themes that demonstrate intent
- can consistently evaluate their own art work in relation to their own expectations

Standard 3: Take responsibility for the direction of their learning through the acquisition of effective working practices

Benchmark 1: Develop independent ideas and practices
OUTCOME:

- Explore and develop ideas and techniques for studio work
- Do integrated contextual studies
- Explore and develop first-hand observations
- Analyze and compare relationships such as function and meaning in personal artworks
- Justify artistic decisions in personal artwork
- Reflect and improve on the developmental process to meet expectations of the final piece

Benchmark 2: Present independent ideas and practices
OUTCOME:

- Analyze and compare relationships such as function and meaning in personal artworks
- Justify artistic decisions in personal artwork
- Reflect and improve on the developmental process to meet expectations of the final piece

Benchmark 3: Evaluate their work
OUTCOME:

- can consistently evaluate their own art work in relation to their own expectations
- Evaluate artistic decisions in personal artwork
- Justify artistic decisions in personal artwork
- Use feedback to inform their own artistic development and processes

Benchmark 4: Explain the connections between independent ideas and practices and the work of others.
OUTCOME:

- Analyze and compare relationships such as function and meaning in personal artworks
- Justify artistic decisions in personal artwork
- Can consistently evaluate their work in relation to their expectations
- Maintain a close relationship between investigation and creative process

Standard 4: Develop skills in and sensitivity to the creation of works that reflect active and individual involvement.

Benchmark 1: Show commitment in using their own artistic processes

OUTCOME:

- Can take risks with experimentation of new techniques, media and tools
- make decisions about future directions in personal work

Benchmark 2: Demonstrate curiosity, self motivation, initiative and a willingness to take informed risks

OUTCOME:

- Can take risks with experimentation of new techniques, media and tools
- select and critique artworks in progress,
- make decisions about future directions in personal work
- select and critique original artworks, portfolios of peers and exhibitions of peers

Benchmark 3: Be receptive to art practices and artworks from various cultures, including their own.

OUTCOME:

- have a willingness to experiment with new materials
- have a willingness to explore and experiment with practices of other cultures
- select and critique artworks in progress,
- select and critique original artworks, portfolios of peers and exhibitions of peers

Standard 5: Develop an understanding of visual arts from a local, national and international perspective.

Benchmark 1: Explore and develop ideas for studio work through integrated contextual study and first-hand observation.

OUTCOME:

- use organizational principles and functions to solve specific visual art problems
- communicate ideas which relate to media, technique and developmental processes
- explore application of media, technique and process with sufficient skill
- explore application of media, technique and process with confidence

Benchmark 2: Explore and develop techniques for studio work through integrated contextual study and first-hand observation.

OUTCOME:

- communicate ideas which relate to media, technique and developmental processes
- explore application of media, technique and process with sufficient skill
- explore application of media, technique and process with confidence

Standard 6: Investigate past, present and emerging forms of VA and engage in producing, appreciating and evaluating these.

Benchmark 1: Respond to and analyze critically and contextually the functions, meaning and artistic

qualities of past, present and emerging art using the specialist vocabulary of VA.

OUTCOME:

- demonstrate a comprehensive artistic vocabulary using articulate written responses
- can make comparisons between different artworks across a period of time and culture
- know a range of historical and cultural contexts regarding characteristics and purposes of works of art
- know a range of art styles and where they fit into the history of art in relation to their meanings, subject matter and social conventions

Benchmark 2: Use artistic structures and characteristics to accomplish commercial, personal, communal and other artistic intentions

OUTCOME:

- provide clear indication of their awareness through their work in relation to the use of influence of messages that relate to the relevant issues of the work
- provide clear indication of their awareness through their work in relation to the use of appropriation of messages that relate to the relevant issues of the work
- provide clear indication of their awareness through their work in relation to the use of conveyance of messages that relate to the relevant issues of the work
- apply various subjects, symbols and ideas with confidence

MYP
Physical Education
Grade 7-10

Grade 7

Standard 1: USE OF KNOWELDGE IN PE.

Benchmark 1 Use physical education terminology in context.
Benchmark 2 Demonstrate an understanding of complex concepts, strategies, Techniques and rules related to a variety of physical education activities, and apply them in various contexts.
Benchmark 3 Demonstrate an understanding of the various principles that contribute to fitness, and their importance in various contexts.
Benchmark 4 Use their knowledge analyse situations, and solve problems.
OUTCOME:

- Use and understand the basic rules of a variety of physical education activities.
- Use some of physical education terminology
- **Demonstrate** an understanding of the importance of fitness in our life and apply it.
- Analyse simple situations, and solve simple problems.

Standard 2: COMPOSITION MOVEMENT

Benchmark 1 Explore movement possibilities and variations accordance with the principles of a particular aesthetic activity.
Benchmark 2 Compose aesthetic movements.
Benchmark 3 Link movement in order to compose aesthetic sequences, taking into account the concepts of space, time, level, force and flow
OUTCOME:

- Compose aesthetic movements.
- Link movements in order to compose aesthetic sequences.

Standard 3: PERFORMANCE

Benchmark 1 Demonstrate the Skills and techniques necessary for active participation in a variety of physical education activities.
Benchmark 2 Apply tactics, strategies and rules in both individual and group situations.
Benchmark 3 Perform movement concepts and sequences of movement in a variety of physical contexts.
OUTCOME:

- Demonstrate the skills for active participation
- Demonstrate simple tactics and apply it
- Understand the basic rules for many types of sports and try to apply it.
- Perform simple sequences of movement in a variety of activities

Standard 4: SOCIAL SKILLS AND PERSONAL ENGAGMENT

Benchmark 1 Express themselves effectively including verbal and non verbal forms of communication.
Benchmark 2 Demonstrate an attitudes and strategies that enhance their relationships with others.

Benchmark 3 Show respect and sensitivity to their own and different cultures
Benchmark 4 Take responsibility for their own learning process and demonstrate engagement with the activity
Benchmark 5 Reflect critically upon their own achievements
Benchmark 6 Set simple goals to enhance learning and take action towards achieving them
OUTCOME:

- Communicate effectively with others verbal and non verbal.
- Show respect to their own and different cultures.
- Demonstrate engagement with the activity.
- Demonstrate an attitude that enhances his relationships with others.

Grade 8

Standard 1: USE OF KNOWELDGE IN PE.

Benchmark 1 Use physical education terminology in context.
Benchmark 2 Demonstrate an understanding of complex concepts, strategies, Techniques and rules related to a variety of physical education activities, and apply them in various contexts.
Benchmark 3 Demonstrate an understanding of the various principles that contribute to fitness, and their importance in various contexts.
Benchmark 4 Use their knowledge analyse situations, and solve problems.
OUTCOME:

- Use and understand the basic rules of a variety of physical education activities.
- Use some of physical education terminology
- **Demonstrate** an understanding of the importance of fitness in our life and apply it.
- Analyse simple situations, and solve simple problems.

Standard 2: COMPOSITION MOVEMENT

Benchmark 1 Explore movement possibilities and variations accordance with the principles of a particular aesthetic activity.
Benchmark 2 Compose aesthetic movements.
Benchmark 3 Link movement in order to compose aesthetic sequences, taking into account the concepts of space, time, level, force and flow
OUTCOME:

- Compose aesthetic movements.
- Link movements in order to compose aesthetic sequences.

Standard 3: PERFORMANCE

Benchmark 1 **D**emonstrate the Skills and techniques necessary for active participation in a variety of physical education activities.
Benchmark 2 Apply tactics, strategies and rules in both individual and group situations.
Benchmark 3 Perform movement concepts and sequences of movement in a variety of physical contexts.
OUTCOME:

- Demonstrate the skills for active participation
- Demonstrate simple tactics and apply it
- Understand the basic rules for many types of sports and try to apply it.
- Perform simple sequences of movement in a variety of activities

Standard 4: SOCIAL SKILLS AND PERSONAL ENGAGMENT

Benchmark 1	Express themselves effectively including verbal and non verbal forms of communication.
Benchmark 2	Demonstrate an attitudes and strategies that enhance their relationships with others.
Benchmark 3	Show respect and sensitivity to their own and different cultures
Benchmark 4	Take responsibility for their own learning process and demonstrate engagement with the activity
Benchmark 5	Reflect critically upon their own achievements
Benchmark 6	Set simple goals to enhance learning and take action towards achieving them

OUTCOME:

- Communicate effectively with others verbal and non verbal.
- Show respect to their own and different cultures.
- Demonstrate engagement with the activity.
- Demonstrate an attitude that enhances his relationships with others.

Grade 9

Standard 1: USE OF KNOWELDGE IN PE.

Benchmark 1 Use physical education terminology in context.
Benchmark 2 Demonstrate an understanding of complex concepts, strategies, Techniques and rules related to a variety of physical education activities, and apply them in various contexts.
Benchmark 3 Demonstrate an understanding of the various principles that contribute to fitness, and their importance in various contexts.
Benchmark 4 Use their knowledge analyse situations, and solve problems.
OUTCOME:

- Use and understand the rules of a variety of physical education activities.
- Use physical education terminology
- Demonstrate an understanding of the importance of fitness in our life and apply it.
- Analyse situations, and solve problems (tactics, refereeing, coaching...)

Standard 2: COMPOSITION MOVEMENT

Benchmark 1 Explore movement possibilities and variations accordance with the principles of a particular aesthetic activity.
Benchmark 2 Compose aesthetic movements.
Benchmark 3 Link movement in order to compose aesthetic sequences, taking into account the concepts of space, time, level, force and flow
OUTCOME:

- Compose aesthetic movements.
- Link movements in order to compose aesthetic sequences.

Standard 3: PERFORMANCE

Benchmark 1 Demonstrate the Skills and techniques necessary for active participation in a variety of physical education activities.
Benchmark 2 Apply tactics, strategies and rules in both individual and group situations.
Benchmark 3 Perform movement concepts and sequences of movement in a variety of physical contexts.
OUTCOME:

- Demonstrate and link 3 or more skills for active participation
- Demonstrate offense and defense tactics and apply it
- Understand the rules for many types of sports and apply it.
- Perform sequences of movement in a variety of activities

Standard 4: SOCIAL SKILLS AND PERSONAL ENGAGMENT

Benchmark 1 Express themselves effectively including verbal and non verbal forms of communication.
Benchmark 2 Demonstrate an attitudes and strategies that enhance their relationships with others.

Benchmark 3 Show respect and sensitivity to their own and different cultures
Benchmark 4 Take responsibility for their own learning process and demonstrate engagement with the activity
Benchmark 5 Reflect critically upon their own achievements
Benchmark 6 Set simple goals to enhance learning and take action towards achieving them
OUTCOME:

- Communicate effectively with others verbal and non verbal.
- Show respect to their own and different cultures.
- Demonstrate engagement with the activity.
- Demonstrate an attitude that enhances his relationships with others.

Grade 10

Standard 1: USE OF KNOWELDGE IN PE.

Benchmark 1 Use physical education terminology in context.
Benchmark 2 Demonstrate an understanding of complex concepts, strategies, Techniques and rules related to a variety of physical education activities, and apply them in various contexts.
Benchmark 3 Demonstrate an understanding of the various principles that contribute to fitness, and their importance in various contexts.
Benchmark 4 Use their knowledge analyse situations, and solve problems.
OUTCOME:

- Use and understand the rules of a variety of physical education activities.
- Use physical education terminology
- Demonstrate an understanding of the importance of fitness in our life and apply it.
- Analyse situations, and solve problems (tactics, refereeing, coaching...)

Standard 2: COMPOSITION MOVEMENT

Benchmark 1 Explore movement possibilities and variations accordance with the principles of a particular aesthetic activity.
Benchmark 2 Compose aesthetic movements.
Benchmark 3 Link movement in order to compose aesthetic sequences, taking into account the concepts of space, time, level, force and flow
OUTCOME:

- Compose aesthetic movements.
- Link movements in order to compose aesthetic sequences.

Standard 3: PERFORMANCE

Benchmark 1 Demonstrate the Skills and techniques necessary for active participation in a variety of physical education activities.
Benchmark 2 Apply tactics, strategies and rules in both individual and group situations.
Benchmark 3 Perform movement concepts and sequences of movement in a variety of physical contexts.
OUTCOME:

- Demonstrate and link 3 or more skills for active participation
- Demonstrate offense and defense tactics and apply it
- Understand the rules for many types of sports and apply it.
- Perform sequences of movement in a variety of activities

Standard 4: SOCIAL SKILLS AND PERSONAL ENGAGMENT

Benchmark 1	Express themselves effectively including verbal and non verbal forms of communication.
Benchmark 2	Demonstrate an attitudes and strategies that enhance their relationships with others.
Benchmark 3	Show respect and sensitivity to their own and different cultures
Benchmark 4	Take responsibility for their own learning process and demonstrate engagement with the activity
Benchmark 5	Reflect critically upon their own achievements
Benchmark 6	Set simple goals to enhance learning and take action towards achieving the

OUTCOME:

- Communicate effectively with others verbal and non verbal.
- Show respect to their own and different cultures.
- Demonstrate engagement with the activity.
- Demonstrate an attitude that enhances his relationships with others.

ARABIC

Grade 7

منهاج اللغة العربيّة

كفايات اللغة العربيّة (اللغة الأولى) الأساسيّة - الصّفّ السّابع .

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أوّلا : مجال الاستماع .

الكفاية (١) : يفهم مضمون المادة المسموعة فهماً دقيقاً .

مكوّناتها : ١- يستخلص الفكرة الأساسية .
٢- يميز الفكرة الأساسية من الفكرة الفرعية .
٣- يرتب الأحداث والفكر بحسب ورودها في النص المسموع .
٤- يعيد سرد المادة المسموعة دون إخلال بالمضمون .
٥- يدرك المغزى من خلال نبرات الصوت وتلوين الأداء .
٦- يلخص المادة المسموعة محافظا على جوهرها .
٧- ينقل رسالة شفوية قصيرة من المتكلم إلى شخص آخر محافظا على صحتها .

مخرجات التعلم : ١-
١ -يفهم معاني المفردات الجديدة للنّص
٢ -يفرق بين الأفكار الرئيسة والفرعية.
٣ -يرسم خارطة للقصّة
٤ -يفهم النص ثمّ يلخصه .
٥ -يتمثل المعنى ويؤديه في الإلقاء.
٦ -يحافظ على المضمون الأساسي.
٧ -يصيغ الرسالة المنقولة بأسلوبه.

الكفاية (٢) : ينقد المادة المسموعة نقداً مبنياً على شواهد موضوعية .

مكوّناتها : ١- يميز الفكر ذات الصلة بالمادة المسموعة من غيرها من الفكر الأخرى .
٢- يبرز أهم الجوانب التي أعجبته في المادة المسموعة محتوىً وأسلوباً .
٣- يبدي رأيه فيما يستمع إليه .
٤- يميز الحقيقة من الرأي في المادة المسموعة .

مخرجات التعلم :
١ -يعين الفكر التي ترتبط بمادة الاستماع..

٢ –يوضح المحتوى الإجمالي في الأسلوب والمعنى..
٣ -يقيّم مايستمع إليه فكريا .
٤ -يفرق بين الحقيقة والرأي في ما يسمعه .

الكفاية (٣) : يلتزم آداب الاستماع .
مكوّناتها : ١- يصغي إلى المتحدث إصغاء جاداً .
٢- يلتزم عدم مقاطعة المتحدث في أثناء الاستماع .
مخرجات التعلم :
١ -تمثّل أداب الاستماع .
٢ -معرفة مواطن المداخلة في التعليق.

ثانيا : مجال التّحدّث :
الكفاية (١) : يعبّر عن أفكاره ومشاهداته ومشاعره تعبيرا شفويا فصيحا .
مكوّناتها : ١- يعرض أفكاره عرضا منظما ومتسلسلا .
٢- يستخدم اللغة الفصيحة في حديثه .
٣ -يوظّف خبراته اللغوية والفكرية السّابقة عند عرض أفكاره .
٤ -يدعم أفكاره بالأدلة بالبراهين المنطقية .

مخرجات التعلم :
١ -يخطّط لعرض أفكاره .
٢ -يحسن استخدام اللغة بقواعدها.
٣ -يمتلك معارف لغوية ودلائل فكرية .
٤ -يستخدم أدلة وحجج منطقية في عرضه .

الكفاية (٢) : يتمثّل المعنى مستخدما آليات هذا التمثّل بحسب مقتضيات الموضوع .
مكوّناتها : ١- يتحدّث بصوت واضح معتدل .
٢-ينوع نبرات الصّوت بحسب متطلبات الموقف .
٣ -يوظّف لغة الإشارات في أثناء التحدث بطريقة تساعد على تأكيد المعنى.
٤ -يلقي نصّا أدبيا إلقاء سليما معبّرا .

مخرجات التعلم :
١ -يطبّق القواعد الصّوتية أثناء عرضه.
٢ -يجيد فن الإلقاء .
٣ -يؤدي أداء تمثيليا بين الصوت والإشارة.
٤ -يحاكي إلقاء نص أدبي.

الكفاية (٣) : يوظّف بعض آليات الحوار والمناقشة توظيفا سليما .
مكوّناتها : ١- يطرح أسئلة تتسم بالوضوح والسلامة اللغوية .
٢- يعلّق على الآراء والأفكار التي تطرح في مواقف الحوار والمناقشة .
٣- يخطّط لإجراء المقابلات الشفهية ومواقف الحوار .
مخرجات التعلم :
١ -ينتقي الأسئلة بوضوح .
٢ -يتفاعل إيجابيا مع الآراء والفكر المطروحة في المناقشة .
٣ -يتّصل بالمحاورين وفق مواقف محددة.

الكفاية (٤) : يلتزم آداب الحوار والمناقشة بطريقة تظهر استعداده وجدّيته .
مكوّناتها : ١- يظهر الاحترام للآخرين في أثناء الحديث .
٢- يتّبع النّظام عند طلب الاستفسار .
٣- يتقبّل آراء الآخرين دون تعصّب لرأيه .
٤ -يظهر الثّقة بالنّفس دون تردّد أو خجل في أثناء حديثه .
٥ -يردّ بموضوعية على الآراء التي لا تتفق مع رأيه .

مخرجات التعلم :
١ -يلتزم بعدم المقاطعة .
٢ -يعرف مواطن المداخلة في الحديث .
٣ -يتجنّب استفزاز المحاور والانغلاق على رأيه .
٤ -يتحدّث بطلاقة خالية من العقد .
٥ -يقيّم الآراء المخالفة بشكل متزن وسلس.

ثالثا : مجال القراءة
الكفاية (١) : يقرأ مادة مكتوبة قراءة جهرية بشكل سليم ومعبّر .
مكوناتها : ١- ينطق الحروف والكلمات نطقا سليما .
٢- يراعي الضبط اللغوي الصحيح في أثناء القراءة .
٣- يتمثّل المعنى في أثناء القراءة .
٤- يراعي متطلبات الوصل والوقف في أثناء القراءة .
مخرجات التعلم :
١ -يتقن مخارج الحروف .
٢ -يجيد التشكيل آليا أثناء القراءة بسرعة مناسبة.

٣ -يظهر المعاني من خلال نبرات الصّوت .
٤ -تفعيل أدوات الترقيم .

الكفاية (٢) : يفهم المادة المقروءة المناسبة لمستواه فهما صحيحا .
مكوّناتها : ١- يحدد الفكرة الأساسيّة .
٢- يحدّد الفكر الفرعيّة .
٣- يوضّح نوع العلاقة بين الفكر في النّص المقروء .
٤ -يستخلص معاني المفردات من خلال السّياق .
٥ -يستنتج القيم التي يتضمّنها النّص .
٦ -يستخلص المعاني الضمنية في النّص المقروء

مخرجات التعلم :
١ -يفهم الفكرة الرئيسة في المادة المقروءة .
٢ -يصنّف الأفكار بحسب ورودها في النّص .
٣ -يستنبط الخطّة التي تحكم الفكر .
٤ -يستخدم المعاجم والقواميس اللغوية .
٥ -يستدل أهداف النّص البعيدة .
٦ -يتوصل إلى المعاني الخفية في النّص المقروء .

الكفاية (٣) : يقرأ قراءة ناقدة مستخدما معايير نقدية سليمة .
مكوّناتها : ١- يبدي رأيه في المادة المقروءة .
٢- يحدّد الفكر والأدلّة التي قد لا تتصل بموضوع النص .
٣ -يوازن بين رأيين أو فكرتين في النص المقروء .
٤ -يميّز بين الحقيقة والرأي .

مخرجات التعلم : ١- يصل إلى المغزى .
٢- يدرك ما تحمله المفردات والتّراكيب من إيحاء ، ودلالات ، ويوظفها في أحكامه وآرائه من خلال إبراز ما فيها دقّة تعبير أو نقيضه .
٣- يقف على مواطن التّشابه والاختلاف بين النّصوص المقروءة مفاضلا بينها على أصول صحيحة ومقنعة .
٤- يقرأ نصوصا تتراوح ما بين ١٥٠- ٢٠٠ كلمة قراءة سليمة .

الكفاية (٤) : يقرأ النص الأدبي قراءة تذوّقيّة محدّدا ما فيه من جوانب جمالية .
مكوّناتها : ١- يوضّح القيمة الفنية للألفاظ والعبارات .
٢- يميّز الأسلوب الجميل من بين الأساليب الأخرى مع التعليل .
٣ -يشرح الصور الجمالية في النص محدّدا مواطن الجمال فيها .

مخرجات التعلم :

١ -يستنتج الصور الجمالية والخيال في بعض العبارات.
٢ -يفرق بين جمال الأساليب وفق دليل منطقي .
٣ -يتذوق الصور الجمالية وفق معرفته .

الكفاية (٥) : يقرأ قراءة وظيفية مستخدما آلياتها استخداما صحيحا .

مكوّناتها : ١- يستخدم المعاجم اللغوية استخداما صحيحا .
٢- يوظف بطاقات المكتبة توظيفا سليما .
٣ -يقرأ الجداول والفهارس والخرائط قراءة صحيحة .
٤ -يوظف المراجع ودوائر المعارف توظيفا سليما .
٥ -يلخّص فقرة من النّص المقروء مكونة من عشرة أسطر محافظا على جوهرها الأساسي .

مخرجات التعلم :

١ -يحسن استخدام المعاجم والكشف عن معاني المفردات المختلفة.
٢ -يلم بتقنيات التعامل مع المكتبات .
٣ -يحوّل الرموز والإشارات إلى نصوص علمية مفهومة.
٤ -يستغل مصادر التعلّم بشكل سليم .
٥ -يميّز بين السرد والتلخيص .

رابعا : مجال الكتابة .

الكفاية (١) : يخطط لكتابة موضوع ما مستوفيا عناصر التخطيط المطلوبة .

مكوّناتها : ١- يحدد العناصر الأساسية للموضوع .
٢- يجمع المعلومات والأفكار من مصادرها المختلفة .
٣- يرتب عناصر الموضوع ترتيبا متسلسلا .
٤- ينظّم موضوعه مراعيا المقدمة والعرض والخاتمة .

مخرجات التعلم : ١- يلمّ بميزات الأعمال الكتابيّة : المقال ، والرّسالة ، والقصّة ، ويوظّفها في مخطّطه .
٢- يسترجع ذاكرته من معارف ، ومفردات ، وصور فنيّة لخدمة المطلوب .
٣- يضع الأفكار الرئيسية للموضوع وفق المطلوب .
٤- يدوّن الملاحظات المناسبة كالشّواهد ، والسّرد ، وغيرها .

الكفاية (٢) : يعبر عن أفكاره وأحاسيسه تعبيرا كتابيا سليما .

مكوّناتها : ١- يستوفي أفكار الموضوع الذي يكتب فيه .
٢- يعزّز أفكاره بشواهد وأدلّة مناسبة .
٣- ينوع أساليبه التعبيرية في الكتابة .
٤ -يكتب قصة أو خاطرة تجول في ذهنه .
٥ -يكتب رسالة إخوانيّة مستوفيا عناصرها .

٦ -يعلّق على الآراء والمواقف مبديا رأيه .

مخرجات التعلم :

١ -يصمّم مخططا شاملا للموضوع المطلوب
٢ -يتزوّد و يحفظ شواهد داعمة .
٣ -يربط بين فنون وأنماط الكتابة .
٤ -يحوّل الفكر إلى آثار أدبية .
٥ -يلمّ بخصائص فن الترسّل .
٦ -يقيّم الفكر والمواقف كتابيا .

الكفاية (٣) : يعبر تعبيرا وظيفيا مراعيا أسس هذا التعبير .

مكوّناتها : ١- يملأ استمارة طلب في أمر من أمور الحياة .
٢- يكتب رسالة رسمية مستوفيا عناصرها .
٣- يكتب إعلانا مدرسيا أو بطاقة دعوة أو تهنئة .
٤ -يكتب تقريرا عن رحلة أو زيارة أو نحو ذلك .
٥ -يعدّ وينظم الفهارس والجداول .

مخرجات التعلم :

١ -يضع المعلومة المناسبة في الخانة المناسبة .
٢ -يصوغ استمارة الطّلب بشكل رسمي .
٣ -يصمّم إعلانا أو بطاقة .
٤ -يلم بخصائص كتابة التقرير
٥ -يحوّل مادة علمية إلى رموز وإشارات .

الكفاية (٤) : يكتب كتابة خالية من الأخطاء اللغوية .

مكوّناتها : ١- يكتب كتابة خالية من الأخطاء الإملائية .
٢- يكتب كتابة خالية من الأخطاء النحوية .
٣- يستخدم ألفاظا وعبارات فصيحة في كتابته .
٤- يصوغ الجمل والتراكيب صياغة واضحة وسليمة .
٥ -يستخدم الروابط وحروف العطف استخداما صحيحا .

مخرجات التعلم :

١ -يوظف القواعد الإملائية في كتابته .
٢ -يوظف القواعد النحوية في كتابته.
٣ -يميّز بين الفصيح والعامي .
٤ -يمتلك تقنية صياغة الفكر والمشاعر بشكل فصيح .
٥ -يصل بين مكونات النّص الذي يكتبه .

الكفاية (٥) : يراعي التنسيق والتنظيم في كتابته بشكل سليم .

مكوّناتها : ١- يكتب العنوان الرئيسي بشكل واضح في مكانه الصحيح .
٢- ينظم الهوامش وبدايات الفقرات .
٣- يكتب بخط واضح تسهل قراءته .
٤- يقسّم الموضوع الكتابي إلى أجزائه المعروفة : المقدمة والعرض والخاتمة .
٥- يحاكي النماذج الجيدة من الخطوط العربية .
٦ -يوظف علامات الترقيم في كتابته توظيفا سليما .

مخرجات التعلم :

١- يلمّ بمفهوم العنوان ، ويختاره ، ويضعه في مكانه الصّحيح .
٢- يقسّم الموضوع المكتوب إلى فقرات وفق حدودها الصّحيحة.
٣- يحيط علما بميزات كلّ من خطّ النّسخ والرّقعة .
٤- يراعي في كتابه حجم الحرف وصورته الصّحيحة .
٥- يكتب بخطيّ النّسخ والرّقعة .
٦- يوضّح مفهوم كلّ من النّقطة ، والفاصلة ، والنّقطتين الرّئيسيّتين والتّفقير .
٧- يحيط معرفة بمواطن وضع علامات التّرقيم : النّقطة ، والفاصلة، والنّقطتين الرّئيسيّتين ، ويضعها وفق تلك المواطن .

Grade 8

منهاج اللغة العربيّة

كفايات اللغة العربيّة (اللغة الأولى) الأساسيّة - الصّفّ السّابع .

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أوّلا : مجال الاستماع .

الكفاية (١) : يفهم مضمون المادة المسموعة فهماً دقيقاً .

مكوّناتها : ١- يستخلص الفكرة الأساسية .
٢- يميز الفكرة الأساسية من الفكرة الفرعية .
٣- يرتب الأحداث والفكر بحسب ورودها في النص المسموع .
٤- يعيد سرد المادة المسموعة دون إخلال بالمضمون .
٥- يدرك المغزى من خلال نبرات الصوت وتلوين الأداء .
٦- يلخص المادة المسموعة محافظا على جوهرها .
٧- ينقل رسالة شفوية قصيرة من المتكلم إلى شخص آخر محافظا على صحتها .

مخرجات التعلم : ١-
٨ -يدرك البعاد الدلالية للنّص
٩ -يفهم دلالات النّص ويصنّفها
١٠ - يرسم خارطة للقصّة
١١ - يفهم النص ثمّ يلخصه يلخّص النّص
١٢ - يتقن التفاعل مع فن الإلقاء .
١٣ - يركّز على الأساسيات الدلالية .
١٤ - يعي مفهوم الأمانة في النّقل .

الكفاية (٢) : ينقد المادة المسموعة نقداً مبنياً على شواهد موضوعية .

مكوّناتها : ١- يميز الفكر ذات الصلة بالمادة المسموعة من غيرها من الفكر الأخرى .
٢- يبرز أهم الجوانب التي أعجبته في المادة المسموعة محتوىً وأسلوباً .
٣- يبدي رأيه فيما يستمع إليه .
٤- يميز الحقيقة من الرأي في المادة المسموعة .
٥- يكشف ما قد يكون في المادة المسموعة من تناقض .

مخرجات التعلم :
٥ - يحدّد صلة الفِكَر بالمادّة المسموعة .
٦ – يثمّن المادّة المسموعة من حيث المعنى والمبنى .
٧ -يقيّم مايستمع إليه فكريا .
٨ -يميّز بين الذاتي والموضوعي في ما يسمعه .
٩ - ينخل المادة (يحدّد مواطن التناقض) .

الكفاية (٣) : يلتزم آداب الاستماع .
مكوّناتها : ١- يصغي إلى المتحدث إصغاء جاداً .
٢- يلتزم عدم مقاطعة المتحدث في أثناء الاستماع .
مخرجات التعلم :
٥ -تمثّل أداب الاستماع .
٦ -معرفة مواطن المداخلة .

ثانيا : مجال التّحدّث :
الكفاية (١) : يعبّر عن أفكاره ومشاهداته ومشاعره تعبيرا شفويا فصيحا .
مكوّناتها : ١- يعرض أفكاره عرضا منظما ومتسلسلا .
٢- يستخدم اللغة الفصيحة في حديثه .
٧ -يوظّف خبراته اللغوية والفكرية السّابقة عند عرض أفكاره .
٨ -يدعم أفكاره بالأدلة بالبراهين المنطقية .

مخرجات التعلم :
٥ -يخطّط لعرض أفكاره .
٦ -يلمّ بقواعد اللغة ويتمثّلها .
٧ -يمتلك معارف لغوية وفكرية .
٨ -يوظف الشواهد العقلية في عرضه .

الكفاية (٢) : يتمثّل المعنى مستخدما آليات هذا التمثّل بحسب مقتضيات الموضوع .
مكوّناتها : ١- يتحدّث بصوت واضح معتدل .
٢- ينوّع نبرات الصّوت بحسب متطلبات الموقف .
٥ -يوظّف لغة الإشارات في أثناء التحدث بطريقة تساعد على تأكيد المعنى.
٦ -يلقي نصّا أدبيا إلقاء سليما معبّرا .

مخرجات التعلم :
٥ -يطبّق القواعد الصّوتية أثناء عرضه.
٦ -يمتلك فن الإلقاء .
٧ -يناغم بين الصّوت والإشارة الجسدية .
٨ -يتقن فن الخطابة .

الكفاية (٣) : يوظّف بعض آليات الحوار والمناقشة توظيفا سليما .
مكوّناتها : ١- يطرح أسئلة تتسم بالوضوح والسلامة اللغوية .

٢- يعلّق على الآراء والأفكار التي تطرح في مواقف الحوار والمناقشة .
٣- يخطّط لإجراء المقابلات الشفهية ومواقف الحوار .

مخرجات التعلم :

٦ -ينتقي الأسئلة بنجاعة .
٧ -يتفاعل إيجابيا مع الآراء والفكر المطروحة في المناقشة .
٨ -يتّصل بالمحاورين وفق رزنامة محدّدة سلفا .

الكفاية (٤) : يلتزم آداب الحوار والمناقشة بطريقة تظهر استعداده وجدّيته .
مكوّناتها : ١- يظهر الاحترام للآخرين في أثناء الحديث .
٢- يتّبع النّظام عند طلب الاستفسار .
٣- يتقبّل آراء الآخرين دون تعصّب لرأيه .
٩ -يظهر الثّقة بالنّفس دون تردّد أو خجل في أثناء حديثه .
١٠ - يردّ بموضوعية على الآراء التي لا تتفق مع رأيه .

مخرجات التعلم :

٦ -يلتزم بعدم المقاطعة .
٧ -يعرف مواطن المداخلة .
٨ -يتجنّب استفزاز المحاور والانغلاق على رأيه .
٩ -يتحدّث بطلاقة خاليا من العقد .
١٠ -يقيّم الآراء المخالفة بشكل عادل ومتوازن .

ثالثا : مجال القراءة

الكفاية (١) : يقرأ مادة مكتوبة قراءة جهرية بشكل سليم ومعبّر .
مكوناتها : ١- ينطق الحروف والكلمات نطقا سليما .
٢- يراعي الضبط اللغوي الصحيح في أثناء القراءة .
٣- يتمثّل المعنى في أثناء القراءة .
٤- يراعي متطلبات الوصل والوقف في أثناء القراءة .

مخرجات التعلم :

٥ -يتقن مخارج الحروف .
٦ -يجيد التشكيل آليا أثناء القراءة .
٧ -يظهر المعاني من خلال نبرات الصّوت .
٨ -تفعيل أدوات الترقيم .

الكفاية (٢) : يفهم المادة المقروءة المناسبة لمستواه فهما صحيحا .
مكوّناتها : ١- يحدد الفكرة الأساسيّة .

٢- يحدّد الفكر الفرعيّة .
٣- يوضّح نوع العلاقة بين الفكر في النّص المقروء .
٧ -يستخلص معاني المفردات من خلال السّياق .
٨ -يستنتج القيم التي يتضمّنها النّص .
٩ -يستخلص المعاني الضمنية في النّص المقروء

مخرجات التعلم :
٧ -يفهم الدلالة الرئيسة في المادة المقروءة .
٨ -يصنّف الدلالات بحسب قيمتها في النّص .
٩ -يستنبط الخطّة التي تحكم الفكر .
١٠ - يستخدم المعاجم والقواميس اللغوية .
١١ - يرصد أهداف النّص البعيدة .
١٢ - يؤوّل الدلالات الخفية في النّص المقروء .

الكفاية (٣) : يقرأ قراءة ناقدة مستخدما معايير نقدية سليمة .
مكوّناتها : ١- يبدي رأيه في المادة المقروءة .
٢- يحدّد الفكر والأدلّة التي قد لا تتصل بموضوع النص .
٧ -يوازن بين رأيين أو فكرتين في النص المقروء .
٨ -يميّز بين الحقيقة والرأي .

مخرجات التعلم : ١- يصل إلى المغزى .
٢- يدرك ما تحمله المفردات والتّراكيب من إيحاء ، ودلالات ، ويوظفها في أحكامه وآرائه من خلال إبراز ما فيها دقّة تعبير أو نقيضه .
٣- يقف على مواطن التّشابه والاختلاف بين النّصوص المقروءة مفاضلا بينها على أصول صحيحة ومقنعة .
٤- يقرأ نصوصا تتراوح ما بين ١٥٠- ٢٠٠ كلمة قراءة سليمة .

الكفاية (٤) : يقرأ النص الأدبي قراءة تذوّقيّة محدّدا ما فيه من جوانب جمالية .
مكوّناتها : ١- يوضّح القيمة الفنية للألفاظ والعبارات .
٢- يميّز الأسلوب الجميل من بين الأساليب الأخرى مع التعليل .
٧ -يشرح الصور الجمالية في النص محدّدا مواطن الجمال فيها .

مخرجات التعلم :
٦ -يفعّل مهارات البلاغة .
٧ -يفاضل بين الأساليب وفق منهج علمي .
٨ -ينقد البنية الجمالية وفق معارفه البلاغية .

الكفاية (٥) : يقرأ قراءة وظيفية مستخدما آلياتها استخداما صحيحا .

مكوّناتها : ١- يستخدم المعاجم اللغوية استخداما صحيحا .
٢- يوظف بطاقات المكتبة توظيفا سليما .
٦ -يقرأ الجداول والفهارس والخرائط قراءة صحيحة .
٧ -يوظف المراجع ودوائر المعارف توظيفا سليما .
٨ -يلخّص فقرة من النّص المقروء مكونة من عشرة أسطر محافظا على جوهرها الأساسي .

مخرجات التعلم :
٦ -يميّز في استخدام المعاجم بحسب نظام تبويبها .
٧ -يلم بتقنيات التعامل مع المكتبات .
٨ -يحوّل الرموز والإشارات إلى نصوص علمية صريحة .
٩ -يستغل مصادر التعلّم بشكل سليم .
١٠ - يميّز بين السرد والتلخيص .

رابعا : مجال الكتابة .

الكفاية (١) : يخطط لكتابة موضوع ما مستوفيا عناصر التخطيط المطلوبة .

مكوّناتها : ١- يحدد العناصر الأساسية للموضوع .
٢- يجمع المعلومات والأفكار من مصادرها المختلفة .
٣- يرتب عناصر الموضوع ترتيبا متسلسلا .
٤- ينظّم موضوعه مراعيا المقدمة والعرض والخاتمة .

مخرجات التعلم : ١- يلمّ بميزات الأعمال الكتابيّة : المقال ، والرّسالة ، والقصّة ، ويوظّفها في مخطّطه .
٢- يسترجع ذاكرته من معارف ، ومفردات ، وصور فنيّة لخدمة المطلوب .
٣- يضع الخطوط الأساسيّة للموضوع وفق المطلوب .
٤- يدوّن الملاحظات المناسبة كالشّواهد ، والسّرد ، وغيرها .

الكفاية (٢) : يعبر عن أفكاره وأحاسيسه تعبيرا كتابيا سليما .

مكوّناتها : ١- يستوفي أفكار الموضوع الذي يكتب فيه .
٢- يعزّز أفكاره بشواهد وأدلّة مناسبة .
٣- ينوع أساليبه التعبيرية في الكتابة .
٨ -يكتب قصة أو خاطرة تجول في ذهنه .
٩ -يكتب رسالة إخوانيّة مستوفيا عناصرها .
١٠ - يعلّق على الآراء والمواقف مبديا رأيه .

مخرجات التعلم :
٧ -يصمّم مخططا شاملا للموضوع المطلوب
٨ -يتزوّد بشواهد داعمة .

٩ -يزاوج بين فنون وأنماط الكتابة .
١٠ - يحوّل الفكر إلى آثار أدبية .
١١ - يلمّ بخصائص فن الترسّل .
١٢ - يقيّم الفكر والمواقف كتابيا .

الكفاية (٣) : يعبر تعبيرا وظيفيا مراعيا أسس هذا التعبير .
مكوّناتها : ١- يملأ استمارة طلب في أمر من أمور الحياة .
٢- يكتب رسالة رسمية مستوفيا عناصرها .
٣- يكتب إعلانا مدرسيا أو بطاقة دعوة أو تهنئة .
٩ -يكتب تقريرا عن رحلة أو زيارة أو نحو ذلك .
١٠ - يعدّ وينظم الفهارس والجداول .

مخرجات التعلم :
٦ -يضع المعلومة المناسبة في الخانة المناسبة .
٧ -يصوغ استمارة الطّلب بشكل رسمي .
٨ -يصمّم إعلانا أو بطاقة .
٩ -يلم بخصائص كتابة التقرير
١٠ - يحوّل مادة علمية إلى رموز وإشارات .

الكفاية (٤) : يكتب كتابة خالية من الأخطاء اللغوية .
مكوّناتها : ١- يكتب كتابة خالية من الأخطاء الإملائية .
٢- يكتب كتابة خالية من الأخطاء النحوية .
٣- يستخدم ألفاظا وعبارات فصيحة في كتابته .
٤- يصوغ الجمل والتراكيب صياغة واضحة وسليمة .
٩ -يستخدم الروابط وحروف العطف استخداما صحيحا .

مخرجات التعلم :
٦ -يوظف القواعد الإملائية في كتابته .
٧ -يوظف القواعد النحوية في كتابته.
٨ -يميّز بين الفصيح والعامي .
٩ -يمتلك تقنية صياغة الفكر والمشاعر بشكل فصيح .
١٠ - يصل بين مكونات النّص الذي يكتبه .

الكفاية (٥) : يراعي التنسيق والتنظيم في كتابته بشكل سليم .
مكوّناتها : ١- يكتب العنوان الرئيسي بشكل واضح في مكانه الصحيح .
٢- ينظم الهوامش وبدايات الفقرات .

٣- يكتب بخط واضح تسهل قراءته .
٤- يقسّم الموضوع الكتابي إلى أجزائه المعروفة : المقدمة والعرض والخاتمة .
٥- يحاكي النماذج الجيدة من الخطوط العربية .
١٠ - يوظف علامات الترقيم في كتابته توظيفا سليما .

مخرجات التعلم :

١- يلمّ بمفهوم العنوان ، ويختاره ، ويضعه في مكانه الصّحيح .
٢- يقسّم الموضوع المكتوب إلى فقرات وفق حدودها الصّحيحة.
٣- يحيط علما بميزات كلّ من خطّ النّسخ والرّقعة .
٤- يراعي في كتابه حجم الحرف وصورته الصّحيحة .
٥- يكتب بخطيّ النّسخ والرّقعة .
٦- يوضّح مفهوم كلّ من النّقطة ، والفاصلة ، والنّقطتين الرّئيسيّتين والتّفقير .
٧- يحيط معرفة بمواطن وضع علامات التّرقيم : النّقطة ، والفاصلة، والنّقطتين الرّئيسيّتين ، ويضعها وفق تلك المواطن .

Grade 9

منهاج اللغة العربيّة
كفايات اللغة العربيّة (اللغة الأولى) الأساسيّة - الصّفّ التّاسع .
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أوّلا : مجال الاستماع .

الكفاية (١) : يفهم مضمون المادة المسموعة فهماً دقيقاً .

مكوّناتها : ١- يستخلص الفكرة الأساسية .
٢- يميز الفكرة الأساسية من الفكرة الفرعية .
٣- يرتب الأحداث والفكر بحسب ورودها في النص المسموع .
٤- يعيد سرد المادة المسموعة دون إخلال بالمضمون .
٥- يدرك المغزى من خلال نبرات الصوت وتلوين الأداء .
٦- يلخص المادة المسموعة محافظا على جوهرها .
٧- ينقل رسالة شفوية قصيرة من المتكلم إلى شخص آخر محافظا على صحتها .

مخرجات التعلم :
١- يصنّف الأفكار حسب أهميتها .
٢- يصمم خارطة ذهنية لمحتوى المادّة المسموعة (الترتيب والتنظيم) .
٣- يحاكي المادة المسموعة بطريقته دون إخلال بمحتواها.
٤- يستنبط المقاصد من خلال النبرات والتنغيم .
٥- يصوغ جوهرالمادة المسموعة بموضوعية ودقة.

الكفاية (٢) : ينقد المادة المسموعة نقداً مبنياً على شواهد موضوعية .

مكوّناتها : ١- يميز الفكر ذات الصلة بالمادة المسموعة من غيرها من الفكر الأخرى .
٢- يبرز أهم الجوانب التي أعجبته في المادة المسموعة محتوىً وأسلوباً .
٣- يبدي رأيه فيما يستمع إليه .
٤- يميز الحقيقة من الرأي في المادة المسموعة .
٥- يكشف ما قد يكون في المادّة المسموعة من تناقض .
٦- يوازن بين الآراء التي استمع إليها بطريقة موضوعيّة .
٧- يكتشف الأساليب الدّعائية والإعلانيّة في المادّة المسموعة .

مخرجات التعلم :
١ -يحدّد مدى صلة الفِكَر بالمادّة المسموعة .
٢ -يقيّم المادّة المسموعة دلاليا وجماليا .
٣ -يحدّد موقفه ممّا يستمع إليه .
٤ -يفصل الثّابت عن المتحول في ما يسمع (الموضوعي والذّاتي)
٥ -يتنبّه إلى مواطن التّناقض .
٦ -يتفاعل بموضوعية مع كل الآراء .
٧ -يميّز ما هو دعائيّ في المادّة المسموعة .

الكفاية (٣) : يلتزم آداب الاستماع .

مكوّناتها : ١- يصغي إلى المتحدث إصغاء جاداً .
٢- يلتزم عدم مقاطعة المتحدث في أثناء الاستماع .

مخرجات التعلم :
١ -إبداء الجدّيّة وحسن الإصغاء للمتحدّث .
٢ -ضبط النّفس أثناء الاستماع .
٣ -عدم مقاطعة المتحدّث واجتناب استفزازه .

ثانيا : مجال التّحدّث :

الكفاية (١) : يعبّر عن أفكاره ومشاهداته ومشاعره تعبيرا شفويا فصيحا .

مكوّناتها : ١- يعرض أفكاره عرضا منظما ومتسلسلا .
٢- يستخدم اللغة الفصيحة في حديثه .
٣- يوظّف خبراته اللغوية والفكرية السّابقة عند عرض أفكاره .
٤ -يدعم أفكاره بالادلة والبراهين المنطقيّة .
٥ -يستوفي عناصر الموضوع الذي يتحدّث عنه .

مخرجات التعلم :
١ -يصدر عن خطاب متوازن ومتدّرّج من حيث المحتوى.
٢ -يرتجل بالفصحى .
٣ -يتمثّل ما أدرك من لغة وفِكَر.(يفيد من تحصيله اللغوي والفكري)
٤ -ينشئ خطابا برهانيا مقنعا . (يبرهن على صحّة أفكاره)
٥ -يلمّ بمختلف جوانب الموضوع .

الكفاية (٢) : يتمثّل المعنى مستخدما آليات هذا التمثّل بحسب مقتضيات الموضوع .

مكوّناتها : ١- يتحدّث بصوت واضح معتدل .
٢- ينوّع نبرات الصّوت بحسب متطلبات الموقف .
٣- يوظّف لغة الإشارات في أثناء التحدث بطريقة تساعد على تأكيد المعنى .
٤- يلقي نصّا أدبيا إلقاء سليما معبّرا .

مخرجات التعلم :
١ -يراعي عناصر فنّ الإلقاء .
٢ -يسند حديثه بما يناسبه من لغة الإشارات .

الكفاية (٣) : يوظّف بعض آليات الحوار والمناقشة توظيفا سليما .

مكوّناتها : ١- يطرح أسئلة تتسم بالوضوح والسلامة اللغوية .
٢ -يعلّق على الآراء والأفكار التي تطرح في مواقف الحوار والمناقشة .
٣ -يخطّط لإجراء المقابلات الشّفهيّة ومواقف الحوار .
٤ -يدير ندوات صفّيّة تتّصل بموضوعات المنهج الدّراسي .

مخرجات التعلم :

١ -صياغة الأسئلة بأسلوب واضح ولغة سليمة.
٢ -يلتزم بقواعد الحوار من حيث التّوقيت.
٣ -يستعدّ مسبقاً للمشافهة والمحاورة .
٤ -يوزّع الأدوار والمهمّات الصّفيّة على أفراد المجموعة التي ينتمي إليها.

الكفاية (٤) : يلتزم آداب الحوار والمناقشة بطريقة تظهر استعداده وجدّيته .
مكوّناتها : ١- يظهر الاحترام للآخرين في أثناء الحديث .
٢- يتّبع النّظام عند طلب الاستفسار .
٣- يتقبّل آراء الآخرين دون تعصّب لرأيه .
٤- يظهرالثّقة بالنّفس دون تردّد أو خجل في أثناء حديثه .
٥ -يردّ بموضوعيّة على الآراء التي لا تتّفق مع رأيه .

مخرجات التعلم :
١ -يتجنّب استفزاز الآخرين والاستخفاف بهم .
٢ -ينتظر دوره في المداخلة.
٣ -ينفتح على الرّاي المخالف .
٤ -يتحدّث بطلاقة وانسيابيّة .
٥ -يستعمل الحجج المقنعة في طروحاته وردوده .

ثالثا : مجال القراءة
الكفاية (١) : يقرأ مادة مكتوبة قراءة جهرية بشكل سليم ومعبّر .
مكوناتها : ١- ينطق الحروف والكلمات نطقا سليما .
٢- يراعي الضبط اللغوي الصحيح في أثناء القراءة .
٣- يتمثّل المعنى في أثناء القراءة .
٤- يراعي متطلبات الوصل والوقف في أثناء القراءة .
مخرجات التعلم :
١ -يتمثّل قواعد النّطق السّليم عند القراءة .
٢ -يستحضر قواعد اللّغة أثناء القراءة .
٣ -يعبّر بصوته عن المعاني .
٤ -يقرأ بشكل متناغم لا نشاز فيه .

الكفاية (٢) : يفهم المادة المقروءة المناسبة لمستواه فهما صحيحا .
مكوّناتها : ١- يحدد الفكرة الأساسيّة .
١٠ - يحدّد الفكر الفرعيّة .
١١ - يوضّح نوع العلاقة بين الفكر في النّص المقروء .
١٢ - يستخلص معاني المفردات من خلال السّياق .

١٣ - يستنتج القيم التي يتضمّنها النّص .
١٤ - يستخلص المعاني الضّمنيّة في النّص المقروء .

مخرجات التعلم :
١ -يصنّف أفكار النّص بحسب ثقلها .
٢ -يعلّل نظام توارد الأفكار في النّص المقروء .
٣ -يستغلّ السّياق لفهم معاني المفردات .
٤ -يستنبط مقاصد النّص .

الكفاية (٣) : يقرأ قراءة ناقدة مستخدما معايير نقدية سليمة .
مكوّناتها : ١- يبدي رأيه في المادة المقروءة .
٢- يحدّد الفكر والأدلّة التي قد لا تتصل بموضوع النص .
١١ - يوازن بين رأيين أو فكرتين في النص المقروء .
١٢ - يميّز بين الحقيقة والرّأي .
١٣ - يكتشف الأساليب الدّعائية والإعلانيّة في النّص المقروء .

مخرجات التعلم :
١- يصل إلى المغزى .
٢- يدرك الخصائص الإيحائية والدّلالية للمفردات والتّراكيب ويوظفها في أحكامه وآرائه من خلال إبراز ما فيها من دقّة تعبير أو نقيضه .
٣- يقف على مواطن التّشابه والاختلاف بين النّصوص المقروءة مفاضلا بينها على أصول صحيحة ومقنعة .
٤- يقرأ نصوصا تتراوح ما بين ٣٠٠- ٥٠٠ كلمة قراءة سليمة .

الكفاية (٤) : يقرأ النص الأدبي قراءة تذوّقيّة محدّدا ما فيه من جوانب جمالية .
مكوّناتها : ١- يوضّح القيمة الفنية للألفاظ والعبارات .
٢- يميّز الأسلوب الجميل من بين الأساليب الأخرى مع التعليل .
١١ - يشرح الصور الجمالية في النص محدّدا مواطن الجمال فيها .
١٢ - يستنتج المميّزات الفنّيّة العامّة للنّصّ .

مخرجات التعلم :
١ -يقيّم المستوى الفنّي لبنية النّص المعجميّة .
٢ -ينقد المستوى الأسلوبي للنّصّ محدّدا مواطن الجمال وما دون ذلك .
٣ -يبيّن آثار الصّور الجمالية وتداعياتها من خلال شرحها وتفصيلها .
٤ -يحدّد قيمة البعد الجمالي في درجة التّفاعل مع النّصّ .

الكفاية (٥) : يقرأ قراءة وظيفية مستخدما آلياتها استخداما صحيحا .
مكوّناتها : ١- يستخدم المعاجم اللّغوية استخداما صحيحا .

٢- يوظف بطاقات المكتبة توظيفا سليما .
٩ -يقرأ الجداول والفهارس والخرائط قراءة صحيحة .
١٠ - يوظف المراجع ودوائر المعارف توظيفا سليما .
١١ - يلخّص النّصّ المقروء محافظا على فكره الأساسيّة .

مخرجات التعلم :

١ -يتعامل مع المعاجم اللغوية كلّ حسب نظام تبويبه.(نظام أبجدي – نظام جذرالاشتقاق- نظام الحقل الدلالي- ...)
٢ -يزور المكتبة بانتظام ، وفق رزنامة زمنية مصمّمة بعناية .
٣ -يعالج الوثائق الصّمّاء والفهارس والجداول البيانية بأسلوب علميّ ناجع يحقّق الهدف ويوفّر الوقت والجهد .
٤ -يغذي أبحاثه ودراساته بما تزخر به المصادر المعرفية من معلومات قيّمة .

رابعا : مجال الكتابة .

الكفاية (١) : يخطط لكتابة موضوع ما مستوفيا عناصر التخطيط المطلوبة .

مكوّناتها : ١- يحدد العناصر الأساسية للموضوع .
٢- يجمع المعلومات والأفكار من مصادرها المختلفة .
٣- يرتب عناصر الموضوع ترتيبا متسلسلا .
٤- ينظّم موضوعه مراعيا المقدمة والعرض والخاتمة .

مخرجات التعلم :

١- يلمّ بميزات الأعمال الكتابيّة : المقال ، والرّسالة ، والقصّة ، ويوظّفها في مخطّطه .
٢- يسترجع ذاكرته من معارف ، ومفردات ، وصور فنيّة لخدمة المطلوب .
٣- يضع الخطوط الأساسيّة للموضوع وفق المطلوب .
٤- يدوّن الملاحظات المناسبة كالشّواهد ، والسّرد ، وغيرها .

الكفاية (٢) : يعبر عن أفكاره وأحاسيسه تعبيرا كتابيا سليما .

مكوّناتها : ١- يستوفي أفكار الموضوع الذي يكتب فيه .
٢- يعزّز أفكاره بشواهد وأدلّة مناسبة .
٣- ينوع أساليبه التعبيرية في الكتابة .
١٣ - يكتب قصة أو خاطرة تجول في ذهنه .
١٤ - يكتب رسالة إخوانيّة مستوفيا عناصرها .
١٥ - يعلّق على الآراء والمواقف مبديا رأية .
١٦ - يوثّق الآراء والأفكار التي يستعين بها .

مخرجات التعلم :

١ -ينفّذ ما صمّم من تخطيط يشمل جميع جوانب الموضوع .

٢ -يستدعي من حافظته ما يناسب أفكاره من حجج عقليّة ونقليّة مقنعة مراعيا الحال والمقام .
٣ -يختار لكلّ موضوع ما بناسبه من أنماط الكتابة ، ويراعي الخصائص الأسلوبية لكلّ نمط منها .
٤ -يمزج بلطف بين الحقيقة والخيال في أبداع قصّة أو خاطرة ويختار لها ما يناسبها من أساليب التعبير الكتابي.
٥ -يتمثّل خصائص الرسائل الإخوانية في كتابة رسالة إخوانية .
٦ -ينقد الآراء والمواقف ، ويفصح كتابيّا عن موقفه ورايه .
٧ -يحترم الملكية الفكرية للآخرين ويحقّق الأمانة العلميّة مجتنبا الانتحال ، ويدرج النّصوص الغائبة التي استنجد بها ضمن النظام المعروف في فنّ الكتابة (الهلالان – الترقيم – الهامش – تمييز الخط بالحجم أو اللّون ... – تصدير او تعقيب - ...)

الكفاية (٣) : يعبر تعبيرا وظيفيا مراعيا أسس هذا التعبير .
مكوّناتها : ١- يملأ استمارة طلب في أمر من أمور الحياة .
٢- يكتب رسالة رسمية مستوفيا عناصرها .
٣- يكتب إعلانا مدرسيا أو بطاقة دعوة أو تهنئة .
٤- يكتب تقريرا عن رحلة أو زيارة أو نحو ذلك .
مخرجات التعلم :
١ -يملأ الخانات والمربعات والفراغات في استمارة رسميّة .
٢ -يميّز عناصر الرسالة الرّسميّة من غيرها ويتقن استعمالها.
٣ -يصمّم بطاقة دعوة أو إعلانا ...
٤ -يستعمل لغة وتصميما خاصّيْن بكتابة تقارير عن رحلة أوزيارة وما شابه .
٥ -يتقن استعمال نظام الإكسل على جهاز الحاسوب .
٦ -يواظب على تدوين مذكّراته الخاصّة بتحديد الزمان واختيارالأسلوب المناسب للحدث ..

الكفاية (٤) : يكتب كتابة خالية من الأخطاء اللغوية .
مكوّناتها : ١- يكتب كتابة خالية من الأخطاء الإملائية .
٢- يكتب كتابة خالية من الأخطاء النحوية .
٣- يستخدم ألفاظا وعبارات فصيحة في كتابته .
٧ -يصوغ الجمل والتراكيب صياغة واضحة وسليمة .

مخرجات التّعلّم :
١ -يستحضر في ذهنه القواعد اللّغوية (الإملاء والنّحو) ليعرض عليها ما يكتبه .
٢ -يميّز - بشكل واضح وآليّ - بين مراجع الألفاظ والعبارات ، فيستعمل منها ما هو فصيح ويستبعد غيره .
٣ -يستلهم في كتاباته أساليب المؤلّفين وطرائقهم ، ويتصرّف في ما يحفظ من كلامهم بشكل سليم .

٤ -ينوّع من استعمال أدوات الرّبط بشكل يناسب المعنى .

الكفاية (٥) : يراعي التنسيق والتنظيم في كتابته بشكل سليم .

مكوّناتها : ١- يكتب العنوان الرئيسي بشكل واضح في مكانه الصحيح .
٢- ينظم الهوامش وبدايات الفقرات .
٣- يكتب بخط واضح تسهل قراءته .
٤- يقسّم الموضوع الكتابي إلى أجزائه المعروفة : المقدمة والعرض والخاتمة .
٥- يحاكي النماذج الجيدة من الخطوط العربية .
١٤ - يوظف علامات الترقيم في كتابته توظيفا سليما .

مخرجات التعلم : ١- يلمّ بمفهوم العنوان ، ويختاره ، ويضعه في مكانه الصّحيح .
٢- يقسّم الموضوع المكتوب إلى فقرات وفق حدودها الصّحيحة.
٣- يحيط علما بميزات كلّ من خطّ النّسخ والرّقعة .
٤- يراعي في كتابه حجم الحرف وصورته الصّحيحة .
٥- يكتب بخطيّ النّسخ والرّقعة .
٦- يوضّح مفهوم كلّ من النّقطة ، والفاصلة ، والنّقطتين الرّئيسيّتين والتّفقير .
٧- يحيط معرفة بمواطن وضع علامات التّرقيم : النّقطة ، والفاصلة، والنّقطتين الرّئيسيّتين ، ويضعها وفق تلك المواطن .

Grade 10

منهاج اللغة العربيّة

كفايات اللغة العربيّة (اللغة الأولى) الأساسيّة - الصّفّ العاشر .

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أوّلا : مجال الاستماع .

الكفاية (١) : يوظّف مهاراته الحسّية والمعرفيّة لفهم مضمون الخطاب المسموع وتحليله .

مكوّناتها : ١- يصغي باهتمام إلى مضمون الخطاب المسموع وما يبديه الآخرون من آراء وتعليقات حول موضوع معيّن .
٢- يظهر التزاما واضحا بآداب الاستماع (لا يقاطع المتحدّث ولا يتدخل دون استئذان) .
٣- يميّز المكونات الأساسية للخطاب المسموع استنادا إلى دلالاتها الفكرية والمعنوية فيه .
٤- يفهم التعليمات الموجّهة إليه في التكليف الشفوي ويستوفي الاستجابة لها على نحو مناسب .
٥- يبدي ردود أفعال (قولية وإيمانية) دالة على فهمه مكونات الخطاب وتفاعله مع وضعية التواصل .
٦- يعدّل- عند الاقتضاء - خطة تواصله مع المسموع مستجيبا لمتطلبات وضعية التواصل ومراعيا حسن الإصغاء إلى الآخر .

مخرجات التعلم : ١- يتقن مهارات الاستماع والإصغاء .
٢- يحدد الأفكار الرئيسة من الفرعية
٣- يراعي قدرات المتلقين أثناء مخاطبتهم .
٤- يستخدم اللغة المناسبة للخطاب لتناسب الموقف .
٥- يدرك المغزى من الخطاب .

الكفاية (٢) : يوظف قدراته المعرفية ومهاراته اللغوية وخبراته في تأويل الخطاب المسموع ونقده .

مكوّناتها : ١- يقوّم مع التعليل المناسب ما يستمع إليه من نقد أو رأي أو تعليق .
٢- يوازن بين الآراء الواردة في الخطاب بطريقة موضوعية .
٣- يتذوّق ما استمع إليه تذوّقا معلّلا .

مخرجات التعلم : ١- يلمّ بالعناصر الأساسية للألوان الأدبية المختلفة .
٢- يتقن ظواهر بلاغية مختلفة مثل : المحسنات البديعية ، والاستعارات والتشبيه وغيرها .
٣- يوضّح مفهوم كلّ من الطّباق ، والمقابلة والجناس ، ويعيّنهما ، ويبيّن آثار استخدامها .
٤- يستنتج المغزى من الخطاب المسموع .

ثانيا : مجال التحدّث .

الكفاية (١) : يوظف مهاراته الحسّية والحركية والمعرفية لتحقيق التواصل السليم في مقام تواصليّ دالّ .

مكوّناتها : ١- يحدد الهدف من المشاركة في الموقف التواصلي .
٢- ينظّم فكره تنظيما ملائما للهدف ويرتّب الأولويات.
٣- يعبّر عن رأيه بوضوح مستخدما لغة سليمة (صياغة وتركيبا) .

مخرجات التعلم : ١- اختيار موضوع الخطاب المناسب لقدراته .
٢- التمييز بين الفكر الرئيسة والفرعية .
٣- إتقان مهارات لغوية مختلفة : القواعد ، والثراء اللغوي والمعرفي .

الكفاية (٢) : يوظّف معارفه ومهاراته اللغوية وخبراته لتحقيق ثراء وإقناعية لخطابه .

مكوّناتها : ١- يحلّل ما يعرضه من فِكَر ويفسّرها بصورة تلائم مقتضيات الموقف التواصليّ .

٢- يراعي خصائص الخطاب الشفوي لتحقيق الإبلاغ والتأثير في المتلقي.

مخرجات التعلم : ١- يستخدم مصادر المعرفة اللغوية لخدمة الغرض .

٢- يستحضر شواهد وأدلة وبراهين للإقناع .

الكفاية (٣) : يوظّف استراتيجيات الحوار والمناقشة والتفاوض ويراعي آدابها .

مكوّناتها : ١- يخطط للمشاركة في مواقف الحوار والمناقشة ، والتفاوض ، ولعب الأدوار مبرهنا على فهمه لمقام التواصل والتفاعل معه .

٢- يبادر إلى طلب الكلمة وينتظر دوره في الحوار والمناقشة .

٧ -يراعي حدود الحصة الزمنية من الوقت المتاح له للمشاركة في الحوار والمناقشة والتفاوض .

٨ -ينغّم أداءه الصوتي ويلوّن تعبيراته بحسب ردود مقتضيات الموقف التواصلي .

٩ -يعدّ خطة خطابه بحسب ردود فعل المخاطبين ومقام الخطاب .

١٠ - يتحكّم في انفعالاته مظهرا استعداده لتقدير الآراء المخالفة وتفهمها .

مخرجات التعلم : ١- يتقن آداب الحوار .

٢- ينظم وقته ، وأدواته بدقة .

٣- اختيار الألفاظ المناسبة للموقف .

٤- يستعد مسبقا للحوار .

٥- انتظار الدور واجتناب المقاطعة والاستفزاز .

ثالثا : مجال القراءة .

الكفاية (١) : يقرأ النص قراءة منهجيّة استقرائية سليمة (متدرّجة ومتماسكة ومقنعة) مقطعية ومحورية .

مكوناتها : ١- يحدد الغرض من قراءة النص .

٢- يقدم للخطاب تقديما منهجيا وظيفيا .

٣- يقرأ النص قراءة استكشافية للوقوف على عتباته : (العنوان ، والفهرس ، وتاريخ النشر ، والمقدمة ، واسم المؤلف ، وتوصيفه الأجناسي ، والناشر ، وغيرها) .

٤- يؤدّي قراءته بلغة سليمة ومفهومة وواضحة .

٥- يضبط المعنى الإجماليّ للنّص .

١١ - يفكك النص إلى بنيته التكوينية ، ويكشف العلاقات الناظمة لها .

مخرجات التعلم : ١- يعرف مختلف أبعاد النص : البعد الدلالي ، والبعد الجمالي ، ...

٢- يحيط بمراجع النصوص وسياقاتها: (الدينية والحضارية والأدبية)

٣- يجيد توزيع النص إلى مكوناته الجزئية .
٤- يصنف الأفكار حسب وظيفتها في النص .
٥- يربط الدوال بمدلولاتها بعد إدراك وظائفها .

الكفاية (٢) : يوظف معارفه اللغوية ومهاراته التحليلية وخبراته الثقافية في تحليل النص ونقده وتقويمه تقويما معللا .

مكوّناتها : ١- يردّ النص إلى نوعه ، ونمطه ، وجنسه ، ويكشف علاقته بالمذهب الأدبي للكاتب .
٢- يستخلص رؤية الكاتب ومقاصده المرجحة في ضوء فهمه لوظيفة النص .
١٥ - يكوّن موقفا معللا من شكل النص ومحتواه .
١٦ - يستوثق من صحة المعلومات الواردة في النص بالرجوع إلى المصادر والمراجع ذات الصلة بموضوعه .
١٧ - يوازن بين النص وأضرابه موازنة موضوعية .
١٨ - يتذوّق مواطن الجمال في النص تذوّقا معللا .

مخرجات التعلم : ١- يصل إلى المغزى .
٢- يدرك ما تحمله المفردات والتّراكيب من إيحاء ، ودلالات ، ويوظفها في أحكامه وآرائه من خلال إبراز ما فيها دقّة تعبير أو نقيضه .
٣- يقف على مواطن التّشابه والاختلاف بين النّصوص المقروءة مفاضلا بينها على أصول صحيحة ومقنعة .
٤- يقرأ نصوصا غير مشكولة قراءة سليمة .

الكفاية (٣) : يقوّم منهجية تواصله القرائي الصفي موظفا معارفه اللغوية ومهاراته وخبراته في تجويد تواصله القرائي اللاحق .

مكوّناتها : ١- يقدر مدى تحقيق غرضه من قراءة النص .
١٧ - يقوّم - بمساعدة معلمه – منهجية تواصله القرائي الصفي استنادا إلى معايير سلامة الأداء ودقة الفهم .
١٨ - يعدّل منهجية تواصله القرائي عند الاقتضاء طلبا للتجويد .
١٩ - يعدل منهجية تواصله القرائي المعدلة في مواقف قرائية تواصلية جديدة.

مخرجات التعلم : ١- يحدد هدفه من قراءة النص .
٢- تطوير حسه اللغوي (يعرض لغته غلى معارفه اللغوية) .
٣- يعلل ما يعدل من الأخطاء في القراءة مع المعلم .
٤- يقارن قراءته بقراءة القدوة .

رابعا : مجال الكتابة .

الكفاية (١) : يكتب بلغة سليمة وميسرة ومفهومة نصوصا وظيفية وإبداعية

ونقدية .

مكوّناتها : ١- يحدد غايته من الكتابة.
٢- يصمم خطة للكتابة مراعيا فيها وضعية التواصل الكتابي ومقاصده مثل:
- مقام الكتابة : (مدرسي ، إبداعي ، اجتماعي ، وظيفي) .
- المخاطبين : (فرد ، مجموعة ، معارف ، رسميون ، وغيرهم ...) .
- علاقة المكتوب بذات كاتبه : (كتابة ذاتية : سيرة ذاتية ، مذكرات ، خاطرة) أو كتابة موضوعية : (تقرير ، تحقيق ، استطلاع رأي ، وغيرها) .
- غرض الكتابة : (إنجاز مشروع ، وضع مخطط ، تسجيل ملاحظات ، رسالة ، مقال ، تحليل خطاب ...) .

٣- يتخير نمط الخطاب الملائم للمكتوب .
٢٠ - يكتب بلغة ملائمة وميسرة وصحيحة .

مخرجات التعلم : ١- يلمّ بميزات الأعمال الكتابيّة : المقال ، والرّسالة ، والقصّة ، ويوظّفها في مخطّطه .
٢- يستحضر المعارف ، والمفردات ، والصور الفنيّة لخدمة المطلوب .
٣- يخطط للموضوع وفق المطلوب .
٤- يدوّن الملاحظات المناسبة كالشّواهد ، والسّرد ، وغيرها .

الكفاية (٢) : يوظف معارفه اللغوية ومهاراته التقنية في عرض إنتاجه الكتابي مراعيا مقتضيات تنظيم فضاء الكتابة وجمالية العرض .

مكوّناتها : ١- يختار مداخل إنتاج المكتوب ، وطرائق عرضه ، وخاتمته ، بما يلائم مقاصد الموقف الكتابي وسياقه التواصلي .
٢- يراعي تنظيم المكتوب وتنسيقه :
- وضع العناوين الرئيسة والفرعية .
- تنظيم الفقرات والهوامش .
- استخدام علامات الترقيم في مواضعها الصحيحة .
- الكتابة بخط واضح أو بانتقاء نموذج خط مناسب تتيحه أنظمة الحاسوب المتوافرة .
- تنظيم المكتوب في فضاء حامل مناسب(الورقة / الصفحة الإلكترونية) تحقيقا لجمالية العرض ومقروئيته .

٣- يتحكم في حجم المكتوب والزمن المحدد للكتابة .
٤- يكتب بأسلوب يراعي فيه :
- الترابط .
- الاسترسال .
- عدم التكرار.
- التفسير .

- تنوع أساليب التعبير .
- استيفاء عناصر المكتوب .
- تعزيز الأفكار بالشواهد والأدلة المناسبة .

٢١ - يوظف وسائط مختلفة مناسبة للكتابة (معالجة النصوص ، وتخزينها واسترجاعها ، ونشرها ، وتداولها ...) .

مخرجات التعلم : ١- يحيط بتقنيات التقديم للإنتاج الكتابي وعرضه وختمه .
٢- يتقن استخام علامات الترقيم والتوزيع .
٣- يوزع جهوده وفق الوقت المحدد .
٤- يستخدم خبراته في مطالعاته لأعمال كتابية مشابهة .
٥- يستغل تحكمه في استخدام تقنيات الحاسوب (الورد والبور بيوينت والإكسل) .

الكفاية (٣) : يوظف معارفه اللغوية ومهاراته التحليلية في إنتاج مقال أدبي يراعي فيه مقتضيات التحليل والنقد المنهجيين .

مكوّناتها : ١- تحديد المعطى والمطلوب من خلال استثمار العبارات المفتاحية لكل منهما .
٢- بناء مقدمة تتصل بموضوع المقال ، وتصف طريقه.
٣- بناء جوهر الموضوع متضمنا عرض عناصر الموضوع ، والاستشهاد، واستيفاء الفكر المكونة للموضوع .
٤- بناء خاتمة متضمنة خلاصة للفكر المهمة وإبداء الرأي في الموضوع .

مخرجات التعلم : ١- التمييز بين الأفكار الرئيسة والفرعية .
٢- يتخير المدخل الأنسب للمقال .
٣- ترتيب المعطيات الفكرية وفق منطق سببي .
٤- يؤلف بين مختلف الأفكار ويختار أنسبها .

الكفاية (٤) : يوظف معارفه اللغوية ومهارته التحليلية في إنتاج تحليل نص أدبي يراعي فيه مقتضيات التحليل والنقد المنهجيين .

مكوّناتها : ١- التأليف بين عناصر الموضوع .
٢- وصف بنى النص بالتركيز على ادل مكونات النص .
٣- التأليف بين عناصر التحليل .

مخرجات التعلم : ١- يلمّ بمفهوم العنوان ، ويختاره ، ويضعه في مكانه الصّحيح .
٢- يقسّم الموضوع المكتوب إلى فقرات وفق حدودها الصّحيحة.
٣- يحيط علما بميزات كلّ من خطّ النّسخ والرّقعة .
٤- يراعي في كتابته حجم الحرف وصورته الصّحيحة .
٥- يكتب بخطيّ النّسخ والرّقعة .
٦- يوضّح مفهوم كلّ من النّقطة ، والفاصلة ، والنّقطتين الرّئيسيّتين والتّفقير .
٧- يحيط معرفة بمواطن وضع علامات التّرقيم : النّقطة ، والفاصلة،

والنّقطتين الرّئيسيّتين ، ويضعها وفق تلك المواطن .
٨- يلمّ بتقنيات الوص والتخلص ويوظفها في الربط بين عناصر الموضوع .
٩- يركزعلى أكثر البنى ظهورا في النص(مفاضلة وظائفية للبنى) .

الكفاية (٥) يقوّم منهجية تواصله الكتابي موظفا معارفه ومهارته اللغوية وقدراته الحس / حركية لأغراض تجويده .

مكوّناتها : ١- يقوّم منهجية تواصله الكتابي قياسا على مدى تحقق أغراضها .
٢- يوظّف النقد الموجّه إلى إنتاجه الكتابي في :
- تصحيح أخطاء كتابة المسودة الأولى .
- تجويد إنتاجه الكتابي .

٣- يوظّف منهجية تواصله الكتابي المطور في سياق إنتاج كتابي مشابه .

مخرجات التعلم : ١- يصمم تخطيطا للعمل الكتابي قبل إنجازه .
٢- يصوّب أخطاءه اعتمادا على استحضار القواعد اللغوية .
٣- مقارنة إنتاجه بنظائره في نمط كتابيّ معيّن .

Grade 11

منهاج اللغة العربيّة

كفايات اللغة العربيّة (اللغة الأولى) الأساسيّة ـ الصّفّ الحادي عشر .

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أوّلا: مجال الاستماع .

الكفاية (١): يوظف مهاراته الحسية والمعرفية لفهم مضمون الخطاب المسموع وتحليله، بالإضافة إلى المستويات المعيارية المعتمدة في المستوى الأول:

مكوّناتها: ١- يفكك مكونات المشهد الشفوي اللغوية وغير اللغوية ويتخذ منها قرائن لفهم الأغراض والمعاني الصريحة للخطاب.

٢- يتوصل إلى بناء المقتضى الضمني لمقاد الكلام.

٣- يبدي الاهتمام بالتعليق أو النقد الموجه إليه ويستجيب له بوعي.

الكفاية(٢): يوظف قدراته المعرفية ومهاراته اللغوية وخبراته في تأويل الخطاب المسموع ونقده.

مكوّناتها: ١- يستخلص مقاصد المتكلم استناداً إلى فهم نبرات صوته وما يستخدمه من تعبيرات وإيماءات دالة.

٢- يتحرى الدقة في إصدار الحكام، استناداً إلى معايير علمية وموضوعية محددة.

مخرجات التعلم: ١- الربط بين الأفكار.

٢- التحدث بطلاقة.

٣- تساعد الطالب على تلقي المعلومات بطريقة صحيحة.

٤- الفهم العميق لما استمع له.

٥- الاستماع لرأي الطرف الآخر.

ثانياً: مجال الإنتاج (التحدث).

الكفاية (١): يوظف مهاراته الحسية الحركية والمعرفية لتحقيق التواصل السليم في مقام تواصلي دال.

مكوّناتها: ١- يستحضر تجاربه وتجارب الآخرين ذات الصلة بالموضوع ويدمجها في خطابه.

٢- ينتقي الألفاظ والعبارات المناسبة لسياق الموقف التواصلي وموضوعه وللمخاطبين.

الكفاية (٢): يوظف معارفه ومهاراته اللغوية وخبراته لتحقيق ثراء وإقناعية لخطابه.

مكوّناتها: ١- يستخدم لغة سليمة وملاءمة للتعبير عن مقصده (طرح فكرة، أو التعبير عن رأي، أو تعميق النظر في الرأي).

الكفاية (٣): يوظف استراتيجيات الحوار والمناقشة والتفاوض ويراعي آدابها.

مكوّناتها: ١- يوظف استراتيجيات مناسبة للتفاوض وإدارة الاختلاف.

٢- يبدي استعداداً واضحاً للاستفادة من الملاحظات الموجهة إليه في تعديل خطة تواصله.

٣- يوظف عناصر المقام والمقال في إجراء التفاوض والتعقيب على الفكر والآراء المطروحة.

مخرجات التعلم: ١- ترتيب الأفكار.

٢- صياغة الجمل بصورة صحيحة.

٣- الطلاقة والدقة في التعبير عن الرأي.

٤- اكتساب مفردات جديدة.

٥- طرح مختلف الآراء.

ثالثاً: مجال القراءة.

الكفاية (١): يقرأ النص قراءة منهجية استقرائية سليمة (متدرجة ومتماسكة ومقنعة) مقطعية ومحورية.

مكوّناتها: ١- يصف مكونات النص وبنيته العامة وصفاً منهجياً وظيفياً.

٢- يستخلص معاني النص الصريحة والضمنية بالرجوع إلى أبنيته اللغوية وأساليبه الفنية.

٣- يستخدم معارفه الصرفية والنحوية والبلاغية في الكشف عن وظائف العناصر المكونة لبنية النص المقروء.

٤- يضبط قراءته وفقاً لوظائف النص ومقاماته المتنوعة.

الكفاية (٢): يوظف معارفه اللغوية ومهاراته التحليلية وخبراته الثقافية في تحليل النص ونقده وتقويمه تقويماً معللاً.

مكوّناتها: ١- يفهم النص الأدبي ضمن سياقه التاريخي والأدبي والثقافي.

٢- يصل بين بني النص والتقاليد الشعرية والثقافية العربية القديمة أو الحديثة.

٣- يتبين من النصوص المدروسة المظاهر الثقافية والاجتماعية لتطور الأدب العربي.

٤- يتخير مواطن جمالية دالة في النص الأدبي، مبرزاً أثرها في المعنى.

الكفاية (٣): يوظف معارفه اللغوية ومهاراته التحليلية وخبراته الثقافية في تحليل النص، ونقده، وتقويمه تقويماً معللاً.

مكوّناتها: ١- يوظف المعارف اللغوية (الصرفية والنحوية) في الكشف عن المنطق الذي ينبني عليه الخطاب وتنتظم وفقه المعاني.

٢- يتبين وظائف الأساليب البيانية ةالبلاغية في الإفصاح عن مقاصد الخطاب / النص وأغراضه.

٣- يساهم في إثراء القراءة الجماعية للنص / الخطاب.

الكفاية (٤): يقوم منهجية تواصله القرائي الصفي موظفاً معارفه اللغوية ومهاراته وخبراته في تجويد تواصله القرائي اللاحق.

مكوّناتها: ١- يساهم في تقويم قراءات الآخرين تقويماً متوازناً ومعللاً.

٢- يقوم منهجية تواصله القرائي الصفي ويطورها مستفيداً من النقد الموجه إليها ومن قراءات الآخرين.

٣- يتخير بدائل تجويد مناسبة ويعمل على إدماجها في تطوير منهجية تواصله القرائي.

مخرجات التعلم:

١- اكتساب مفردات جديدة وفهم معناها.

٢- التعرف على مواضيع مختلفة ومتنوعة.

٣- النطق والتلفظ بطريقة صحيحة.

٤- الثقة بالنفس.

٥- التأثير على الآخرين.

٦- إدراك الجمال في النصوص المقروءة.

رابعاً: مجال الإنتاج الكتابي.

الكفاية (١): يكتب بلغة سلمية وميسرة ومفهومة نصوصاً وظيفية وإبداعية ونقدية.

مكوّناتها: ١- يتخير الموارد المعرفية الملاءمة لموضوع الكتابة.

٢- يخطط لإدراج الموارد المختارة، ويرتبها في سياغ إنتاجه الكتابي، مراعياً عنصري الترابط والوظيفية.

٣- يوظف المصادر المعرفية والتقنية التي تتحيها محركات البحث الإلكتروني المتعددة الأغراض لإثراء إنتاجه الكتابي.

٤- يستثمر مكتسباته من المواد الدراسية الأخرى في تنويع مصادر إنتاجه الكتابي.

٥- يحيل ظغلى مراجع معينة للاستدال على رأيه في قضية مطروحة أو بيان موقفه منها.

الكفاية (٢): يوظف معارفه اللغوية ومهاراته التقنية في عرض إنتاجه الكتابي مراعياً مقتضيات تنظيم فضاء الكتابة وجمالية العرض.

مكوّناتها: ١- يدمج (عند الاقتضاء) الأشكال والرسوم والخرائط والمدونات النصية الإلكترونية المناسبة في إنتاجه الكتابي إثراء للموضوع وتعزيزاً لتواصله اللغوي المكتوب.

٢- يعد قائمة ثبت المراجع وتنظيم الفهارس، مستنداً إلى قواعد الأنظمة العالمية المستخدمة في مجال التوثيق والفهرسة.

الكفاية (٣): يوظف معارفه اللغوية ومهاراته التحليلية في إنتاج تحليل نص أدبي يراعي فيه مقتضيات التحليل والنقد المنهجيين.

مكوّناتها: ١- ينتج مقالاً أدبياً انطلاقاً من:

- قراءة نص الانطلاق، وبناء فهم معمق لأبرز معانيه وفكره.

٢- تحديد المعطى والمطلوب من خلال استثمار العبارات المفتاحية لكل منهما.

٣- بناء مقدمة تتصل بموضوع المقال وتصف طريقة عرض طريقة عرض القضايا المطروحة فيه، وتحليلها.

٤- بناء جوهر الموضوع متضمناً عرض عناصر الموضوع، والاستشهاد المناسب على كل عنصر وإقامة العلاقات بينها، واستيفاء الفكر المكونة للموضوع.

٥- بناء خاتمة متضمنة خلاصة للفكر ذات الأهمية في الموضوع، والتأليف بينها، وتوسعة آفاق البحث فيه وإثرائه.

الكفاية (٤): يقوم منهجية تواصله الكتابي موظفاً معارفه زمهاراته اللغوية وقدراته الحس / حركية لأغراض تجويده.

مكوّناتها: ١- يقوم منهجية إنجازه المقال الأدبي استناداً إلى مدى استيفاء:

- المكونات الفنية والمضمونية لنص الانطلاق.
- تصميم خطة تحرير المقال.
- منهجية تحرير المقال متضمنة: التخليص، التوسع، الاستدلال وتوظيف الشواهد، التأليف بين الفقرات: الرابط، والاتساق.
- تقويم المقال الأدبي، وإبداء الرأي.

مخرجات التعلم:

١- يكون قادر على فهم ما يطلب منه كتابةً.
٢- يخطط بطريقة صحيحة لأي عمل كتابي يطلب منه.
٣- يكتب بخط واضح مقروء جميل.
٤- يستخدم علامات الترقيم بشكل صحيح.
٥- يعبر عن أفكاره وآرائه بوضوح.
٦- تكون لديه القدرة على إقناع الطرف الآخر بما كتب.
٧- يستند في كتابته على أدلة وبراهين ثابتة وصحيحة.

Grade 12

منهاج اللغة العربيّة

كفايات اللغة العربيّة (اللغة الأولى) الأساسيّة - الصّفّ الثاني عشر.

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أوّلا : مجال الاستماع .

الكفاية (١) :يوظف مهاراته الحسية والمعرفية لفهم مضمون الخطاب المسموع وتحليله .

مكوّناتها : ١- يستخلص الفكرة الأساسية .
٢- يميز الفكرة الأساسية من الفكرة الفرعية .
٣- يرتب الأحداث والفكر بحسب ورودها في النص المسموع .
٤- يعيد سرد المادة المسموعة دون إخلال بالمضمون .
٥- يدرك المغزى من خلال نبرات الصوت وتلوين الأداء .
٦- يلخص المادة المسموعة محافظا على جوهرها .
٧- ينقل رسالة شفوية قصيرة من المتكلم إلى شخص آخر محافظا على صحتها .

مخرجات التعلم : ١- يوظف قدرته على الاستماع والتحدث في التواصل الشفهي الوظيفي.

٢-يصغي باهتمام الى مضمون الخطاب المسموع ومايبديه الآخرون من آراءوتعليقات حول موضوع معين .
٣-يبدي ردود أفعال (قوليةوايمانية)دالةعلى فهمه مكونات الخطاب وتفاعله مع وضعية التواصل .

الكفاية (٢) : يوظف قدراته المعرفية ومهاراته اللغوية وخبراته في تأويل الخطاب المسموع ونقده .

مكوّناتها : ١- يميز الفكر ذات الصلة بالمادة المسموعة من غيرها من الفكر الأخرى .
٢- يبرز أهم الجوانب التي أعجبته في المادة المسموعة محتوىً وأسلوباً .
٣- يبدي رأيه فيما يستمع إليه .
٤- يميز الحقيقة من الرأي في المادة المسموعة .

مخرجات التعلم : ١- يقوم مع التعليل المناسب مايستمع إليه من نقد أورأي أوتعليق .
٢-يستخلص مقاصد المتكلم استنادا إلى فهم نبرات صوته ومايستخدمه من تعبيرات وإيماءات دالة .
٣يدلل منطقيا على رأيه في ترجيح مااستخلصه من مقصد الخطاب .
٤- يتذوق مااستمع إليه تذوقا معللا .

الكفاية (٣) : يلتزم آداب الاستماع .

مكوّناتها : ١- يصغي إلى المتحدث إصغاء جاداً .
٢- يلتزم عدم مقاطعة المتحدث في أثناء الاستماع .

مخرجات التعلم : ١-يظهرالتزاماواضحابآداب الاستماع (لايقاطعالمتحدث ولايتدخل دون استئذان) .
٢-يعدل عند الإقتضاء خطة تواصله مع المسموع مستجيبالمتطلبات وضعية التواصل ومرعياحسن الإصغاءإلى الآخر .

ثانيا : مجال التّحدّث :

الكفاية (١) : يوظف مهاراته الحسية الحركية والمعرفية لتحقيق التواصل السليم في مقام تواصلي دال .

مكوّناتها : ١- يعرض أفكاره عرضا منظما ومتسلسلا .
٢- يستخدم اللغة الفصيحة في حديثه .
٣- يوظّف خبراته اللغوية والفكرية السّابقة عند عرض أفكاره .

مخرجات التعلم : ١- يعبر عن رأيه بوضوح مسخدما لغة سليمة .
٢-يستحضرتجاربه وتجارب الآخرين ذات الصلة بالموضوع ويدمجها في خطابه .
٣-يوظف الموارد الأدبية والثقافيةوالاجتماعية المتنوعةلإثراء خطابه .

الكفاية (٢)يوظف معارفه ومهاراته اللغوية وخبراته لتحقيق ثراء وإقناعية لخطابه.

مكوّناتها : ١- يتحدّث بصوت واضح معتدل .
٢- ينوّع نبرات الصّوت بحسب متطلبات الموقف .
١٢ - يوظّف لغة الإشارات في أثناء التحدث بطريقة تساعد على تأكيد المعنى.
١٣ - يلقي نصّا أدبيا إلقاء سليما معبّرا .

مخرجات التعلم : ١-يستخدم لغة سليمة وملائمة للتعبيرعن مقصده .

٢-يستدل على مقاصد الخطاب مستخدما الحجج والبراهين المناسبة .

الكفاية (٣) : يوظف استراتيجيات الحوار والمناقشة والتفاوض ويراعي آدابها .

مكوّناتها : ١- يطرح أسئلة تتسم بالوضوح والسلامة اللغوية .

٢- يعلّق على الآراء والأفكار التي تطرح في مواقف الحوار والمناقشة .

مخرجات التعلم : ١-يخطط للمشاركة في مواقف الحوار والمناقشة والتفاوض .

٢-يراعي حدود الحصة الزمنية من الوقت المتاح له للمشاركة .

٣-يحسن صوته ويلون تعبيراته بحسب مقتضيات الموقف التواصلي. .

الكفاية (٤) : يلتزم آداب الحوار والمناقشة بطريقة تظهر استعداده وجدّيته .

مكوّناتها : ١- يظهر الاحترام للآخرين في أثناء الحديث .

٢- يتّبع النّظام عند طلب الاستفسار .

٣- يتقبّل آراء الآخرين دون تعصّب لرأيه .

٤- يظهر الثّقة بالنّفس دون تردّد أو خجل في أثناء حديثه .

مخرجات التعلم : ١-يتحكم في انفعالاته,مظهرا استعداده لتقدير الآراءالمخالفة وتفهمها .

٢-يعدل خطة خطابه بحسب ردودفعل المخاطبين ومقام الخطاب .

٣-يصقل موهبة الخطابة لديه للتوصل الى مفاهيم ذات آ فاق أوسع ومدارك جمة.

١٤ - يعترف بأفضال غيره عليه ليعزّزقيم الانتماء والمواطنة في المخاطبين .

١٥ - يبدي استعدادا جيدا لمواجهة الجمهورومخاطبته بطلاقة وبدون خوف أوتردد .

١٦ - يعد نفسه لمواجهة مواقف الحياة المختلفة التي تقتضي التعبير بالكلام بالدرجة الأولى .

١٧ - ينمي قدرته على إقناع الآخرين بأفكاره وتعميق روح التآلف بين الزملاء في المدرسة .

ثالثا : مجال القراءة

الكفاية (١) : يقرأ النص قراءة منهجية استقرائية سليمة (متدرجة ومتماسكة ومقنعة) مقطعية ومحورية .

مكوناتها : ١- ينطق الحروف والكلمات نطقا سليما .

٢- يراعي الضبط اللغوي الصحيح في أثناء القراءة .

٣- يتمثّل المعنى في أثناء القراءة .

٤- يراعي متطلبات الوصل والوقف في أثناء القراءة .

مخرجات التعلم : ١ - يستخدم اللغة العربية استخداما سليما .

٢ - يضبط أواخر الكلمات ضبطا صحيحاأثناء القراءة ويذكرالسبب .

٣- يبني المعنى على المبنى .

٤- يحدد القرض من قراءة النص

٥- يظهر التزاماواضحا بآداب القراءة(لايقاطع ولايتدخل دون استئذان).

٦ - يعدل عند الاقتضاءخطة تواصله مع المقروءمستجيبا لمتطلبات وضعية القراءة ومراعياحسن الاصغاء إلى الآخر.

الكفاية (٢) :يوظف معارفه اللغوية ومهاراته التحليلية وخبراته الثقافية في تحليل النص ونقده وتقويمه تقويما معللا .

مكوّناتها : ١- يحدد الفكرة الأساسيّة .
٢- يحدّد الفكر الفرعيّة .
٣- يوضّح نوع العلاقة بين الفكر في النّص المقروء .
١٥ - يستخلص معاني المفردات من خلال السّياق .
١٦ - يستنتج القيم التي يتضمّنها النّص .

مخرجات التعلم : ١- يفهم النّص ضمن سياقه التاريخي والأدبي والثقافي .
٢-يرد النّص إلى نوعه ونمطه وجنسه ويكشف علاقته بالكاتب .
٣- يتخير مواطن جمالية دالة في النّص,مبرزا أثرها في المعنى .
٤ - يستخلص رؤية الكاتب ومقاصده في ضوءفهمه للنّص .
٥ – يميز بين نوع النّص وأنواع الفنون الأدبية الأخرى .
١٧ - يكون موقفا معللا من شكل النص ومحتواه .
١٨ - يوازن بين النص وأضرابه موازنة موضوعية .
١٩ - يساهم في اثراء القراءة الجماعية للنص\الخطاب .

٩ –يقرأآثارمتكاملة (روائية,قصصية, ومسرحية)من الأدبين العربي والعالمي .

الكفاية (٣) : يقوم منهجية تواصله القرائي الصفي موظفا معارفه اللغوية ومهاراته وخبراته في تجويد تواصله القرائي اللاحق .

مكوّناتها : ١- يبدي رأيه في المادة المقروءة .
٢- يحدّد الفكر والأدلّة التي قد لا تتصل بموضوع النص .
١٩ - يوازن بين رأيين أو فكرتين في النص المقروء .

مخرجات التعلم : ١- يصل إلى المغزى .
٢- يدرك ما تحمله المفردات والتّراكيب من إيحاء ، ودلالات ، ويوظفها في أحكامه وآرائه من خلال إبراز ما فيها دقّة تعبير أو نقيضه .
٣- يقف على مواطن التّشابه والاختلاف بين النّصوص المقروءة مفاضلا بينها على أصول صحيحة ومقنعة .
٢٠ - يقرأ نصوصا تتراوح ما بين ٣٠٠- ٥٠٠ كلمة قراءة سليمة .
٢١ - يساهم في تقويم قراءات الآخرين معللاذلك .

الكفاية (٤) : يقرأ النص الأدبي قراءة تذوّقيّة محدّدا ما فيه من جوانب جمالية .

مكوّناتها : ١- يوضّح القيمة الفنية للألفاظ والعبارات .
٢- يميّز الأسلوب الجميل من بين الأساليب الأخرى مع التعليل .
٢٢ - يشرح الصور الجمالية في النص محدّدا مواطن الجمال فيها .

مخرجات التعلم : ١- يتبين وظائف الأساليب البيانية والبلاغية في الإفصاح عن

مقاصدالخطاب\النص وأغراضه .
٢- يتذوق مواطن الجمال في النّص تذوقا معللا.
٣-يكوّن نصوص من تأليفه (من ٥الى ٧اسطر)بها صورجمالية .
٤-يميز الأسلوب الجميل من بين الأساليب .

الكفاية (٥) : يقرأ قراءة وظيفية مستخدما آلياتها استخداما صحيحا .

مكوّناتها : ١- يستخدم المعاجم اللغوية استخداما صحيحا .
٢- يوظف بطاقات المكتبة توظيفا سليما .
١٢ - يقرأ الجداول والفهارس والخرائط قراءة صحيحة .
١٣ - يوظف المراجع ودوائر المعارف توظيفا سليما .

مخرجات التعلم : ١-يقوّم مع التعليل المناسب مايقرأ ويتقبل مايوجه إليه من نقد أو رأي أوتعليق .
٢-يعّرب نصوصا باللغة الانجليزية إلى لغته الأم.
٣-يبدي اهتماماللمشاركة في المسابقات الأدبية(محلية,دولية,عالمية) .

رابعا : مجال الكتابة .

الكفاية (١) : يكتب بلغة سليمة وميسرة ومفهومة نصوصا وظيفية وابداعية ونقدية .

مكوّناتها : ١- يحدد العناصر الأساسية للموضوع .
٢- يجمع المعلومات والأفكار من مصادرها المختلفة .
٣- يرتب عناصر الموضوع ترتيبا متسلسلا .
٤- ينظّم موضوعه مراعيا المقدمة والعرض والخاتمة .

مخرجات التعلم : ١- يلمّ بميزات الأعمال الكتابيّة : المقال ، والرّسالة ، والقصّة ، ويوظّفها في مخطّطه .
٢- يسترجع ذاكرته من معارف ، ومفردات ، وصور فنيّة لخدمة المطلوب .
٣- يضع الخطوط الأساسيّة للموضوع وفق المطلوب .
١٤ - يدوّن الملاحظات المناسبة كالشّواهد ، والسّرد ، وغيرها .
١٥ - يوظف علامات الترقيم .
١٦ - يستخدم المعجم استخداما صحيحا .

الكفاية (٢) : يوظف معارفه اللغوية ومهاراته التقنية في عرض انتاجه الكتابي مراعيا مقتضيات تنظيم فضاء الكتابة وجمالية العرض.

مكوّناتها : ١- يستوفي أفكار الموضوع الذي يكتب فيه .
٢-يعزّز أفكاره بشواهد وأدلّة مناسبة .
٣- ينوع أساليبه التعبيرية في الكتابة .
٢٣ - يكتب قصة أو خاطرة تجول في ذهنه .
٢٤ - يكتب رسالة إخوانيّة مستوفيا عناصرها .

مخرجات التعلم : ١- يحددغايته من الكتابة .
٢-يصمم خطة للكتابة

٣-يستخدم ألفاظ وعبارات معينة في كتابته .

الكفاية (٣) : يوظف معارفه اللغوية ومهاراته التحليلية في انتاج مقال أدبي يراعي فيه مقتضيات التحليل والنقد المنهجيين .

مكوّناتها : ١- يملأ استمارة طلب في أمر من أمور الحياة .
٢- يكتب رسالة رسمية مستوفيا عناصرها .
٣- يكتب إعلانا مدرسيا أو بطاقة دعوة أو تهنئة .
٤- يكتب تقريرا عن رحلة أو زيارة أو نحو ذلك .

مخرجات التعلم : ١- يتخيرالمواردالمعرفية الملائمة لموضوع كتابته .
٢-يرتب انتاجه الكتابي مراعياعنصري الترابط الوظيفية .
٣-يوظف المصادر المعرفية والتقنية لاثراء انتاجه الكتابي .
٤-يستثمرمكتسباته من الموادالدراسيةالأخرىفي تنويع مصادرانتاجه الكتابي .

الكفاية (٤) : يوظف معارفه اللغوية ومهاراته التحليلية في انتاج تحليل نص أدبي يراعي فيه مقتضيات التحليل والنقد المنهجيين .

مكوّناتها : ١- يكتب كتابة خالية من الأخطاء الإملائية .
٢- يكتب كتابة خالية من الأخطاء النحوية .
٣- يستخدم ألفاظا وعبارات فصيحة في كتابته .
٤- يصوغ الجمل والتراكيب صياغة واضحة وسليمة .

الكفاية (٥) : يقوم منهجية تواصله الكتابي موظفا معارفه ومهاراته اللغوية وقدراته الحس / حركية لأغراض تجويد.

مكوّناتها : ١- يكتب العنوان الرئيسي بشكل واضح في مكانه الصحيح .
٢- ينظم الهوامش وبدايات الفقرات .
٣- يكتب بخط واضح تسهل قراءته .
٢٢ - يقسّم الموضوع الكتابي إلى أجزائه المعروفة : المقدمة والعرض والخاتمة .
٢٣ - يحاكي النماذج الجيدة من الخطوط العربية .
٢٤ - يوظف علامات الترقيم في كتابته توظيفا سليما .

مخرجات التعلم : ١- يلمّ بمفهوم العنوان ، ويختاره ، ويضعه في مكانه الصّحيح .
٢- يقسّم الموضوع المكتوب إلى فقرات وفق حدودها الصّحيحة.
٣- يحيط علما بميزات كلّ من خطّ النّسخ والرّقعة .
٤- يراعي في كتابه حجم الحرف وصورته الصّحيحة .
٥- يكتب بخطيّ النّسخ والرّقعة .
٦- يوضّح مفهوم كلّ من النّقطة ، والفاصلة ، والنّقطتين الرّئيسيّتين والتّفقير .
٧- يحيط معرفة بمواطن وضع علامات التّرقيم : النّقطة ، والفاصلة، والنّقطتين الرّئيسيّتين ، ويضعها وفق تلك المواطن .

Islamic Studies

Grade 7

منهاج التّربية الإسلاميّة
كفايات التّربية الإسلاميّة الأساسيّة - الصّفّ السّابع .
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أوّلا : مجال القرآن الكريم .
<u>الكفاية</u> (١) : يتلو السور والآيات القرآنية المقررة تلاوة صحيحة.

مكوّناتها : ١- ينطق الحروف والكلمات نطقا صحيحا.
٢- يراعي ضبط أواخر الكلمات بالشكل.
٣- يطبق أحكام التجويد المقررة.
٤ - يحسن الاستماع إلى القرآن الكريم **، وتلاوة الآيات المقررة تلاوة مرتلة.**

<u>مخرجات التعلم</u> : ١- تنمية القدرة اللغوية وزيادة الثروة اللفظية لدى الطالب.
2 – يعرف أحكام التجويد التي تعين على حسن التلاوة .
3 – **رفع مستوى أداء الطالب في تلاوة القرآن الكريم** .
٤ - تطبيق أحكام التجويد وحسن الترتيل لقراءة القرآن بالكيفية الصحيحة.

<u>الكفاية (٢)</u> : يحفظ السور والآيات القرآنية المقررة حفظا سليما.
مكوّناتها : ١- يقرأ الآيات القرآنية المقررة قراءة صحيحة.
٢- يحفظ الآيات القرآنية المقررة حفظا خاليا من الأخطاء.
<u>مخرجات التعلم</u> : ١- إتقان الطالب لحفظ القرآن ، لسرعة استرجاعه، وقوة استظهاره والاستدلال به.

٢- إعداد وتأهيل الطالب لقراءة القرآن الكريم بإتقان

٣ – غرس التقرب إلى الله بتلاوة وحفظ القرآن للحصول على عظيم الأجر والثواب.

<u>الكفاية (٣)</u> : يعبّر كتابة عن المعنى الإجمالي للسور والآيات المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.

٢- يوضّح المعنى الإجمالي للآيات.

٣- يستنتج الآداب والأحكام الشرعية المستفادة من الآيات.

<u>مخرجات التعلم</u> : ١- ربط الطالب بالعلم الشرعي بتعليمه القرآن وعلومه والتفسير.

٢ - يعرف قدرا مناسبا من علوم القرآن الكريم.

٣ – يستوعب مفهوم **عالمية الدعوة الإسلامية و يعرف مكانة القرآن الكريم .**

<u>الكفاية (٤)</u> : يتعرف على بعض علوم القرآن الكريم .

مكوّناتها : ١- يبين المقصود بعلوم القرآن الكريم المقررة.

٢- يستنتج فوائد علوم القرآن التي درسها.

<u>مخرجات التعلم:</u> ١ - يعتز بالإسلام وعالمية رسالته **، ويسعى إلى تحقيق مبادئه.**

٢ - يحب القرآن الكريم ويعظمه **، ويقبل على تلاوته ، ويعمل بما جاء فيه.**

٣ - تقوية الدافع الذاتي لدى الطالب للعمل بالقرآن وربط العلم بالعمل.

ثانيا : مجال الحديث الشّريف :

<u>الكفاية (١)</u> : يحفظ الأحاديث الشريفة المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الأحاديث الشريفة المقررة قراءة صحيحة.

٢- يحفظ الأحاديث الشريفة المقررة حفظا خاليا من الأخطاء.

مخرجات التعلم : ١- تشجيع الطالب على اكتساب المعرفة وتحصيل العلم.

٢ - التقرب إلى الله ورسوله والانصياع لأوامر الشرع.

<u>الكفاية (٢)</u> : يعبر كتابة عن المعنى الإجمالي للأحاديث الشريفة المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.

٢- يوضّح المعنى الإجمالي للأحاديث.

٣ - يستنتج الآداب والأحكام الشرعية المستفادة من الأحاديث.

<u>مخرجات التعلم</u> : ١- تربية الوازع الدينى.

٢ – موازنة دقيقة بين الحقوق والواجبات فهي تتضمن في محتوياتها تنشئة وتكوين الإنسان المؤمن الصالح العابد لربه العارف بنفسه.

٣ – يتعرفوا على شؤون دينهم وإرساء القيم الدينية والخلقية فى نفوسهم ليشبوا على طاعة الله والعمل الصالح الذى ينفعهم وينفع مجتمعهم .

ثالثا : مجال العقيدة .

الكفاية (١) : يتعرف بأحكام العقيدة الإسلامية المقررة .

مكوناتها : ١- يحدد معنى المفاهيم والمصطلحات العقدية المقررة.

٢- يوضّح الأحكام الشرعية المتعلقة بها.

٣- يستنتج أثر الالتزام بها في حياته.

مخرجات التعلم : ١- يفهم الظواهر الاجتماعية

٢ – يميز بين المعتقدات الصحيحة **والباطلة.**

٣ – ينبذ كل ما يتعارض مع العقيدة الإسلامية من بدع وخرافات.

٤ – تنمية الإيمان وتقوية العلاقة بين الإنسان وخالقه.

رابعا : مجال العبادات .

الكفاية (١) : يتعرف أحكام العبادات المقررة .

مكوّناتها : ١- يحدد معنى المفاهيم والمصطلحات الفقهية .

٢- يوضّح الأحكام الشرعيّة للعبادات المقررة.

٣- يبيّن كيفية تطبيق هذه العبادات.

مخرجات التعلم : ١- يعرف بعض أحكام العبادات.

٢- يستنتج الآثار التربوية للعبادات والتشريعات الإسلامية.

٣- يحب العبادات، ويواظب عليها.

٤ يلتزم بأداء العبادات المفروضة استجابة لأمر الله **تعالى، وطلبا لمرضاته.**

خامسا : مجال السيرة والشخصيات .

الكفاية (١) : يستخلص مواطن القدوة من سيرة الرسول والصحابة .

مكوّناتها : ١- يلخص المواقف المقررة من سيرة الرسول والصحابة .

٢- يستنتج أبرز صفات الرسول والصحابة من خلال الموضوعات المقررة.

٣- يستنبط الدروس والعبر من حياة الرسول والصحابة .

مخرجات التعلم : ١- يعرف جوانب من السيرة النبوية **، وسيرة الصحابة الكرام.**

٢- يهتم بسنة النبي.

٣- أن يتعلم ويعي مسؤوليته اتجاه الآخرين ليتطابق ما تعلمه مع فعله الواقعي وتعامله مع فعله الواقعي وتعامله مع أفراد مجتمعه.

٤- تهذيب الخلق وإعلاء الدوافع والارتقاء بالسلوك الإنساني.

سادسا : مجال الأخلاق والتهذيب .

الكفاية (١) : يتعرف الأخلاق والآداب الإسلامية المقررة .

مكوّناتها : ١- يحدد معاني المفاهيم والمصطلحات .

٢- يبيّن الأحكام الشرعيّة المتعلقة بها .

٣- يستنتج أثر الالتزام بها في حياته .

مخرجات التعلم : ١- يفهم قيم الإسلام وآدابه النفسية والاجتماعية **، وقيمه ذات الطابع العالمي.**

٢- يعرف التحديات والأمراض الاجتماعية المعاصرة وموقف الإسلام منها.

٣- يقوم الأنماط السلوكية والعادات المعاصرة في ضوء قيم الإسلام الخالدة.

٤- يتحلى بالأخلاق الحميدة، والصفات **الفاضلة. ويكتسب آداب السلوك الاجتماعي المنبثق عن الإسلام.**

Grade 8

منهاج التّربية الإسلاميّة
كفايات التّربية الإسلاميّة الأساسيّة - الصّفّ الثامن.

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أوّلا : مجال القرآن الكريم .

الكفاية (١) : يتلو السور والآيات القرآنية المقررة تلاوة صحيحة.

مكوّناتها : ١- ينطق الحروف والكلمات نطقا صحيحا.
٢- يراعي ضبط أواخر الكلمات بالشكل.
٣- يطبق أحكام التجويد المقررة.

مخرجات التعلم : ١-يقرأالآيات قراءة تجويد واعية.
٢-يتلو الآيات مراعيا آداب التلاوة السليمة.
٣-يشكل أواخر الكلمات بشكل سليم قدر الإمكان.

الكفاية (٢) : يحفظ السور والآيات القرآنية المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الآيات القرآنية المقررة قراءة صحيحة.
٢- يحفظ الآيات القرآنية المقررة حفظا خاليا من الأخطاء.

مخرجات التعلم : ١-يصغي بإمعان للقراءة القدوة(شريط لقارئ ، معلمة،طالب مجيد أحكام التجويد)
٢-يردد قراءة الآيات بعينيه ثم بشفتيه بنفس الآلية المسموعة.

الكفاية (٣) : يعبّر كتابة عن المعنى الإجمالي للسور والآيات المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للآيات.
٣- يستنتج الآداب والأحكام الشرعية المستفادة من الآيات.

مخرجات التعلم : ١-يفسر ويوضح معاني المفردات الصعبة من تفسير القرآن.

٢-يحدد المضمون بشرح الآيات القرآنية بأسلوبه.
٣-يطبق الآداب والأحكام الشرعية في حياته.

الكفاية (٤) : يتعرف على بعض علوم القرآن الكريم .

مكوّناتها : ١- يبين المقصود بعلوم القرآن الكريم المقررة.
٢- يستنتج فوائد علوم القرآن التي درسها.

ثانيا : مجال الحديث الشّريف :

الكفاية (١) : يحفظ الأحاديث الشريفة المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الأحاديث الشريفة المقررة قراءة صحيحة.
٢- يحفظ الأحاديث الشريفة المقررة حفظا خاليا من الأخطاء.

مخرجات التعلم : ١- أن يقدرأهمية الحديث النبوي في توضيح الأحهم الشرعية.
٢-أن يكتب الأحاديث الشريفة بخط واضح ومرتب خاليا من الأخطاء.

الكفاية (٢) : يعبر كتابة عن المعنى الإجمالي للأحاديث الشريفة المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للأحاديث.
٣ - يستنتج الآداب والأحكام الشرعية المستفادة من الأحاديث.

مخرجات التعلم : ١-يفسرمعاني الكلمات الواردة في نص الحديث.
٢- أن يتخذ من الأحاديث النبوية نهجا وأنموذجا محفوظا يسير عليه في حياته.
٣-أن يعين القضايا المطروحة ويناقش ويصدر الحكم عليها.

ثالثا : مجال العقيدة .

الكفاية (١) : يتعرف بأحكام العقيدة الإسلامية المقررة .

مكوناتها : ١- يحدد معنى المفاهيم والمصطلحات العقيدية المقررة.
٢- يوضّح الأحكام الشرعية المتعلقة بها.
٣- يستنتج أثر الالتزام بها في حياته.

مخرجات التعلم : ١-أن يعرف ويدرك المفاهيم والمصطلحات المختلفة.
٢-أن يكون لديه القدرة على إعطاء رأي الإسلام في الأحكام .
٣-أن يحاول الالتزام بها وتطبيقها في تصرفاته وسلوكاته.

رابعا : مجال العبادات .

الكفاية (١) : يتعرف أحكام العبادات المقررة .

مكوّناتها : ١- يحدد معنى المفاهيم والمصطلحات الفقهية .
٢- يوضّح الأحكام الشرعيّة للعبادات المقررة.
٣- يبيّن كيفية تطبيق هذه العبادات.

مخرجات التعلم : ١- أن يعطي تعريفا سليما شرعا للمصطلحات الجديدة.
٢-أن يميز الأحكام الشرعية للعبادات ويحدد يفسرها
٣- أن يطبق ويؤدي قدر الإمكان تلك العبادات.

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خامسا : مجال السيرة والشخصيات .

الكفاية (١) : يستخلص مواطن القدوة من سيرة الرسول والصحابة .

مكوّناتها : ١- يلخص المواقف المقررة من سيرة الرسول والصحابة .

٢- يستنتج أبرز صفات الرسول والصحابة من خلال الموضوعات المقررة.

٣- يستنبط الدروس والعبر من حياة الرسول والصحابة .

مخرجات التعلم : ١- أن يتحدث بأسلوبه عن المضمون الإجمالي للمواقف المقررة.

٢-أن يقتدي بالقول والفعل في تصرفاته التزاما بسيرة النبي.

٣-أن يقدر دور الرسول وآله وصحبه الأخيار في رسم الطريق السليم في حياتنا.

٤-أن ينمو لديه شعور الاعتزاز بدين الإسلام وانتماءهلأمة محمد (ص)

سادسا : مجال الأخلاق والتهذيب .

الكفاية (١) : يتعرف الأخلاق والآداب الإسلامية المقررة .

مكوّناتها : ١- يحدد معاني المفاهيم والمصطلحات .

٢- يبيّن الأحكام الشرعيّة المتعلقة بها .

٣- يستنتج أثر الالتزام بها في حياته

مخرجات التعلم :١- أن يعطي أمثلة على أخلاق محمودة وأخرى مذمومة واقعية وربطها مع الأخلاق والآداب المقررة.

٢-أن يذكر فوائد وأضرار الامتثال والابتعاد عنها.

٣- أن يبدي رأيه في الالتزام بالآداب والأخلاق المحمودة في حياتنا.

Grade 9

منهاج التّربية الإسلاميّة

كفايات التّربية الإسلاميّة الأساسيّة - الصّفّ التاسع

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أوّلا : مجال القرآن الكريم .

الكفاية (١) : يتلو السور والآيات القرآنية المقررة تلاوة صحيحة.

مكوّناتها : ١- ينطق الحروف والكلمات نطقا صحيحا.
٢- يراعي ضبط أواخر الكلمات بالشكل.
٣- يطبق أحكام التجويد المقررة.

مخرجات التعلم : ١- أن يتفكر معاني الآيات أثناء القراءة.
٢-أن يتلو الآيات مراعيا آداب التلاوة السليمة.
٣-أن يتقن التلاوة بصوت واضح ومرتفع.

الكفاية (٢) : يحفظ السور والآيات القرآنية المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الآيات القرآنية المقررة قراءة صحيحة.
٢- يحفظ الآيات القرآنية المقررة حفظا خاليا من الأخطاء.

مخرجات التعلم : ١-أن يصغي بإمعان للقراءة القدوة(شريط لقارئ ، معلمة،طالب مجيد أحكام التجويد)
٢-أن يردد قراءة الآيات بعينيه ثم بشفتيه بنفس الآلية المسموعة.

الكفاية (٣) : يعبّر كتابة عن المعنى الإجمالي للسور والآيات المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للآيات.
٣- يستنتج الآداب والأحكام الشرعية المستفادة من الآيات.

مخرجات التعلم : ١-أن يورد المعنى الدقيق لمعاني المفردات الصعبة.
٢-يتقمص الدور في تفصيل الأحكام المستفادة من الآيات.
٣-يطبق الآداب والأحكام الشرعية في حياته.

الكفاية (٤) : يتعرف على بعض علوم القرآن الكريم .
مكوّناتها : ١- يبين المقصود بعلوم القرآن الكريم المقررة.
٢- يستنتج فوائد علوم القرآن التي درسها.
مخرجات التعلم: ١-أن يعلل ويربط سبب تسمية السور.
٢-أن يعرف رواة الأحاديث وأسباب النزول.
ثانيا : مجال الحديث الشّريف :
الكفاية (١) : يحفظ الأحاديث الشريفة المقررة حفظا سليما.
مكوّناتها : ١- يقرأ الأحاديث الشريفة المقررة قراءة صحيحة.
٢- يحفظ الأحاديث الشريفة المقررة حفظا خاليا من الأخطاء.
مخرجات التعلم : ١- أن يرتقي في قراءة خالية من الأخطاء للأحاديث النبوية.
٢-أن يكتب الأحاديث الشريفة بخط واضح ومرتب خاليا من الأخطاء.
الكفاية (٢) : يعبر كتابة عن المعنى الإجمالي للأحاديث الشريفة المقررة.
مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للأحاديث.
٣ - يستنتج الآداب والأحكام الشرعية المستفادة من الأحاديث.

مخرجات التعلم : ١-أن يكتشف ويتوصل إلى معاني الكلمات الواردة في نص الحديث.
٢- أن يتفكر ويتبصر المرامي المرجوة من المضمون الإجمالي.
٣-أن يختبر فهمه ويلخص المعنى الإجمالي لما تناولته الأحاديث كتابة.
ثالثا : مجال العقيدة .
الكفاية (١) : يتعرف بأحكام العقيدة الإسلامية المقررة .
مكوناتها : ١- يحدد معنى المفاهيم والمصطلحات العقيدية المقررة.
٢- يوضّح الأحكام الشرعية المتعلقة بها.
٣- يستنتج أثر الالتزام بها في حياته.
مخرجات التعلم : ١-أن يعرف ويدرك المفاهيم والمصطلحات المختلفة.
٢-أن يربط واقعه المجتمعي ويوازنه مع الأحكام الشرعية.
٣-أن يهتم بالالتزام فيها وتطبيقها في تصرفاته وسلوكاته.
رابعا : مجال العبادات .
الكفاية (١) : يتعرف أحكام العبادات المقررة .
مكوّناتها : ١- يحدد معنى المفاهيم والمصطلحات الفقهية .
٢- يوضّح الأحكام الشرعيّة للعبادات المقررة.
٣- يبيّن كيفية تطبيق هذه العبادات.
مخرجات التعلم : ١- أن يبرز فهما سليما شرعيا للمصطلحات الجديدة.
٢-أن يثبت رأي الإسلام بالأحكام الشرعية للعبادات بالبرهان.
٣- أن يطبق ويؤدي قدر الإمكان تلك العبادات.

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خامسا : مجال السيرة والشخصيات .

الكفاية (١) : يستخلص مواطن القدوة من سيرة الرسول والصحابة .

مكوّناتها : ١- يلخص المواقف المقررة من سيرة الرسول والصحابة .

٢- يستنتج أبرز صفات الرسول والصحابة من خلال الموضوعات المقررة.

٣- يستنبط الدروس والعبر من حياة الرسول والصحابة .

مخرجات التعلم : ١- أن يتأمل في المضمون الإجمالي للمواقف المقررةويعيها.

٢-أن يلتزم بالقول والفعل في تصرفاته بسيرة النبي كأسوة حسنة.

٣-أن يواجه المواقف المحيطة به ويتفاعل فيه . ٤-أن ينمو لديه شعور الاعتزاز بدين الإسلام والانتماء لأمة محمد (ص).

سادسا : مجال الأخلاق والتهذيب .

الكفاية (١) : يتعرف الأخلاق والآداب الإسلامية المقررة .

مكوّناتها : ١- يحدد معاني المفاهيم والمصطلحات .

٢- يبيّن الأحكام الشرعيّة المتعلقة بها .

٣- يستنتج أثر الالتزام بها في حياته

مخرجات التعلم :١- أن يعطي أمثلة على أخلاق محمودة وأخرى مذمومة واقعية وربطها مع الأخلاق والآداب المقررة.

٢-أن يميز الفرق بين فوائد وأضرار الامتثال والابتعاد عنها.

٣- أن يسمو في الالتزام بالآداب والأخلاق المحمودة في ديننا.

٤-أن يحصن نفسه من الانزلاق في منعطفات الرذيلة والسلوكات المعيبةوالمتبعةفي المجتمعات.

Grade 10

منهاج التّربية الإسلاميّة
كفايات التّربية الإسلاميّة الأساسيّة - الصّفّ العاشر.

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أوّلا : مجال القرآن الكريم .

الكفاية (١) : يتلو السور والآيات القرآنية المقررة تلاوة صحيحة.

مكوّناتها : ١- ينطق الحروف والكلمات نطقا صحيحا.
٢- يراعي ضبط أواخر الكلمات بالشكل.
٣- يطبق أحكام التجويد المقررة.

مخرجات التعلم :
١ -يعرف مخارج الحروف ، ويجيد الفصاحة .
٢ -يتمثّل معارفه النحوية أثناء التلاوة .
٣ -يعرف أحكام التجويد ويتمثّلها أثناء التلاوة .

الكفاية (٢) : يحفظ السور والآيات القرآنية المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الآيات القرآنية المقررة قراءة صحيحة.
٢- يحفظ الآيات القرآنية المقررة حفظا خاليا من الأخطاء.

مخرجات التعلم :
١ -يعرف أحكام التجويد ويطبقها بنجاح .
٢ -يستحضر معاني الآيات خلال الحفظ .

الكفاية (٣) : يعبّر كتابة عن المعنى الإجمالي للسور والآيات المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للآيات.
٣- يستنتج الآداب والأحكام الشرعية المستفادة من الآيات.

مخرجات التعلم :
١ -يجيد استعمال كتب وحواشي شرح القرآن الكريم .
٢ -يستنبط المعنى الإجمالي اعتمادا على كتب التفسيرالمعتمدة لدى جمهور الفقهاء .
٣ -يتمثل طرائق الفقهاء في استنباط الأحكام والقيم الأخلاقية من الآيات الكريمة .

الكفاية (٤) : يتعرف على بعض علوم القرآن الكريم .
مكوّناتها : ١- يبين المقصود بعلوم القرآن الكريم المقررة.
٢- يستنتج فوائد علوم القرآن التي درسها.
مخرجات التعلم :
١ -يصنّف علوم القرآن الكريم وفق مفاهيمها.
٢ -يربط بين الحكم الشرعي والحكمة منه .

ثانيا : مجال الحديث الشّريف :
الكفاية (١) : يحفظ الأحاديث الشريفة المقررة حفظا سليما.
مكوّناتها : ١- يقرأ الأحاديث الشريفة المقررة قراءة صحيحة.
٢- يحفظ الأحاديث الشريفة المقررة حفظا خاليا من الأخطاء.
مخرجات التعلم :
١ -يتقن القراءة السليمة وفق قواعدها الصوتية واللغوية والإيقاعية.
٢ -يدرك مقاصد الاحاديث ويتمثلها أثناء العرض .

الكفاية (٢) : يعبر كتابة عن المعنى الإجمالي للأحاديث الشريفة المقررة.
مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للأحاديث.
١٨ - يستنتج الآداب والأحكام الشرعية المستفادة من الأحاديث.

مخرجات التعلم :
١ -يستغل المصادر الخاصّة بتفسير الحديث في شرح المفردات الصعبة.(ينفذ إلى معاني المفردات الصعبة مستغلا المصادر الخاصّة بتفسير الحديث الشريف) .
٢ -يرجع إلى أصح التفاسير وأشهرها عند الفقهاء ليخلص إلى المعنى الإجمالي للأحاديث النبوية الشريفة .
٣ -يطبّق قواعد استنباط الأحكام الشرعية من الحديث ، ويتمثّل سيرة النبيّ الأكرم والسلف الصالح .

ثالثا : مجال العقيدة .
الكفاية (١) : يتعرف بأحكام العقيدة الإسلامية المقررة .
مكوناتها : ١- يحدد معنى المفاهيم والمصطلحات العقدية المقررة.
٢- يوضّح الأحكام الشرعية المتعلقة بها.
٣- يستنتج أثر الالتزام بها في حياته.
مخرجات التعلم :
١ -يستغل كتب الفقه في تحديد المفاهيم والمصطلحات العقدية المقررة .
٢ -يقيّم العقائد من خلال الأحكام الشرعية .
٣ -يعرف الحكمة من العبادة .

رابعا : مجال العبادات .

الكفاية (١) : يتعرف أحكام العبادات المقررة .

مكوّناتها : ١- يحدد معنى المفاهيم والمصطلحات الفقهية .
٢- يوضّح الأحكام الشرعيّة للعبادات المقررة.
٣- يبيّن كيفية تطبيق هذه العبادات.

مخرجات التعلم

١ -يميّز بين المفاهيم والمصطلحات الفقهية اعتمادا على المصنفات وكتب التّأصيل .
٢ -يعرف ما يناسب العبادات من أحكام شرعية .(يصنّف الأحكام الشرعية إلى درجاتها المعلومة عند الفقهاء)
٣- يقيم طقوسه وعباداته اليومية كما بيّنتها السّنّة النّبويّة الشريفة .
٤ - يقارن بين العبادات في مختلف الديانات (يستفيد من المؤلفات في علم مقارنة الاديان)

خامسا : مجال السيرة والشخصيات .

الكفاية (١) : يستخلص مواطن القدوة من سيرة الرسول والصحابة .

مكوّناتها : ١- يلخص المواقف المقررة من سيرة الرسول والصحابة .
٢- يستنتج أبرز صفات الرسول والصحابة من خلال الموضوعات المقررة.
٣- يستنبط الدروس والعبر من حياة الرسول والصحابة .

مخرجات التعلم :

١- يحتذي بسيرة الرسول الكريم وصحابته الأبرار .
٢- يخلص إلى صفات الرسول والصحابة من خلال سِيرهم .
٣- يربط بين الفعل والحكمة منه في حياة الرسول الكريم وصحايته.
٤- يقتدي بالرسول الكريم والسلف الصالح في عقيدته وعباداته ومعاملاته.

سادسا : مجال الأخلاق والتهذيب .

الكفاية (١) : يتعرف الأخلاق والآداب الإسلامية المقررة .

مكوّناتها : ١- يحدد معاني المفاهيم والمصطلحات .
٢- يبيّن الأحكام الشرعيّة المتعلقة بها .
٣- يستنتج أثر الالتزام بها في حياته .

مخرجات التعلم :

١-يستغل المصادر فقهية المجمع عليها لتحديد المفاهيم والمصطلحات .
٢-يعرض السلوك على محك الأحكام الشرعية لتقييمه .
٣- يستدل على قيمة الإلتزام بالأحكام الشرعية من خلال مشاهد حيّة
٤- يعرف سرّ سعادة المؤمن الملتزم .

Grade 11

منهاج التّربية الإسلاميّة
كفايات التّربية الإسلاميّة الأساسيّة - الصّفّ الحادي عشر.

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أوّلا : مجال القرآن الكريم وعلومه.

الكفاية (١) : يتلو الآيات القرآنية والسور الكريمة المقررة تلاوة صحيحة.

مكوّناتها : ١- ينطق الحروف والكلمات نطقا صحيحا.
٢- يراعي ضبط أواخر الكلمات بالشكل.
٣- يطبق أحكام التجويد المقررة.
٤- يراعي مواطن الوقف والوصل وجوبا وجوازا وممنوعا.

مخرجات التعلم : ١- يعرف مخارج الحروف ، ويجيد الفصاحة .
٢- يتمثّل معارفه النحوية أثناء التلاوة .
٣- يعرف أحكام التجويد ويتمثّلها أثناء التلاوة .
٤- يقارن بين أحكام التجويد.

الكفاية (٢) : يحفظ جانبا من الآيات القرآنية المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الآيات القرآنية المقررة قراءة صحيحة.
٢- يحفظ الآيات القرآنية المقررة حفظا خاليا من الأخطاء .

مخرجات التعلم : ١- يعرف أحكام التجويد ويطبقها بنجاح .
٢- يستحضر معاني الآيات خلال الحفظ .
٣- يدعم المواقف التعليمية والحياتيّة التي تمر به بالآيات المناسبة ممّا حفظ .

الكفاية (٣) : يعبّر كتابة عن المعنى الإجمالي للسور والآيات المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للآيات.
٣- يستنتج الآداب والأحكام الشرعية المستفادة من الآيات.
٤- يدعم المواقف التعليمية والحياتيّة التي تمر به بمضمون ما قرأ من الآيات الكريمة .

مخرجات التعلم : ١- يجيد استعمال كتب وحواشي شرح القرآن الكريم .
٢- يستنبط المعنى الإجمالي اعتمادا على كتب التفسيرالمعتمدة لدى جمهور الفقهاء .
٣- يتمثل طرائق الفقهاء في استنباط الأحكام والقيم الأخلاقية من

الآيات الكريمة .
٤- يدّون بدقة معاني الآيات الكريمة مشيرا إلى مصادرها .

الكفاية (٤) : يؤمن أنّ القرآن الكريم نزل على سيدنا محمّد – صلى الله عليه وسلّم - بوساطة الوحي .

مكوّناتها : ١- يوضّح المفاهيم والمصطلحات ذات الصلة .
٢- يذكر أنواع الوحي .
٣- يعتقد يقينا أنّ القرآن الكريم كلام الله تعالى .

مخرجات التعلم : ١- يستنتج ويحفظ ويدوّن المفاهيم .
٢- يدرك الحكمة من تعدّد صور الوحي .
٣- يستخدم كتب التفسير في فهم النصوص القرآنيّة .

ثانيا : مجال السنة النبويّة :

الكفاية (١) : يحفظ الأحاديث الشريفة المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الأحاديث الشريفة المقررة قراءة صحيحة.
٢- يحفظ الأحاديث الشريفة المقررة حفظا خاليا من الأخطاء.
٣- يقرأ الأحاديث الشريفة المقررة حفظا متمثلا معناها.

مخرجات التعلم : ١- يتقن القراءة السليمة وفق قواعدها الصوتية واللغوية والإيقاعية.
٢- يدرك مقاصد الأحاديث ويتمثلها أثناء العرض .
٣- يقرأ الأحاديث الشريفة موحيا بمعانيها

الكفاية (٢) : يعبر كتابة عن المعنى الإجمالي للأحاديث الشريفة المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للأحاديث.
٣ - يستنتج الآداب والأحكام الشرعية المستفادة من الأحاديث.
٤- يدعم المواقف الحياتيّة والتعليميّة التي تمر به بما حفظ من الأحاديث الشريفة.

مخرجات التعلم : ١- يستغل المصادر الخاصّة بتفسير الحديث في شرح المفردات الصعبة.(ينفذ إلى معاني المفردات الصعبة مستغلا المصادر الخاصّة بتفسير الحديث الشريف) .
٢- يرجع إلى أصح التفاسير وأشهرها عند الفقهاء ليخلص إلى المعنى الإجمالي للأحاديث النبوية الشريفة .
٣- يطبّق قواعد استنباط الأحكام الشرعية من الحديث ، ويتمثّل سيرة النبيّ الأكرم والسلف الصالح .
٤- يدوّن بدقة معاني الحديث الشريف المقررة مشيرا إلى مصادرها.

الكفاية (٣) : يبيّن منزلة السنة النبويّة في حياة المسلمين ودوافع اهتمامهم بها ومظاهر ذلك .

مكوّناتها : ١- يوضّح المفاهيم والمصطلحات ذات الصلة .
٢- يلمّ بأنواع السنّة النّبويّة .
٣- يميّز الحديث القدسيّ من غيره من الأحاديث .

٤ -يفسّر دوافع المسلمين للاهتمام بالسنة النبويّة .
٥ -يوضّح مخاطر الوضع في الحديث .

مخرجات التعلم : ١- يدوّن ويحفظ المفاهيم والمصطلحات ذات الصلة .
٢- يقدّر جهود الصّحابة والتابعين في حفظ السنة النبويّة .
٣- يستخدم الكتب الستة في الحديث الشريف .
٤- يجمع المعلومات من المصادر التي أجمع العلماء عليها .
٥- يوثّق المعلومات من مصادرها .

ثالثا : مجال الأخلاق والتهذيب .

الكفاية (١) : يتعرف الأخلاق والآداب الإسلامية المقررة .

مكوّناتها : ١- يحدد معاني المفاهيم والمصطلحات .
٢- يبيّن الأحكام الشرعيّة المتعلقة بها .
٣- يستنتج أثر الالتزام بها في حياته .
٤-يستنتج أحكام الأخلاق والآداب الإسلامية المقررة من مصادر التشريع المجتمع عليها.

مخرجات التعلم : ١- ستغل المصادر الفقهية المجمع عليها لتحديد المفاهيم والمصطلحات .
٢- يعرض السلوك على محك الأحكام الشرعية لتقييمه .
٣- يستدل على قيمة الالتزام بالأحكام الشرعية من خلال مشاهد حيّة .
٤- يعرف سرّ سعادة المؤمن الملتزم .
٥- يدعم أموره الحياتيّة بما أحاط به من سيره السلف الصالح.

Grade 12

منهاج التّربية الإسلاميّة
كفايات التّربية الإسلاميّة الأساسيّة - الصّفّ الثاني عشر.

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أوّلا : مجال القرآن الكريم .

الكفاية (١) : يتلو الآيات القرآنية المقررة تلاوة صحيحة.

مكوّناتها : ١- ينطق الحروف والكلمات نطقا صحيحا.
٢- يراعي ضبط أواخر الكلمات بالشكل.
٣- يطبق أحكام التجويد المقررة.
٤- يراعي مواطن الوقف والوصل وجوبا وجوازا وممنوعا.

مخرجات التعلم :
٤ -يعرف مخارج الحروف ، ويجيد الفصاحة .
٥ -يتمثّل معارفه النحوية أثناء التلاوة .
٦ -يعرف أحكام التجويد ويتمثّلها أثناء التلاوة .
٧ -يقارن بين أحكام التجويد.

الكفاية (٢) : يحفظ جانبا من الآيات القرآنية المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الآيات القرآنية المقررة قراءة صحيحة.
٢- يحفظ الآيات القرآنية المقررة حفظا خاليا من الأخطاء.

مخرجات التعلم :
٣ -يعرف أحكام التجويد ويطبقها بنجاح .
٤ -يستحضر معاني الآيات خلال الحفظ .
٥ -يدعم المواقف التعليمية والحياتيّة التي تمر به بالآيات المناسبة مما حفظ .

الكفاية (٣) : يعبّر كتابة عن المعنى الإجمالي للسور والآيات المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للآيات.
٣- يستنتج الآداب والأحكام الشرعية المستفادة من الآيات.
٦ -يدعم المواقف التعليمية والحياتيّة التي تمر به بمضمون ما قرأ من الآيات الكريمة .

مخرجات التعلم :
٤ -يجيد استعمال كتب وحواشي شرح القرآن الكريم .
٥ -يستنبط المعنى الإجمالي اعتمادا على كتب التفسيرالمعتمدة لدى جمهور الفقهاء .
٦ -يتمثل طرائق الفقهاء في استنباط الأحكام والقيم الأخلاقية من الآيات الكريمة .
٧ -يدّون بدقة معاني الآيات الكريمة مشيرا إلى مصادرها .

ثانيا : مجال الحديث الشّريف :

الكفاية (١) : يحفظ الأحاديث الشريفة المقررة حفظا سليما.

مكوّناتها : ١- يقرأ الأحاديث الشريفة المقررة قراءة صحيحة.
٢- يحفظ الأحاديث الشريفة المقررة حفظا خاليا من الأخطاء.
٣- يقرأ الأحاديث الشريفة المقررة حفظا متمثلا معناها.

مخرجات التعلم :

٣ -يتقن القراءة السليمة وفق قواعدها الصوتية واللغوية والإيقاعية.
٤ -يدرك مقاصد الاحاديث ويتمثلها أثناء العرض .
٥ -يقرأ الأحاديث الشريفة موحيا بمعانيها

الكفاية (٢) : يعبر كتابة عن المعنى الإجمالي للأحاديث الشريفة المقررة.

مكوّناتها : ١- يبيّن معنى المفردات الصعبة.
٢- يوضّح المعنى الإجمالي للأحاديث.
١٩ - يستنتج الآداب والأحكام الشرعية المستفادة من الأحاديث.
٢٠ - يدعم المواقف الحياتيّة والتعليميّة التي تمر به بما حفظ من الأحاديث الشريفة.

مخرجات التعلم :

٤ -يستغل المصادر الخاصّة بتفسير الحديث في شرح المفردات الصعبة.(ينفذ إلى معاني المفردات الصعبة مستغلا المصادر الخاصّة بتفسير الحديث الشريف) .
٥ -يرجع إلى أصح التفاسير وأشهرها عند الفقهاء ليخلص إلى المعنى الإجمالي للأحاديث النبوية الشريفة .
٦ -يطبّق قواعد استنباط الأحكام الشرعية من الحديث ، ويتمثّل سيرة النبيّ الأكرم والسلف الصالح .
٧ -يدوّن بدقة معاني الحديث الشريف المقررة مشيرا إلى مصادرها.

ثالثا : مجال العقيدة .

الكفاية: يلم بأحكام العقيدة الإسلامية المقررة .

مكوناتها : ١- يحدد معنى المفاهيم والمصطلحات العقدية المقررة.
٢- يوضّح الأحكام الشرعية المتعلقة بها.
٣- يستنتج أثر الالتزام بها في حياته.
٤-يحدد مصادر أحكام العقيدة.

مخرجات التعلم :

٤ -يعتمد كتب الفقه في تحديد المفاهيم والمصطلحات العقدية المقررة .
٥ -يقيّم العقائد من خلال الأحكام الشرعية .
٦ -يعرف الحكمة من أحكام العقيدة المقررة .
٧ -يستنتج أحكام العقيدة من مصادر التشريع.

رابعا : مجال العبادات .

الكفاية : يتعرف أحكام العبادات المقررة .

مكوّناتها : ١- يحدد معنى المفاهيم والمصطلحات الفقهية .
٢- يوضّح الأحكام الشرعيّة للعبادات المقررة.
٣-يبيّن كيفية تطبيق هذه العبادات.
٤-يحدد مصادر تشريع أحكام العبادات المقررة

مخرجات التعلم

٣ -يميّز بين المفاهيم والمصطلحات الفقهية اعتمادا على المصنفات وكتب التّأصيل .
٤ -يعرف ما يناسب العبادات من أحكام شرعية .(يصنّف الأحكام الشرعية إلى درجاتها المعلومة عند الفقهاء)
٣- يقيم طقوسه وعباداته اليومية كما بيّنتها السّنّة النّبويّة الشريفة .
٤ - يقارن بين العبادات في مختلف الديانات (يستفيد من المؤلفات في علم مقارنة الأديان)
٨ -يستنتج أهمية تطبيق العبادات على الحياتين الدنيا والأخيرة.

خامسا : مجال السيرة والشخصيات .

الكفاية (١) : يستخلص مواطن القدوة من سيرة الرسول والصحابة .

مكوّناتها : ١- يلخص المواقف المقررة من سيرة الرسول والصحابة .
٢- يستنتج أبرز صفات الرسول والصحابة من خلال الموضوعات المقررة.
٣- يستنبط الدروس والعبر من حياة الرسول والصحابة .
٤- يوثّق المصادر التي يعتمدها في الاستنباط.

مخرجات التعلم :

١- يحتذي بسيرة الرسول الكريم وصحابته الأبرار .
٢- يخلص إلى صفات الرسول والصحابة من خلال سِيَرهم .
٣- يربط بين الفعل والحكمة منه في حياة الرسول الكريم وصحايته.
٤- يقتدي بالرسول الكريم والسلف الصالح في عقيدته وعباداته ومعاملاته.
٥- يستخدم المراجع والمصادر المعتمدة في السيرة.

سادسا : مجال الأخلاق والتهذيب .

الكفاية (١) : يتعرف الأخلاق والآداب الإسلامية المقررة .

مكوّناتها : ١- يحدد معاني المفاهيم والمصطلحات .
٢- يبيّن الأحكام الشرعيّة المتعلقة بها .
٣- يستنتج أثر الالتزام بها في حياته .
٤-يستنتج أحكام الأخلاق والآداب الإسلامية المقررة من مصادر التشريع المجتمع عليها.

مخرجات التعلم : ١- ستغل المصادر الفقهية المجمع عليها لتحديد المفاهيم

والمصطلحات .
٢- يعرض السلوك على محك الأحكام الشرعية لتقييمه .
٥ -يستدل على قيمة الالتزام بالأحكام الشرعية من خلال مشاهد حيّة
٦ -يعرف سرّ سعادة المؤمن الملتزم .
٧ -يدعم أموره الحياتيّة بما أحاط به من سيره السلف الصالح.

سابعا : مجال مستجدّات حياة الناس في هذا العصر :
الكفاية الأساسية : يأخذ بأحكام الإسلام ومواقفه من القضايا المعاصرة .
مكوّناتها : ١- يسلم أنّ الإسلام راعى تطوّر حياة الناس في حياتهم الدنيوية .
٢- يدرك أن الإسلام دين الله الذي ارتضاه لعباده إلى قيام الساعة .
٣- يقر يقينا أن القوانين الوضعيّة لم ولا ولن تحل القضايا المعاصرة لأنها من وضع البشر
٤- يردّ القضايا التي تطرأ عليه في حياته إلى مصادر التشريع في الإسلام.
٥- يسلّم بأحكام الإسلام في القضايا المعاصرة سواء أدرك الحكمة منها أم لم يدركها.

مخرجات التعلم : ١- يبيّن مفاهيم ومصطلحات القضايا المعاصرة.
٢- يذكرالقضايا المعاصرة التي تشغل الناس في هذا العصر.
٨ -يبين الأحكام الشرعية للقضايا المعاصرة.
٩ -يبين أهمية الأحكام الإسلامية في القضايا المعاصرة على حياة الناس حاضرهم ومستقبلهم.
١٠ - يعتزّ بأحكام الإسلام تجاه القضايا المعاصرة.