

JULY	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p><b>TOPIC- THE STATES OF MATTER</b>  <b>AOI-</b> Human Ingenuity  <b>Significant Concepts-</b> Three states of matter – solid, liquid, gas. Change of Matter from one state to another  <b>Students should know-</b>            1- Understanding physical properties of three states of matter,            2 - Arrangement of particles in solid, liquid and gas,            3 - How the structure of matter changes when it changes state,            4 – How substances dissolve?  <b>MYP Unit Question-</b> What is everything made from?</p> <p><b>TOPIC- CELLS</b>  <b>AOI-</b> Human Ingenuity  <b>Significant Concepts-</b> Functions of a cell is related to its shape.  <b>Students should know-</b>            1- Different parts and functions of microscopes,            2- Observing microscopic organisms under microscope,            3- Discovery of cells,            4- Basic parts of a cell,            5- Adaptation in cells            6- From cells to tissue and organs.  <b>MYP Unit Question-</b> How will you prove that for proper working, right shape is important?</p>	<p><b>CRITERIA C</b>            Knowledge            And Understanding of            Science</p> <p><b>CRITERIA D</b>            Scientific            Investigations</p> <p><b>CRITERIA F</b>            Scientific            Attitude</p>	Thinker(C,D) Principled (F) Open Minded (F) Communicator (F) Caring (F) Risk Taker (C,D) Reflective (C,D ) Knowledgeable (C,F) Inquirer(D)	Focus On- Communication Thinking Collaboration	<b>Connected to-</b> Art

AUG	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p><b>TOPIC- CHARACTERISTICS OF LIVING THINGS</b>  <b>AOI-</b> Health and Social education  <b>Significant Concepts-</b> Living and non living things have their own differentiating characteristics.  <b>Students should know-</b>            1- Characteristics of life.            2- Animal life.            3- Plant life.            4-Signs of life.            5- Testing for carbon dioxide in exhaled air, in air around germinating seeds  <b>MYP Unit Question-</b> Why is a moving car not considered living?</p> <p><b>TOPIC- ACIDS AND ALKALIS</b>  <b>AOI-</b> Health and Social Education  <b>Significant Concept-</b> Corrosive nature of acid and base but their importance in daily life and for health.  <b>Students should know-</b>            1- Acids found in plants and animals.            2- Organic acids and mineral acids.            3- base which neutralize acids.            4- Indicators to identify acid/base.            5- Strong and weak acids and alkalis..            6- Neutralization reactions.            7- Acid rain makers.            8- Effects of acid rain  <b>MYP Unit Question-</b> How can neutralization reactions are used to keep our body and environments healthy?</p>	<p><b>CRITERIA C</b>            Knowledge and Understanding of Science</p> <p><b>CRITERIA D</b>            Scientific Investigations</p> <p><b>CRITERIA F</b>            Scientific Attitude</p>	Thinker(C,D) Principled (F) Open Minded (F) Communicator (F) Caring (F) Risk Taker (C,D) Reflective (C,D ) Knowledgeable (C,F) Inquirer(D)	Focus On- Communication Thinking Collaboration	

SEPT	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p><b>TOPIC- PROPERTIES OF MATTER AND MATERIALS</b>  <b>AOI-</b> Human Ingenuity  <b>Significant concepts-</b> There are different types of materials whose different properties could be investigated.  <b>Students should know-</b>            1- Five important groups of materials- wood, metal, plastic, glass, pottery.            2-Two types of water proof materials- water repellent and water resistant            3- Absorbent materials            4-Brittle materials            5- Flexible materials.            6- Malleable materials            7- Transparent materials            8- Heat conductors.            9- Electrical conductors            10- Pure liquids            11- solution,            12- Metals            13- Non metals  <b>MYP Unit Question-</b> What do you mean by the word material?</p> <p><b>TOPIC- MAJOR ORGAN SYSTEMS</b>  <b>AOI-</b> Health and Social Education  <b>Significant Concepts-</b> Health is all about Systems of living organisms working in coordination.  <b>Students should know-</b>            1- Root, stem, leaf, flower and bud are main organs of plant.</p>	<p><b>CRITERIA A</b>            One World</p> <p><b>CRITERIA B</b>            Communication In science</p> <p><b>CRITERIA C</b>            Knowledge and Understanding of Science</p>	<p>Inquirer (A)            Thinker (A, C)            Communicator (A,B)            Caring (A)            Risk Taker (C)            Reflective (C)            Knowledgeable (A,B,C)            Principled(B)</p>	<p>Focus On-            Organization            Reflection            Information Literacy            Communication</p>	<p><b>Connected to-</b>            Language A (English), Art</p>

	<p>2- Circulatory, respiratory, nervous, digestive, excretory, sensory, skeletal, muscular and endocrine systems of humans.</p> <p>3- Exercise makes organs more efficient</p> <p><b>MYP Unit Question-</b> Many people claim that they do not have time to exercise. How would you motivate such people?</p>				
<b>OCT</b>	<b>GRADE 6 (SCIENCE)</b>	<b>OBJECTIVE</b>	<b>LEARNER PROFILE</b>	<b>ATL</b>	<b>INTERDISCIPLINARY</b>
	<p><b>TOPIC- LIVING THINGS IN THEIR ENVIRONMENT</b></p> <p><b>AOI-</b> Environments/community and service</p> <p><b>Significant Concepts-</b> Living organisms are adapted according to their habitats. Any disturbance in the food chain affects the environment adversely.</p> <p><b>Students should know-</b></p> <p>1- What is ecology and the keywords in ecology,</p> <p>2- Habitats as living place of different living organisms,</p> <p>3- Daily and seasonal adaptations of plants and animals</p> <p>4- Investigating a habitat.</p> <p>5- Adaptations for feeding.</p> <p>6- Adaptations to certain habitats,</p> <p>7- links between plants and animals</p> <p><b>MYP Unit Question-</b> Why do we prefer to live in our own habitat?</p>	<p><b>CRITERIA A</b> One World</p> <p><b>CRITERIA B</b> Communication in Science</p> <p><b>CRITERIA C</b> Knowledge and Understanding of Science</p>	<p>Inquirer (A)</p> <p>Thinker (A, C)</p> <p>Communicator (A,B)</p> <p>Caring (A)</p> <p>Risk Taker (C)</p> <p>Reflective (C)</p> <p>Knowledgeable (A,B,C)</p> <p>Principled(B)</p>	<p>Focus On- Organization</p> <p>Reflection</p> <p>Information Literacy</p> <p>Communication</p>	<p><b>Connected to-</b> Language A (English), Art</p>
<b>NOV</b>	<b>GRADE 6 (SCIENCE)</b>	<b>OBJECTIVE</b>	<b>LEARNER PROFILE</b>	<b>ATL</b>	<b>INTERDISCIPLINARY</b>
	<p><b>TOPIC- MEASUREMENTS</b></p> <p><b>AOI-</b> Human Ingenuity</p> <p><b>Significant Concepts-</b> Accuracy in</p>	<p><b>CRITERIA- C</b> Knowledge and Understanding of</p>	<p>Thinker(C, D ,E)</p> <p>Risk Taker (C, D)</p> <p>Reflective(C, D, E)</p>	<p>Focus on- Reflection</p> <p>Thinking</p>	<p><b>Connected to-</b> Mathematics, Humanities</p>

	<p>measurement is necessary. Different physical quantities are measured in different units.</p> <p><b>Students should know-</b></p> <ol style="list-style-type: none"> <li>1- Units of length mass and time.</li> <li>2- measurement of length, mass and time,</li> <li>3- Convenient units for very large and small numbers.</li> <li>4- Estimating quantities.</li> <li>5- Accuracy of measurements.</li> <li>6- Units of area and volume.</li> <li>7- Measurement of heat and temperature.</li> </ol> <p><b>MYP Unit Question-</b> What makes rocket making and launching successful?</p> <p><b>TOPIC : ROCKS AND SOIL</b></p> <p><b>AOI</b> - Environment</p> <p><b>Significant Concept:</b> Formation of solar system and structure of Earth.</p> <p><b>Students Should Know :</b></p> <ol style="list-style-type: none"> <li>1. Formation of the Solar System,</li> <li>2. The Earth is made up of three layers - Crust, Mantle and Core,</li> <li>3. Rock Cycle,</li> <li>4. Types of Rocks,</li> <li>5. Layers of Soil</li> </ol> <p><b>MYP Unit Question-</b> What do you find if you pick up a handful of earth?</p>	<p>science</p> <p><b>CRITERIA D</b> Scientific Inquiry</p> <p><b>CRITERIA E</b> Processing Data</p> <p><b>CRITERIA F</b> Attitude in Science</p>	<p>Knowledgeable ( C) Principled (F) Open Minded (F) Communicator (E,F) Caring (F) Inquirer (D)</p>	<p>Transfer Communicator</p>	<p>(Geography)</p>
<b>DEC</b>	<b>GRADE 6 (SCIENCE)</b>	<b>OBJECTIVE</b>	<b>LEARNER PROFILE</b>	<b>ATL</b>	<b>INTERDISCIPLINARY</b>
	<p><b>TOPIC- CLASSIFICATION AND VARIATION</b></p> <p><b>AOI-</b> Environments, human ingenuity</p>	<p><b>CRITERIA C</b> Knowledge and understanding of</p>	<p>Thinker(C) Risk Taker (C) Reflective (C )</p>	<p>Focus on- Organization Collaboration</p>	

	<p><b>Significant concepts-</b> Classification of Living things. Variations in living things and cause of variations.</p> <p><b>Students should know-</b></p> <ol style="list-style-type: none"> <li>1- Scientists have classified living things as Animals, Plants, Monera, Protista and Fungi and named them as kingdoms.</li> <li>2-vertebrate and invertebrate are the two groups of animal kingdom.</li> <li>3- Invertebrates include jellyfish, flatworms, annelids, nematodes, arthropods, mollusca and echinoderms as sub-groups.</li> <li>4- Arthropods have classes like myriapods, crustaceans, insects and arachnids.</li> <li>5- Vertebrates include groups like fish, amphibians, reptiles, birds and mammals.</li> <li>6- Plant kingdom includes angiosperms and gymnosperms.</li> <li>7- Viruses.</li> <li>8- Fungi</li> <li>9- Species.</li> <li>10- spider key and numbered key for identification of living things.</li> <li>11- Variation between species.</li> <li>12- Variations within species. a- continuous b- discontinuous.</li> <li>13- Causes of variation</li> </ol> <p><b>MYP Unit Question-</b> What is the importance of classifying things?</p>	<p>Science</p> <p><b>CRITERIA E</b></p> <p>Processing Data</p>	<p>Communicator (E) Knowledgeable ( C, E)</p>	<p>Information Literacy</p>	
--	---	--	---	-----------------------------	--

JAN	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p><b>TOPIC- FORCES AND MOTION</b>  <b>AOI-</b> Environments  <b>Significant concepts-</b> Force and its effect on other physical quantities.  <b>Students should know-</b>            1- Force is push or pull.            2- What forces can do.            3-How to measure forces.            4- Different types of forces.            5- How springs stretch.            6- The Newton’s spring balance.  <b>MYP Unit Question-</b> Why different things around you move differently?</p> <p><b>TOPIC- MICROORGANISMS</b>  <b>AOI-</b> Health and Social Education  <b>Significant concepts-</b> Microorganisms are divided into 3 main kingdoms – Fungi, Monera and Protocista, Life cycle of Viruses  <b>Students should know-</b>            1- Growth and multiplication of microorganisms - Fungi, Monera and Protocista,            2- The usefulness and the diseases caused by these microorganisms,            3- Decomposers – as Recyclers  <b>MYP Unit Question –</b> Can you see anything around you in the air with naked eyes?</p>	<p><b>CRITERIA- C</b>            Knowledge and Understanding of science</p> <p><b>CRITERIA E</b>            Processing            Data</p>	Thinker(C, ,E) Risk Taker ( C) Reflective( C, E) Knowledgeable ( C) Communicator (E)	Focus on- Reflection Thinking Transfer Communicator	<b>Connected to-</b> Mathematics
FEB	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p><b>TOPIC- ENERGY</b>  <b>AOI-</b> Environments, Community and service</p>	<p><b>CRITERIA A</b>            One World</p>	Inquirer (A) Thinker (A, C) Communicator	Focus on- Organization Reflection	<b>Connected to-</b> Language A (English), Art

<p><b>Significant concepts-</b> Energy enables to exert force and do work.</p> <p><b>Students should know-</b></p> <ol style="list-style-type: none"> <li>1- Scientific meaning of energy.</li> <li>2- Different forms of energy-             <ol style="list-style-type: none"> <li>a- heat energy,</li> <li>b- radiation energy,</li> <li>c- light energy,</li> <li>d- sound energy,</li> <li>e- electrical energy,</li> <li>f- chemical energy,</li> <li>g- Stored energy</li> </ol> </li> <li>3- Transformation of energy</li> <li>4- Fuels,</li> <li>5- Fossil fuels</li> </ol> <p><b>MYP Unit Question-</b> Why should energy be given so much importance in our life?</p> <p><b>TOPIC- ENERGY TRANSFERS</b></p> <p><b>AOI-</b> Environments</p> <p><b>Significant concepts-</b> Energy is never lost, it is transformed. Work and energy are measured in Joule. Energy can neither be created nor destroyed-</p> <p><b>Students should know-</b></p> <ol style="list-style-type: none"> <li>1- Energy transformation is vital for survival.</li> <li>2-measuring work.</li> <li>3-Energy transfer diagrams.</li> <li>4-Plants and energy.</li> <li>5-Energy and ourselves.</li> <li>6-Generating electricity.</li> <li>7- Conservation of energy.</li> </ol> <p><b>MYP Unit Question-</b> How can you carry</p>	<p><b>CRITERIA B</b> Communication in science</p> <p><b>CRITERIA C</b> Knowledge and Understanding of Science</p>	<p>(A,B) Caring (A) Risk Taker (C) Reflective (C) Knowledgeable (A,B,C) Principled(B)</p>	<p>Information Literacy Communication</p>	
--	---	---	---	--



	energy from one place to another?				
MARCH	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p><b>TOPIC- PEOPLE AND THE PLANET</b></p> <p><b>AOI-</b> Environments</p> <p><b>Significant concepts-</b> To know the environment of early times and compare with today's to understand the impact of human activities on our environment.</p> <p><b>Students should know-</b></p> <ol style="list-style-type: none"> <li>1-Fossil fuels, renewable and non-renewable resources.</li> <li>2- Changes on land, in sea and in the atmosphere.</li> <li>3- The green house effect.</li> <li>4- Acid rain.</li> <li>5- The ozone layer.</li> <li>6- Cutting energy use.</li> <li>7- Recycling and re-using.</li> <li>8- The work of government and companies.</li> </ol> <p><b>MYP Unit Question-</b> What results would you predict if human activities were having an environmental impact?</p> <p><b>TOPIC- FINDING THE AGE OF THE EARTH</b></p> <p><b>AOI-</b> Environment</p> <p><b>Significant concepts-</b> Formation of rocks and fossils and estimating their age.</p> <p><b>Students should know-</b></p> <ol style="list-style-type: none"> <li>1-Landscape</li> <li>2- Rock layers, time periods, time scale</li> <li>3- How fossils are formed?</li> </ol>	<p><b>CRITERIA A</b></p> <p>One World</p> <p><b>CRITERIA B</b></p> <p>Communication in Science</p> <p><b>CRITERIA C</b></p> <p>Knowledge and Understanding of Science</p>	<p>Inquirer (A)</p> <p>Thinker (A, C)</p> <p>Communicator (A,B)</p> <p>Caring (A)</p> <p>Risk Taker (C)</p> <p>Reflective (C)</p> <p>Knowledgeable (A,B,C)</p> <p>Principled(B)</p>	<p>Focus on-</p> <p>Organization</p> <p>Reflection</p> <p>Information Literacy</p> <p>Communication</p>	<p><b>Connected to-</b></p> <p>Language A (English), Art, Humanities</p>

<p>4- Index fossils.  5- Finding the age of the rocks  6- Fossil records.  7- Radioactive materials.  <b>MYP Unit Question-</b> What happened to the certain groups of animals that were present about 200 million years ago?</p> <p><b>TOPIC- THE EARTH AND BEYOND</b>  <b>AOI-</b> Environments  <b>Significant concepts-</b> Movements in the sky. Measuring with light. The moon. The solar system. The Milky Way and beyond the Milky Way.  <b>Students should know-</b>  1-Changing seasons in each hemisphere.  2- Path of the Sun across the sky.  3- Measuring with the light.  4- Bright stars.  5- Constellations and planets. 6- Phases of the Moon  7- Parts of the Solar System- planets and asteroids. 8- Galaxies.  <b>MYP Unit Question-</b>What do you see when you gaze at the sky in the night?</p>				
---	--	--	--	--