

JULY	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p>TOPIC- THE STATES OF MATTER AOI- Human Ingenuity Significant Concepts- Three states of matter – solid, liquid, gas. Change of Matter from one state to another Students should know- 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? MYP Unit Question- What is everything made from?</p> <p>TOPIC- CELLS AOI- Human Ingenuity Significant Concepts- Functions of a cell is related to its shape. Students should know- 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. MYP Unit Question- How will you prove that for proper working, right shape is important?</p>	<p>CRITERIA C Knowledge And Understanding of Science</p> <p>CRITERIA D Scientific Investigations</p> <p>CRITERIA F 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	Connected to- Art

AUG	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p>TOPIC- CHARACTERISTICS OF LIVING THINGS AOI- Health and Social education Significant Concepts- Living and non living things have their own differentiating characteristics. Students should know- 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 MYP Unit Question- Why is a moving car not considered living?</p> <p>TOPIC- ACIDS AND ALKALIS AOI- Health and Social Education Significant Concept- Corrosive nature of acid and base but their importance in daily life and for health. Students should know- 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 MYP Unit Question- How can neutralization reactions are used to keep our body and environments healthy?</p>	<p>CRITERIA C Knowledge and Understanding of Science</p> <p>CRITERIA D Scientific Investigations</p> <p>CRITERIA F 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>TOPIC- PROPERTIES OF MATTER AND MATERIALS AOI- Human Ingenuity Significant concepts- There are different types of materials whose different properties could be investigated. Students should know- 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 MYP Unit Question- What do you mean by the word material?</p> <p>TOPIC- MAJOR ORGAN SYSTEMS AOI- Health and Social Education Significant Concepts- Health is all about Systems of living organisms working in coordination. Students should know- 1- Root, stem, leaf, flower and bud are main organs of plant.</p>	<p>CRITERIA A One World</p> <p>CRITERIA B Communication In science</p> <p>CRITERIA C 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>Connected to- 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>MYP Unit Question- Many people claim that they do not have time to exercise. How would you motivate such people?</p>				
OCT	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p>TOPIC- LIVING THINGS IN THEIR ENVIRONMENT</p> <p>AOI- Environments/community and service</p> <p>Significant Concepts- Living organisms are adapted according to their habitats. Any disturbance in the food chain affects the environment adversely.</p> <p>Students should know-</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>MYP Unit Question- Why do we prefer to live in our own habitat?</p>	<p>CRITERIA A One World</p> <p>CRITERIA B Communication in Science</p> <p>CRITERIA C 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>Connected to- Language A (English), Art</p>
NOV	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p>TOPIC- MEASUREMENTS</p> <p>AOI- Human Ingenuity</p> <p>Significant Concepts- Accuracy in</p>	<p>CRITERIA- C 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>Connected to- Mathematics, Humanities</p>

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

	<p>Significant concepts- Classification of Living things. Variations in living things and cause of variations.</p> <p>Students should know-</p> <ol style="list-style-type: none"> 1- Scientists have classified living things as Animals, Plants, Monera, Protista and Fungi and named them as kingdoms. 2-vertebrate and invertebrate are the two groups of animal kingdom. 3- Invertebrates include jellyfish, flatworms, annelids, nematodes, arthropods, mollusca and echinoderms as sub-groups. 4- Arthropods have classes like myriapods, crustaceans, insects and arachnids. 5- Vertebrates include groups like fish, amphibians, reptiles, birds and mammals. 6- Plant kingdom includes angiosperms and gymnosperms. 7- Viruses. 8- Fungi 9- Species. 10- spider key and numbered key for identification of living things. 11- Variation between species. 12- Variations within species. a- continuous b- discontinuous. 13- Causes of variation <p>MYP Unit Question- What is the importance of classifying things?</p>	<p>Science</p> <p>CRITERIA E</p> <p>Processing Data</p>	<p>Communicator (E) Knowledgeable (C, E)</p>	<p>Information Literacy</p>	
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JAN	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p>TOPIC- FORCES AND MOTION AOI- Environments Significant concepts- Force and its effect on other physical quantities. Students should know- 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. MYP Unit Question- Why different things around you move differently?</p> <p>TOPIC- MICROORGANISMS AOI- Health and Social Education Significant concepts- Microorganisms are divided into 3 main kingdoms – Fungi, Monera and Protocista, Life cycle of Viruses Students should know- 1- Growth and multiplication of microorganisms - Fungi, Monera and Protocista, 2- The usefulness and the diseases caused by these microorganisms, 3- Decomposers – as Recyclers MYP Unit Question – Can you see anything around you in the air with naked eyes?</p>	<p>CRITERIA- C Knowledge and Understanding of science</p> <p>CRITERIA E Processing Data</p>	Thinker(C, ,E) Risk Taker (C) Reflective(C, E) Knowledgeable (C) Communicator (E)	Focus on- Reflection Thinking Transfer Communicator	Connected to- Mathematics
FEB	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p>TOPIC- ENERGY AOI- Environments, Community and service</p>	<p>CRITERIA A One World</p>	Inquirer (A) Thinker (A, C) Communicator	Focus on- Organization Reflection	Connected to- Language A (English), Art

<p>Significant concepts- Energy enables to exert force and do work.</p> <p>Students should know-</p> <ol style="list-style-type: none"> 1- Scientific meaning of energy. 2- Different forms of energy- <ol style="list-style-type: none"> a- heat energy, b- radiation energy, c- light energy, d- sound energy, e- electrical energy, f- chemical energy, g- Stored energy 3- Transformation of energy 4- Fuels, 5- Fossil fuels <p>MYP Unit Question- Why should energy be given so much importance in our life?</p> <p>TOPIC- ENERGY TRANSFERS</p> <p>AOI- Environments</p> <p>Significant concepts- Energy is never lost, it is transformed. Work and energy are measured in Joule. Energy can neither be created nor destroyed-</p> <p>Students should know-</p> <ol style="list-style-type: none"> 1- Energy transformation is vital for survival. 2-measuring work. 3-Energy transfer diagrams. 4-Plants and energy. 5-Energy and ourselves. 6-Generating electricity. 7- Conservation of energy. <p>MYP Unit Question- How can you carry</p>	<p>CRITERIA B Communication in science</p> <p>CRITERIA C 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>	
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	energy from one place to another?				
MARCH	GRADE 6 (SCIENCE)	OBJECTIVE	LEARNER PROFILE	ATL	INTERDISCIPLINARY
	<p>TOPIC- PEOPLE AND THE PLANET</p> <p>AOI- Environments</p> <p>Significant concepts- To know the environment of early times and compare with today's to understand the impact of human activities on our environment.</p> <p>Students should know-</p> <ol style="list-style-type: none"> 1-Fossil fuels, renewable and non-renewable resources. 2- Changes on land, in sea and in the atmosphere. 3- The green house effect. 4- Acid rain. 5- The ozone layer. 6- Cutting energy use. 7- Recycling and re-using. 8- The work of government and companies. <p>MYP Unit Question- What results would you predict if human activities were having an environmental impact?</p> <p>TOPIC- FINDING THE AGE OF THE EARTH</p> <p>AOI- Environment</p> <p>Significant concepts- Formation of rocks and fossils and estimating their age.</p> <p>Students should know-</p> <ol style="list-style-type: none"> 1-Landscape 2- Rock layers, time periods, time scale 3- How fossils are formed? 	<p>CRITERIA A</p> <p>One World</p> <p>CRITERIA B</p> <p>Communication in Science</p> <p>CRITERIA C</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>Connected to-</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. MYP Unit Question- What happened to the certain groups of animals that were present about 200 million years ago?</p> <p>TOPIC- THE EARTH AND BEYOND AOI- Environments Significant concepts- Movements in the sky. Measuring with light. The moon. The solar system. The Milky Way and beyond the Milky Way. Students should know- 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. MYP Unit Question-What do you see when you gaze at the sky in the night?</p>				
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