

Subject Group Overview

Unit title	Key concept	Related Concept(s)	Global context & Exploration	Statement of inquiry	MYP subject specific objectives and strands	Content (topics, knowledge, skills)
Earth's Systems and Patterns: Earth's Spheres (Units C, D, E) (50 days)	Systems	Energy Interaction	GC: Globalization and sustainability Ex: human impact on the environment	Energy, systems and resources react to sustain human civilization on Earth.	A: all strands B: all strands D: i, iii, iv	Students will examine the spheres Students will examine the nature of energy within the spheres (systems) which make up our world. Students will examine the interaction between spheres (systems) which make up our world. Students will examine the interactions between our spheres (systems) which make up our world sustain life.
Nature of Science (A and B) (25 days)	Relationships	Interactions Patterns	GC: Scientific and Technical Innovation Ex:	Relationships in systems, processes and solutions are based on patterns and interactions between variables.	A, B, C, D: All strands	Scientific understanding comes from planning and carrying out scientific investigations of various types such as observations or experiments, identifying variables, collecting, organizing and interpreting data with use of charts, tables, and graphics, analyzing information, predicting, and defending conclusions. Investigations must be

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						<p>designed so that other scientists can replicate the experiment.</p> <p>Scientific knowledge changes as new discoveries or interpretations are encountered.</p> <p>Scientists come from diverse backgrounds and have a variety of talents, interests, and goals.</p>
<p>Organization and Change within Living Organisms: Cells</p>	Form	Function Interaction	<p>GC: Scientific and Technical Innovation</p> <p>Ex: Systems</p>	The form, function and interaction of smaller parts define a system.	A: All strands	<p>The scientific Theory of Cells (cell theory) explains all organisms are composed of cells (single cellular or multi-cellular), all cells come from preexisting cells, and cells are the basic unit of life.</p> <p>Cells of all organisms undergo similar processes to maintain homeostasis, including extracting energy from food, getting rid of waste, and reproducing.</p> <p>Cells of all organisms undergo similar processes to maintain homeostasis, including extracting energy from food, getting rid of waste, and reproducing.</p>

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						<p>Plant and animal cells have similar and different organelles related to function.</p> <p>Cells can be classified as prokaryotes or eukaryotes.</p> <p>The lifetime of the cell, known as the cell cycle, may include a stage of cell reproduction.</p> <p>Cell membranes are a highly selective barrier.</p>
Weather, Climate and Global Patterns	Change	Energy Patterns	Scientific and Technical Innovation Systems	Changes in energy establish to patterns in systems.	A: i, ii C: ii D: i	<p>Students will examine the change in conditions which cause global weather patterns.</p> <p>Students will examine the types of energy which drives global weather patterns</p> <p>Students will examine & describe global weather patterns.</p> <p>Students will examine global weather systems and identify patterns & connections.</p>
Weathering, Erosion and Deposition	Change	Energy Movement	Scientific and Technical Innovation Systems	Changes in energy cause movement within systems.	A: i, ii C: ii D: i, ii, iii	<p>Students will examine how Earth's surface has changed over time.</p> <p>Students will examine how</p>

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						<p>energy causes changes in matter.</p> <p>Students will examine how changes of energy cause movement.</p> <p>Students will examine how the atmosphere and hydrosphere of Earth fit together as a system.</p>
Energy in Motion	Change	Energy	Scientific and Technical Innovation Systems	Changes in energy are evident in systems.	A: i, ii C: all strands D: i, ii, iii	<p>Students will identify different types of energy changes.</p> <p>Students will examine various forms of energy.</p> <p>Students will examine how energy changes within systems.</p>
Diversity Within and Among Organisms	Relationships	Interactions	Scientific and Technical Innovation Systems	We thrive in systems built on interacting relationships	C: i, ii D: i, ii, iii	<p>Students will examine the organizational relationships of living organisms.</p> <p>Students will examine the interactions between different organisms.</p> <p>Students will examine the systems making up the human body.</p>

