

## Science

Topic	Key Concepts	Related Concepts	Theme	ATL skills	Lines of Inquiry
<p>Stand-alone: Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.</p> <p>Stand-alone: introduction to the scientific method</p>	<p>Perspective</p> <p>Change</p> <p>Causation</p>		<p><b>Who We Are</b></p> <p><b>Central Idea:</b></p> <p>How a person thinks and feels about themselves shapes them as a learner.</p>	<p><b>Thinking Skills</b></p> <p>Reflections/metacognition skills (reconsidering the process of learning)</p> <p><b>Communication Skills</b></p> <p>Literacy skills (reading, writing and using language to gather and communicate information)</p> <p><b>Self Management Skills</b></p> <p>States of mind (mindfulness, perseverance, emotional management, self-motivation, resilience)</p>	<p>- Factors that influence self-identity</p> <p>- How a growth mindset develops a learner</p> <p>- Our responsibility toward others</p>
<p>Integrated:</p> <p>Use information from several sources to provide evidence that Earth events can occur quickly or slowly.</p> <p>Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.*</p> <p>Develop a model to represent the shapes and kinds of land and bodies of water in an area.</p> <p>Obtain information to identify where water is found on Earth and that it can be solid or liquid.</p> <p>Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>Form</p> <p>Function</p> <p>Change</p>		<p><b>How the World Works</b></p> <p><b>Central Idea:</b></p> <p>Earth is constantly changing through natural forces and human influences.</p>	<p><b>Research Skills</b></p> <p>Media literacy skills (interacting with media to use and create ideas and information)</p> <p>Information-literacy skills (formulation and planning, data gathering and recording, synthesising and interpreting, evaluating and communicating)</p> <p><b>Self Management Skills</b></p> <p>Organization skills (managing time and tasks effectively)</p>	<p>- Structure of Earth's land and water</p> <p>- How Earth revolves and rotates</p> <p>- How natural forces have changed the Earth's physical features</p>



<p>Stand-alone: Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.*</p> <p>Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>Function Responsibility Connection</p>		<p>HWOO: Communities provide interconnected services to meet people's needs.</p>	<p><b>Research Skills</b> Media literacy skills (interacting with media to use and create ideas and information) Information-literacy skills (formulation and planning, data gathering and recording, synthesising and interpreting, evaluating and communicating)</p> <p><b>Self Management Skills</b> Organization skills (managing time and tasks effectively)</p>	<ul style="list-style-type: none"> <li>- Structure of Earth's land and water</li> <li>- How Earth revolves and rotates</li> <li>- How natural forces have changed the Earth's physical features</li> </ul>
<p>Integrated: Plan and conduct an investigation to determine if plants need sunlight and water to grow. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.* Make observations of plants and animals to compare the diversity of life in different habitats.</p> <p>Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>Form Connection Responsibility</p>	<p>Plant and animal diversity and interactions, plant growth, pollination and seed dispersal</p>	<p>STP: Maintaining balanced ecosystems supports life on Earth.</p>	<p><b>Research Skills</b> Media literacy skills (interacting with media to use and create ideas and information) Ethical use of media/information (understanding and applying social and ethical technology)</p> <p><b>Self Management Skills</b> Organization skills (managing time and tasks effectively)</p>	<ul style="list-style-type: none"> <li>- How ecosystems support life</li> <li>- The interdependent relationships in ecosystems</li> <li>- How humans affect the balance</li> </ul>
<p>Stand-alone: Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.</p>	<p>Causation Change Perspective</p>		<p>WWPT: Human movement is a response to challenges, risks, and opportunities.</p>	<p><b>Communication Skills</b> Exchanging-information skills (listening, interpreting, speaking)</p> <p><b>Thinking Skills</b> Critical-thinking skills (analysing and evaluating issues and ideas) Transfer skills (using skills and knowledge in multiple contexts)</p>	<ul style="list-style-type: none"> <li>- Reasons why people move</li> <li>- How migrations leads to change</li> <li>- Personal immigration histories</li> </ul>



Stand-alone: Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.	Form Change Causation		HWEO: People use their imagination and experiences to create stories that others can connect to.	<b>Social Skills</b> Developing social-emotional intelligence  <b>Thinking Skills</b> Creative-thinking skills (generating novel ideas and considering new perspectives)	- How people express themselves through stories - The creative process - Different ways stories can be expressed
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Taking Action

Taking action is one of the five essential elements of the PYP and an intricate part of the inquiry cycle which could be interpreted as a “conclusion” to learning. When taking action, students make connections to new knowledge they have acquired and apply their skills in everyday life.

