

Time frame	Unit title	Key and Related Concepts	Global context and exploration	Statement of inquiry	Objective/Objective strands	ATL skills	Content
20 hours	Thinking Like a Scientist - Unit 1	Relationship Evidence Patterns	Scientific and Technical innovation: Methods	Relationships need evidence and patterns to establish methods	A, B, C, D: All strands	<ul style="list-style-type: none"> <li>* Thinking Creative Thinking Skills Make guesses, ask "what if" questions and generate testable hypotheses</li> <li>* Thinking Creative Thinking Skills Practice visible thinking strategies and techniques</li> </ul>	<p>Scientific investigations are the result of logical reasoning to make sense of collected evidence.</p> <p>When conducting your investigation, the data will either support or fail to support your hypothesis.</p> <p>The process of planning the scientific investigations is the same in all fields of science but the methods of conducting the investigation may differ. Understand the importance of a scientific theory and the role it plays in science.</p>
25 hours	Plate Tectonics- Unit 2	Change Movement Evidence	Orientation in Space and Time: Natural and human landscapes and resources	Evidence is created when change and movement effect natural and human landscapes and resources.	A: all strands C: all strands	<ul style="list-style-type: none"> <li>• Self-management Reflective skills Consider personal learning strategies – What can I do to become a more efficient and effective learner? – How can I become more flexible in my choice of learning strategies? – What factors are important for helping me learn well?</li> <li>• Thinking Critical Thinking Skills Identify trends and forecast possibilities.</li> </ul>	<p>Students will demonstrate knowledge and understanding of Plate Tectonics.</p> <p>An understanding of how plates are formed, how they move, and what causes them to move. Evidence of mantle convection. The outer portion of the planet, or lithosphere.</p>
15 hours	Matter and Molecules- Unit 3	Relationships transformation Movement	Orientation in Space and Time: Ex:exchange and interaction	The relationships transformation is enhanced by movement during an exchange and interaction.	B, C: all strands	<ul style="list-style-type: none"> <li>• Self-management Affective skills Practice strategies to overcome impulsiveness and anger</li> <li>• Thinking Critical Thinking Skills Interpret data</li> </ul>	<p>An understanding of the scientific theory of atoms (atomic theory) by investigating the composition of atoms. Protons, neutrons, and electrons can be differentiated in terms of their mass, electrical charges, and their locations within the atom. Year 3 Science Scientific theory of atoms (atomic theory) can be used to explain the motion of particles. The difference between weight and mass. Understand the concept of density in various materials. Matter can be broken up into four states. Substances can be characterized based on their physical properties. Know the difference between mixtures, solutions, and pure substances. The law of conservation of mass and how it applies to substances that go through physical and chemical changes. Physical changes and chemical changes can result in similar or very different substances. Chemical changes can be affected by changes in temperature.</p>
20 hours	Cycles in Chemistry - Unit 4	Systems Balance Movement	Scientific and Technical Innovation: Models	Balance and movement within systems demonstrates models.	A: all strands C: all strands	<ul style="list-style-type: none"> <li>• Thinking Critical Thinking Skills Revise understanding based on new information and evidence</li> <li>• Thinking Critical Thinking Skills Evaluate evidence and arguments</li> </ul>	<p>The function of the carbon cycle and the transfer of energy. The role of the law of conservation of mass and the law of conservation of energy in all living systems.</p>
15 hours	Space - Unit 5	Relationships Interaction Consequences	Scientific and Technical Innovation: systems	Interaction and relationships form consequences throughout systems	A, C, D: all strands	<ul style="list-style-type: none"> <li>• Thinking Creative thinking skills Practice visible thinking strategies and techniques</li> <li>• Thinking Critical thinking Skills Propose and evaluate a variety of solutions Use models and simulations to explore complex systems and issues.</li> </ul>	<p>Stars are classified based on their physical properties. Scientists apply the knowledge of light and space travel to understand the distances between objects in space. The vastness of the universe. Objects in our solar system can have vastly different properties. Relationships between planets and other astronomical bodies Relative to the solar system, galaxy, and the universe. The law of universal gravitation is used to explain the role that gravity plays in the formation of galaxies. Models of the solar system</p>