



OVERVIEW INTEGRATED SCIENCES GRADE 6

Unit title and teaching hours	Key Concept	Related concepts	Global Context	Statement of inquiry	Objectives	ATL Skills	Brief description of content
<b>Scientists and Solutions</b>	Relationships	Evidence Models	Scientific and technical innovation	In the process of scientific and technical innovation, scientists observe, gather evidence and make use of models to better understand how things are related.	A B C	<p>Communication skills:</p> <p>Give and receive meaningful feedback</p> <p>Social skills:</p> <p>Listen actively to other perspectives and ideas</p> <p>Self-management skills:</p> <p>Bring necessary equipment and supplies to class</p> <p>Resilience: Practise dealing with change</p> <p>Research skills:</p> <p>Process data and report results</p> <p>Thinking skills:</p> <p>Draw reasonable conclusions and generalizations</p>	<p>-lab safety</p> <p>-design, conduct and evaluate the method of a scientifically controlled investigation.</p> <p>-What do scientists do?</p> <p>-organize and process data</p> <p>-pure and impure substances</p> <p>-laboratory skills</p> <p>-density, states of matter, kinetic particle theory.</p> <p><b>-classify mixtures, separate mixtures</b></p> <p>-solubility, crystallisation</p> <p>-thermal expansion and contraction of substances</p>
<b>Change!</b>	Change	Energy Models Environment	Globalization and sustainability	Through our understanding of energy we can make changes that have an impact on our environment, locally and globally.	A B C D	<p><b>Communication skills:</b></p> <p>use a variety of media to communicate with a range of audiences</p> <p>organize and depict information logically</p>	<p>-kinds of energy , energy transformation</p> <p>-potential and kinetic energy</p> <p>-temperature</p> <p>-thermal (internal) energy in terms of the kinetic energy of particles</p> <p>- <b>electrical energy</b></p>



						<p><b>Social skills:</b> delegate and share responsibility for decision-making</p> <p><b>Self-management skills:</b> select and use technology effectively and productively</p> <p><b>Research skills:</b> access information to be informed and inform others process data and report results</p> <p><b>Thinking skills:</b> gather and organize relevant information to formulate an argument</p>	<p>-heat transfer processes: conduction, convection, radiation -thermal conductors and insulators <b>Solar -system</b> -geosphere (and lithosphere), hydrosphere (and Cryosphere), atmosphere, biosphere (androsphere) -Earth's interior: inner core, outer core, mantle, crust - formation and development of the Earth - Troposphere, Stratosphere, Mesosphere, Thermosphere, Exosphere - geologic time</p>
Are all living things different?	Relationships	Form and Function Balance	Globalization and sustainability	By understanding the balanced <b>relationship</b> between the necessities of life and the specialized <b>forms</b> and <b>functions</b> of living things, we can make decisions to support healthier and more <b>sustainable</b> lifestyles.	A B C	<p><b>Social skills:</b> Encourage others to contribute</p> <p><b>Self-management skills:</b> Mindful awareness: Practise strategies to overcome distractions</p> <p><b>Research skills:</b> Locate, organize, analyse, evaluate,</p>	<p>-characteristics of all living things -necessities of all living things -specialized structures of different species -the relationship between specialized structures and their functions -specialized characteristics of different species -specialized necessities of different species -decisions and actions are limited by the characteristics of living things -characteristics of all ecosystems</p>



						<p>synthesize and ethically use information from a variety of sources and media</p> <p><b>Critical-thinking skills:</b></p> <p>Revise understanding based on new information and evidence</p>	<p>-populations -habitats -abiotic and biotic factors in ecosystems -biomes -biomes of the world interactions between organisms in healthy ecosystems -scientific innovations that have helped to keep ecosystems healthy and in balance</p>
<p><b>Science Fair</b></p> <p><b>7.5</b></p>	Systems	Interaction Balance	Scientific and technical innovation	<p><b>In the process of scientific and technical innovation, scientists have developed and experimented with models</b> to better understand relationships between variables.</p>	A B C D	<p><b>Communication skills:</b></p> <p>Find information for disciplinary and interdisciplinary inquiries, using a variety of media</p> <p><b>Social skills:</b></p> <p>Take responsibility for one's own actions</p> <p><b>Self-management skills:</b></p> <p>Plan short- and long-term assignments; meet deadlines Plan strategies and take action to achieve personal and academic goals</p>	<p>Science Fair</p> <p>Students design, carry out and evaluate a scientifically controlled investigation.</p>

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					<p>Practise strategies to reduce stress and anxiety Keep a journal to record reflections</p> <p><b>Research skills:</b> Collect, record and verify data Create references and citations, use footnotes/endnotes and construct a bibliography according to recognized conventions</p> <p><b>Thinking skills:</b> Practise observing carefully in order to recognize problems</p>	
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