

## SCIENCE 6–9 CURRICULUM UNIT DEVELOPMENT

	Grade 6	Grade 7	Grade 8	Grade 9
<p><b>Dimensions of Scientific Literacy</b></p> <p><b>A. Nature of Science</b></p> <p><b>B. Key Science Concepts</b></p>	<p><b>Chemicals and Reactions</b></p> <ul style="list-style-type: none"> <li>· Diversity of Chemical Substances</li> <li>· Characteristics of Elements</li> <li>· Chemical and Physical Properties</li> <li>· Forms of Expressions for Atoms and Reactions</li> <li>· Evaluate Ideas, Processes, Experiences and Objects</li> </ul>	<p><b>Basics of Life</b></p> <ul style="list-style-type: none"> <li>· Characteristics and Processes of Living Organisms</li> <li>· How Organisms Meet Basic Needs</li> <li>· Appreciation and Understanding of Life</li> <li>· Describe and Evaluate Ideas and Processes re: Environment</li> </ul>	<p><b>Adaptation and Succession</b></p> <ul style="list-style-type: none"> <li>· How Abiotic Components of an Ecosystem Support Life</li> <li>· How Living Things Alter Their Environment</li> <li>· Develop Positive Disposition to Life–Long Learning</li> </ul>	<p><b>Saskatchewan – The Environment</b></p> <ul style="list-style-type: none"> <li>· Diversity of Ecological Regions</li> <li>· Effects of Human Activity on Landscapes</li> <li>· Making Positive Contributions to Society</li> </ul>
<p><b>C. Processes of Science</b></p> <p><b>D. Science– Technology/Society/Environmental Interrelationships</b></p> <p><b>E. Scientific and Technical Skills</b></p>	<p><b>Earthquakes and Volcanoes</b></p> <ul style="list-style-type: none"> <li>· Causes and Effects</li> <li>· Theory of Plate Tectonics</li> <li>· Using Wide Range of Possibilities for Knowledge</li> <li>· Understanding How Knowledge is Created, Evaluated, Refined and Changed</li> </ul>	<p><b>Saskatchewan – The Land</b></p> <ul style="list-style-type: none"> <li>· Effects of Glaciation</li> <li>· Weathering Processes</li> <li>· How Natural and Human Forces Shape the Land</li> <li>· How Knowledge re: Glacial Period is Created, Evaluated, Refined and Changed</li> <li>· vocabulary and Forms of Expression Used by Ecologists and Geographers</li> </ul>	<p><b>The Moving Crust</b></p> <ul style="list-style-type: none"> <li>· Drifting Continents</li> <li>· Effects of Moving Crustal Plates</li> <li>· Geological History of Saskatchewan to Movement of North American Plate</li> <li>· Vocabulary and Forms of Expression of Earth Science</li> <li>· How Knowledge is Created, Refined and changed within Science</li> </ul>	<p><b>Chemistry and You</b></p> <ul style="list-style-type: none"> <li>· All Materials Have a Chemical Composition</li> <li>· Chemical Reactions</li> <li>· How Knowledge is Created, Evaluated, Refined and changed with Science</li> </ul>
<p><b>F. Values that Underlie Science</b></p> <p><b>G. Science–Related Interests and Attitudes</b></p>	<p><b>Ecosystems</b></p> <ul style="list-style-type: none"> <li>· Factors Influencing Ecosystem</li> <li>· Effects of Change in Ecosystem</li> <li>· Preserving Ecosphere</li> <li>· Interaction in the Ecosphere</li> <li>· Impact of Technology</li> </ul>	<p><b>Force and Motion</b></p> <ul style="list-style-type: none"> <li>· Relationship Between Forces and Motion</li> <li>· Forces Influencing Motion</li> <li>· Forces Used to Control Motion</li> <li>· Develop Students' Ability to Meet Learning Needs</li> <li>· How Mathematical Processes Apply to the Study of Force and Motion</li> </ul>	<p><b>Solutions</b></p> <ul style="list-style-type: none"> <li>· Distinguish Solutions for Mixtures</li> <li>· Properties of Solutions</li> <li>· Develop Abilities to Meet Personal Learning Needs</li> </ul>	<p><b>Using Electricity</b></p> <ul style="list-style-type: none"> <li>· Properties of Static Electricity</li> <li>· Principles of Electric Circuits</li> <li>· Relationship Between Electricity and Magnetics</li> <li>· Value and Limitations of Technology</li> </ul>
	<p><b>Exploring Space</b></p> <ul style="list-style-type: none"> <li>· Role of Satellites and Space Probes</li> </ul>	<p><b>Structures and Design</b></p> <ul style="list-style-type: none"> <li>· Elements of Design</li> <li>· Principles of Good Design</li> </ul>	<p><b>Energy Resources in Saskatchewan</b></p> <ul style="list-style-type: none"> <li>· Formation and Extraction of Coal, Natural Gas and Petroleum</li> </ul>	<p><b>Risks and Limits</b></p> <ul style="list-style-type: none"> <li>· Risks Associated with all Activities</li> </ul>

	<ul style="list-style-type: none"> <li>· Future of Space Explorations</li> <li>· Value and Limitations of Technology</li> </ul>	<ul style="list-style-type: none"> <li>· Contemporary view of Technology</li> <li>· Evaluate Ideas, Processes, Experiences and Objects</li> </ul>	<ul style="list-style-type: none"> <li>· Creations and Patterns of Fossil Fuels</li> <li>· Conservation of and Energy Derived from Fossil Fuels</li> <li>· Making Positive Contribution to Society</li> </ul>	<ul style="list-style-type: none"> <li>· Activities Have Risks and Benefits</li> <li>· Develop Understanding of Cultural Aspects of Study of Life</li> </ul>
	<p>Energy in Our Lives</p> <ul style="list-style-type: none"> <li>· Forms of Energy</li> <li>· Impact of Light, Sound and Electrical Energy</li> <li>· Contemporary View of Technology</li> </ul>	<p>Renewable Resources in Saskatchewan</p> <ul style="list-style-type: none"> <li>· Recognize renewable resources</li> <li>· Compare renewable and non-renewable resources</li> <li>· Critical Attributes of Renewable Resources</li> <li>· Develop Critical and Creative Thinkers</li> </ul>	<p>Earth and Space</p> <ul style="list-style-type: none"> <li>· Movement of Planets and Other bodies in Solar System</li> <li>· Conditions Governing Life in Space</li> <li>· Interstellar Travel</li> <li>· Decision Making about Space Exploration</li> </ul>	<p>The Atmosphere</p> <ul style="list-style-type: none"> <li>· Dynamic Nature of the Atmosphere</li> <li>· Effects of Human Activity on the Atmosphere</li> <li>· Vocabulary and Forms of Expression Characterizing the Study of Science</li> </ul>
Optional Units	<ul style="list-style-type: none"> <li>· Growth and Development</li> <li>· Human body Control Systems</li> <li>· Earth's Climate</li> </ul>	<ul style="list-style-type: none"> <li>· Microorganisms</li> <li>· Temperature and Heat</li> <li>· Resource Use</li> </ul>	<ul style="list-style-type: none"> <li>· Consumer Product Testing</li> <li>· Plant Growth</li> <li>· Energy and Machines</li> </ul>	<ul style="list-style-type: none"> <li>· The Atmosphere</li> <li>· Fluids and Pressure</li> <li>· Diversity of Life</li> </ul>