

<p><b>Course Overview</b></p>	<p>Science 10 consists of four units of study:  A. Energy and Matter in Chemical Change  B. Energy Flow in Technological Systems  C. Cycling of Matter in Living Systems  D. Energy Flow in Global Systems</p>
<p><b>Prerequisite</b></p>	<p><i>Please refer to Alberta Education's Provincially Authorized Senior High School Courses and Course Codes Document</i></p>
<p><b>Required Materials &amp; Resources</b></p>	<ul style="list-style-type: none"> <li>• Four Modules and Four Assignment Books</li> <li>• Textbook: Science 10, Pearson Addison Wesley, 2004</li> </ul>
<p><b>Learning Outcomes</b></p>	<p><b><i>The student will:</i></b></p> <ol style="list-style-type: none"> <li>A. describe the basic particles that make up the underlying structure of matter, and investigate related technologies</li> <li>B. explain, using the periodic table, how elements combine to form compounds, and follow IUPAC guidelines for naming ionic compounds and simple molecular compounds</li> <li>C. identify and classify chemical changes, and write word and balanced chemical equations for significant chemical reactions, as applications of Lavoisier's law of conservation of mass</li> <li>D. analyze and illustrate how technologies based on thermodynamic principles were developed before the laws of thermodynamics were formulated</li> <li>E. explain and apply concepts used in theoretical and practical measures of energy in mechanical systems</li> <li>F. apply the principles of energy conservation and thermodynamics to investigate, describe and predict efficiency of energy transformation in technological systems</li> <li>G. explain the relationship between developments in imaging technology and the current understanding of the cell</li> <li>H. describe the function of cell organelles and structures in a cell, in terms of life processes, and use models to explain these processes and their applications</li> <li>I. analyze plants as an example of a multicellular organism with specialized structures at the cellular, tissue and system levels</li> <li>J. describe how the relationships among input solar energy, output terrestrial energy and energy flow within the biosphere affect the lives of humans and other species</li> <li>K. analyze the relationships among net solar energy, global energy transfer processes—primarily radiation, convection and hydrologic cycle—and climate.</li> <li>L. relate climate to the characteristics of the world's major biomes, and compare biomes in different regions of the world</li> <li>M. investigate and interpret the role of environmental factors on global energy transfer and climate change</li> </ol>
<p><b>Note</b></p>	<p><b><i>Within Alternative Education all teachers are required to follow a common course outline and gradebook set up.</i></b></p>
<p><b>Assessment</b></p>	<p>The student's grade is determined by the knowledge the student has acquired based on the program of studies and the skills the student is able to show in articulating his or her knowledge.</p> <p>The student's grade will be calculated based on the following:</p> <p><b>Coursework –25%</b></p> <p><b>Quizzes– 25%</b></p> <p><b>Midterm – 25%</b></p> <p><b>Final Exam – 25%</b></p>

<b>Topics of Study</b>	<table border="1"> <thead> <tr> <th data-bbox="282 58 440 92">MODULE</th> <th data-bbox="440 58 1511 92">TITLE</th> </tr> </thead> <tbody> <tr> <td data-bbox="282 92 440 126">1</td> <td data-bbox="440 92 1511 126"><i>Energy and Matter in Chemical Change</i></td> </tr> <tr> <td data-bbox="282 126 440 159">2</td> <td data-bbox="440 126 1511 159"><i>Energy Flow in Technological Systems</i></td> </tr> <tr> <td data-bbox="282 159 440 193">3</td> <td data-bbox="440 159 1511 193"><i>Cycling of Matter in Living Systems</i></td> </tr> <tr> <td data-bbox="282 193 440 222">4</td> <td data-bbox="440 193 1511 222"><i>Energy in Global Systems</i></td> </tr> </tbody> </table>	MODULE	TITLE	1	<i>Energy and Matter in Chemical Change</i>	2	<i>Energy Flow in Technological Systems</i>	3	<i>Cycling of Matter in Living Systems</i>	4	<i>Energy in Global Systems</i>
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<b>An Important Note About Assessment</b>	<p>A wide range of assessment information is used in the development of a student's final grade. Within Alternative Education, individualized assessments provide specific information regarding student progress and overall performance in the course. Student assessments may vary from student to student to adapt to differences in student needs, learning styles, preferences and paces. The teacher will apply best teaching practices to determine appropriate assessment.</p>										
<b>TEACHER'S CONTACT INFORMATION:</b>											
<b>Teacher's Name:</b>											
<b>Teacher's Phone Number:</b>											
<b>Teacher's Email Address:</b>											