



<b>Contact Information</b>	Teacher Name: Site Phone Number: Teacher Email:
<b>Prerequisite</b>	A mark of at least 50% in Science 9.
<b>Required Materials &amp; Resources</b>	<ul style="list-style-type: none"> <li>• Four modules and four assignment books</li> <li>• Textbook: Science 10, Pearson Addison Wesley, 2004</li> <li>• Science 10 data booklet</li> <li>• Scientific calculator</li> </ul>

**Course Overview**

Science 10 consists of four units of study, as outlined below. These units emphasize the nature of science, science and technology and science in societal and environmental contexts.

<b>Unit</b>	<b>Topics of Study</b>	<b>Weighting</b>
A. Energy and Matter in Chemical Change	<ul style="list-style-type: none"> <li>• particle model of matter</li> <li>• WHMIS symbols, pure substances, mixtures, and solutions</li> <li>• reactants, products, conservation of mass, periodic table, elements, compounds, atomic theory, chemical nomenclature</li> <li>• acids and bases</li> </ul>	25%
B. Energy Flow in Technological Systems	<ul style="list-style-type: none"> <li>• heat energy needs and technologies, thermal energy, heat transfer, energy conservation</li> <li>• forces on and within structures, direction of forces</li> <li>• transmission of force and motion, simple machines, measurement of work in joules</li> <li>• forms of energy, energy transformation, renewable and nonrenewable energy</li> <li>• represent large and small numbers using appropriate scientific notation and appropriate significant digits</li> <li>• select and use appropriate numeric, symbolic, graphical and linguistic modes of representation to communicate ideas, plans and results</li> </ul>	25%
C. Cycling of Matter in Living Systems	<ul style="list-style-type: none"> <li>• microscopy and the emergence of cell theory</li> <li>• cellular structures and functions, and technological applications</li> <li>• active and passive transport of matter</li> <li>• relationship between cell size and shape, and surface area to volume ratio</li> <li>• use of explanatory and visual models in science</li> <li>• cell specialization in multicellular organisms: i.e., plants</li> <li>• mechanisms of transport, gas exchange, and environmental response in multicellular organisms: i.e., plants</li> </ul>	25%
D. Energy Flow in Global Systems	<ul style="list-style-type: none"> <li>• environmental monitoring, environmental impacts, energy flow, environmental management</li> <li>• thermal energy, change of state, heat transfer</li> <li>• climate, glaciers, and icecaps</li> <li>• biological diversity, habitat diversity</li> </ul>	25%

<b>Assessment</b>	<p>The student's grade will be calculated based on the following:</p> <table border="1" data-bbox="326 331 1227 407"> <tr> <td data-bbox="326 331 943 369">Coursework</td> <td data-bbox="943 331 1227 369">20%</td> </tr> <tr> <td data-bbox="326 369 943 407">Unit Evaluations – quizzes, exams, labs, projects</td> <td data-bbox="943 369 1227 407">80%</td> </tr> </table> <p>*Final Grade: 75% School awarded mark + 25% District Common Summative Assessment.</p> <p>Parents and students are encouraged to keep up to date on PowerSchool and contact their teacher if there are any issues.</p>	Coursework	20%	Unit Evaluations – quizzes, exams, labs, projects	80%
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<b>Important Note Regarding Assessment</b>	<p>A wide range of assessment information is used in the development of a student's final grade. In Edmonton Catholic Schools, individualized assessments provide specific information regarding student progress and overall performance in class. Assessment may vary from student to student, differentiating for various student needs. It should also be noted that not all assignments are used to determine the final grade, and that scale factors may have been used to determine the weight of individual assignments.</p>				