

<p>Course Description:</p> <p>This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to relate science to technology, society, and the environment. Throughout the course, students will develop their skills in the processes of scientific investigation. Students will acquire an understanding of scientific theories and conduct investigations related to sustainable ecosystems; atomic and molecular structures and the properties of elements and compounds; the study of the universe and its properties and components; and the principles of electricity.</p> <p>This course follows the curriculum for grade 9 science, academic (SNC 1D), with modifications to provide students with opportunities to explore concepts in greater detail, and to form cross-curricular links to mathematics and computer studies.</p>	<p>Level: Academic</p> <p>Credit Value: 1.00</p> <p>Pre-requisite: None</p> <p>Department: SCIENCE</p> <p>Teachers: Ms. Aziz, Ms. Kulasingam, Ms. Sturges</p>
	<p>Course Fees:</p> <p>In the event of possible field trip to the Toronto Zoo and Royal Ontario Museum. Approximate Cost: \$10.00</p>

<p>Textbooks & Resources:</p> <ul style="list-style-type: none"> • <i>The Ontario Curriculum Grades 9 and 10 Science, Revised 2008</i> • <i>Growing Success: Assessment, Evaluation and Reporting in Ontario Schools, First Edition, Covering Grades 1 to 12, 2010</i> • <i>Investigating Science 9</i>, Sandner, L., Ellis, C., Lacy, D., Mace, H., Nowikow, I., Webb, P., Wevers, O., Wohl, S., published by Pearson, 2009
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Course Evaluation: Student Evaluation consists of three components...

<p>1) Learning Skills & Work Habits:</p> <p>Students are evaluated on 6 Learning Skills & Work Habits and are evaluated on a scale of Excellent (E), Good (G), Satisfactory (S) & Needs Improvement (N) and reported on the report card.</p>	<p>The skills and habits consist of:</p> <ul style="list-style-type: none"> • Responsibility • Organization • Independent Work • Collaboration • Initiative • Self-Regulation 	<p>Skills and work habits are not included in the student's final mark unless specified in the curriculum expectations.</p>							
<p>2) Term Mark (Assessment of Learning):</p> <p><i>It is the student's responsibility to submit evidence of the term's learning in a complete and timely manner.</i></p> <p>Student performance standards for knowledge and skills are described in the curriculum Achievement Chart. The curriculum expectations in science are grouped in three categories as follows:</p> <ol style="list-style-type: none"> 1. Understanding Basic Concepts 2. Developing Skills of Investigation and Communication 3. Relating Science to Technology, Society, and the Environment 	<p>The term evaluation consists of:</p> <table border="1"> <tr> <td>Knowledge</td> <td>35%</td> <td rowspan="3">70%</td> </tr> <tr> <td>Thinking, Investigation, & Communication (TIC)</td> <td>25%</td> </tr> <tr> <td>Application</td> <td>10%</td> </tr> </table>	Knowledge	35%	70%	Thinking, Investigation, & Communication (TIC)	25%	Application	10%	
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Thinking, Investigation, & Communication (TIC)	25%								
Application	10%								
<p>3) Final Evaluation (Assessment of Learning):</p> <p>The final written exam will be administered during the school's final exam schedule. The final evaluation accounts for 30% of the final mark.</p>	<p>The final evaluation consists of:</p> <p>Summative evaluation (based on the entire course.)</p>	<p>30%</p>							

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Final Mark = 70% Term Mark + 30% Final Evaluations

For a detailed description on Course Evaluation, see “How Did I Get That Mark!” at www.satec.on.ca

Course Conduct Policies: See Student Agenda.

Course Outline:			
Unit	Overall Expectations	Approximate Length	Major Unit Evaluation
Biology: Sustainable Ecosystems	B1. assess the impact of human activities on the sustainability of terrestrial and/or aquatic ecosystems, and evaluate the effectiveness of courses of action intended to remedy or mitigate negative impacts; B2. investigate factors related to human activity that affect terrestrial and aquatic ecosystems, and explain how they affect the sustainability of these ecosystems; B3. demonstrate an understanding of the dynamic nature of ecosystems, particularly in terms of ecological balance and the impact of human activity on the sustainability of terrestrial and aquatic ecosystems.	4 weeks	Unit Test
Chemistry: Atoms Elements & Compounds	C1. assess social, environmental, and economic impacts of the use of common elements and compounds, with reference to their physical and chemical properties; C2. investigate, through inquiry, the physical and chemical properties of common elements and compounds; C3. demonstrate an understanding of the properties of common elements and compounds, and of the organization of elements in the periodic table.	5 weeks	Unit Test
Earth & Space Science: The Study of the universe	D1. assess some of the costs, hazards, and benefits of space exploration and the contributions of Canadians to space research and technology; D2. investigate the characteristics and properties of a variety of celestial objects visible from Earth in the night sky; D3. demonstrate an understanding of the major scientific theories about the structure, formation, and evolution of the universe and its components and of the evidence that supports these theories.	3 weeks	Unit Test
Physics	E1. assess some of the costs and benefits associated with the production of electrical energy from renewable and non-renewable sources, and analyse how electrical efficiencies and savings can be achieved, through both the design of technological devices and practices in the home; E2. investigate, through inquiry, various aspects of electricity, including the properties of static and current electricity, and the quantitative relationships between potential difference, current, and resistance in electrical circuits; E3. demonstrate an understanding of the principles of static and current electricity.	4 weeks	Unit Test
Scientific Investigation Skills and Career Exploration	A1. demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating); A2. identify and describe a variety of careers related to the fields of science under study, and identify scientists, including Canadians, who have made contributions to those fields.	Embedded within units.	
Note:	All of the above units will also include quizzes, labs, and assignments.		
Note: The order of the units of study may change due to student needs and resources available during the course.			

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<p>General Information:</p> <p>1 – As per SATEC school policy students are expected to come to class:</p> <ul style="list-style-type: none"> a) in uniform and, b) with cell phones, mp3 players etc... unseen and not in use during class time. <p>2- <u>To be successful in science, students are expected to:</u></p> <ul style="list-style-type: none"> a) come to class prepared with pen/pencil, paper, binder and resources for your particular science course, b) demonstrate academic honesty with their own work and when working with others, c) complete assignments in a timely manner and, d) follow necessary safety rules and procedures of a science lab. <p>3- <u>To seek extra help:</u></p> <ul style="list-style-type: none"> a) speak to your Science Teacher and schedule a time to meet, b) use the school's homework club to access peer tutors and/or, c) speak to your guidance counsellor to arrange for a tutor. 	<p>Science Department deadlines and plagiarism policy.</p> <ul style="list-style-type: none"> • Each assignment will have a due date. Handing in an assignment after the due date may result in a deduction of marks at the discretion of the teacher. • Students must be in class on dates of any major evaluations. IF you miss a major evaluation (i.e. unit test, exam, presentation) you must give your teacher a note written and signed by your doctor or parent stating the health reasons that kept you from class. Without a doctor's note, you will receive a mark of zero for that missed major evaluation • If you know ahead of time that you will have an appointment, field trip, game, etc at the same time as the major evaluation, you must either arrange with your teacher to complete the evaluation before the scheduled date, or cancel your other plans so you can attend the evaluation. • Plagiarism includes: copying another student's work; buying essays; copying and pasting Web info and calling it your own work; using information from print or Internet media without identifying the source. • To avoid plagiarism: Do not cheat; Do not copy. Keep your eyes on your own paper during tests and exams. Do not steal intellectual property. Reference information properly (MLA) We only need to suspect cheating to penalize you. There will be no warnings, only marks of zero.
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