

**SOUTH CARLETON HIGH SCHOOL**

**Ottawa-Carleton District School Board**

**COURSE OUTLINE**

**SNC1D - GRADE 9 Academic Science**

Credit Value: 1 credit      Hours: 110      Prerequisite: none

**Expectations**

This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science to everyday situations. They are also given opportunities to develop practical skills related to scientific investigation. Students will plan and conduct investigations into practical problems and issues related to the impact of human activity on ecosystems; the structure and properties of elements and compounds; space exploration and the components of the universe; and static and current electricity.

**Big Ideas**

<b>Unit Title</b>	<b>Science Focus For Learning Expectations</b>
<b>Biology:</b> Sustainable Ecosystems	Students will: assess the impact of human activities on terrestrial and aquatic ecosystems, and assess the effectiveness of selected initiatives related to environmental sustainability. Students will investigate factors related to human activity that affect terrestrial and aquatic ecosystems and describe the consequences that these factors have for the sustainability of these ecosystems. Students will also demonstrate an understanding of characteristics of terrestrial and aquatic ecosystems, the interdependence within and between ecosystems and the impact that humans have on the sustainability of these ecosystems.
<b>Chemistry:</b> Atoms, Elements and Compounds	Students will assess social, environmental and economic impacts of the use of common elements and compounds, with reference to their physical and chemical properties. They will investigate through inquiry, the physical and chemical properties of common elements and compounds. Students will also demonstrate an understanding of the properties of common elements and compounds and of the organization of elements in the periodic table.
<b>Earth and Space Science:</b> The Study of the Universe	Students will assess some of the costs, hazards and benefits of space exploration and the contributions of Canadians to space research and technology. They will investigate the characteristic and properties of a variety of celestial objects visible from Earth in the night sky, and 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.
<b>Physics:</b> The Characteristics of Electricity	Students will 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 saving can be achieved through both the design of technological devices and practices in the home. Investigations through inquiry using various aspects of electricity will include the properties of static and current electricity and the quantitative relationships between potential difference, current and resistance in electrical circuits. Students will demonstrate an understanding of principles of static and current electricity.

*\*NOTES: a. Specific learning expectations are available for each unit of study. b. The sequence of topics may vary.*

**Accommodations for Exceptional Students**

The Science department makes every effort to accommodate the identified needs of exceptional (IPRC'd) students and will attempt to differentiate curriculum delivery methods, student modes of expression, and assessment methods as recommended by the student's individual education plan (IEP).

**Career Planning**

The Science department makes every effort to ensure that students are aware of career opportunities related to various fields of science under study, and describe the contributions of scientists, including Canadians, to those fields.

**Technology and Textbooks**

The school will supply all laboratory resources and materials.

Textbook: *Science Perspectives 9* replacement cost = \$68.00

**Evaluation**

<b>Term Evaluations (70%)</b>	<b>Summative Evaluation (30%)</b>
Students will be evaluated according to the overall expectations of the Ontario curriculum. <i>Assessment tools include both summative and formative tasks including but not limited to; tests/quizzes, assignments, projects, lab reports, skill based performance tasks and rich assessment tasks</i>	<i>The exam portion of the summative will occur during the exam period in Jan/Jun and will evaluate the whole semester's work. All students must be present unless a medical certificate is provided.</i>  <i>Project or assignment summative evaluation will be completed before the exam period begins.</i>

More information on South Carleton High School's policy on Assessment and Evaluation, on Academic Integrity, on punctuality, absenteeism and examinations can be accessed on our school website.