

SOUTH CARLETON HIGH SCHOOL

Ottawa Carleton District School Board

COURSE OUTLINE

SNC1W – GRADE 9 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 and the engineering design process. 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

Unit Title	Science Focus For Learning Expectations
STEM Skills, Careers, and Connections	Students will apply scientific processes and an engineering design process in their investigations to develop a conceptual understanding of the science they are learning, and apply coding skills to model scientific concepts and relationships. They will analyse how scientific concepts and processes can be applied in practical ways to address real-world issues and in various careers, and describe contributions to science from people with diverse lived experiences.
Biology: Sustainable Ecosystems and Climate Change	Students will assess impacts of climate change on ecosystem sustainability and on various communities, and describe ways to mitigate these impacts. They will also demonstrate an understanding of the dynamic and interconnected nature of ecosystems, including how matter cycles and energy flows through ecosystems.
Chemistry: The Nature of Matter	Students will assess social, environmental, and economic impacts of the use of elements, compounds, and associated technologies. They will also demonstrate an understanding of the nature of matter, including the structure of the atom, physical and chemical properties of common elements and compounds, and the organization of elements in the periodic table.
Physics: Principles and Applications of Electricity	Students will assess social, environmental, and economic impacts of electrical energy production and consumption, and describe ways to achieve sustainable practices. They will also demonstrate an understanding of the nature of electric charges, including properties of static and current electricity.
Earth and Space Science: Space Exploration	Students will evaluate social, environmental, and economic impacts of space exploration and of technological innovations derived from space exploration. They will also demonstrate an understanding of the components, characteristics, and associated phenomena of the solar system and the universe, and the importance of the Sun to processes on Earth.

*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.

Evaluation

Term Evaluations (70%)	Summative Evaluation (30%)
Students will be evaluated according to the overall expectations of the Ontario curriculum. 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	Project or assignment summative evaluation will be completed before the exam period begins.

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.