

SIR WILFIRD LAURIER SECONDAREY SCHOOL
Grade 9 Science (SNC1DF) Course Outline



COURSE DESCRIPTION:

This course enables students to understand basic concepts in biology, chemistry, earth and space science, and physics; to develop skills in the processes of scientific inquiry; and to relate science to technology, society, and the environment. Students will learn scientific theories and conduct investigations related to ecosystems; atomic and molecular structures and the properties of elements and compounds; the universe and space exploration; and the principles of electricity

COURSE MATERIALS:

- ✎ Textbook: OMNISCIENCE 9
- ✎ Worksheets

COURSE CONTENT: STRANDS AND SUBGROUPS:

Biology: The Sustainability of Ecosystems

By the end of this course, students will:

- 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.

Chemistry: Atoms and Elements

By the end of this course, students will:

- 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.

Earth and Space Science: The Study of the Universe

By the end of this course, students will:

- 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.

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Physics: The Characteristics of Electricity

By the end of this course, students will:

- 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.

ATTENDANCE & MISSED EVALUATIONS

Regular attendance is an integral part of learning. Students are responsible for completing all work missed due to absence. Any missed term evaluations (e.g. test) students must complete upon return to school.

End-of course evaluations, i.e. the summative activity and final examination are term sensitive. Attendance is **mandatory** for these evaluations.

If a student participates in **academic fraud** (e.g. cheating on tests, plagiarism in assignments), he/she is deemed not to have met the expectations associated with that particular evaluations.

GENERAL COURSE INFORMATION:

Students **must bring** the following materials to each class:

- Textbook, binder with dividers and lined paper
- Scientific calculator
- Pencil case (two different coloured pens, pencils, erasers, ruler , white out)

FEE:

The student will have a textbook. Students will be responsible for the cost of replacement, or repair if the texts are lost or damaged. Text Book value \$110.00

EVALUATION

The final report card mark will be determined as follows:

Term work – 70%	Percent Weight
Lab reports, quizzes, assignments and tests	70%
Summative – 30%	Percent Weight
Activity and/or Exam	30%