

SNC1D Grade 9 Academic Science Course Outline

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COURSE DESCRIPTION: 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.

TERM WORK WILL BE BASED ON THE OVERALL CURRICULUM EXPECTATIONS LISTED BELOW:

Chemistry: Atoms, Elements, and Compounds

- assess social, environmental, and economic impacts of the use of common elements and compounds, with reference to their physical and chemical properties;
- investigate, through inquiry, the physical and chemical properties of common elements and compounds:
- demonstrate an understanding of the properties of common elements and compounds, and of the organization of elements in the periodic table.

Physics: The Characteristics of Electricity

- assess some of the costs and benefits associated with the production of electrical energy from renewable and non- renewable sources, and analyze how electrical efficiencies and savings can be achieved, through both the design of technological devices and practices in the home;
- 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:
- demonstrate an understanding of the principles of static and current electricity.

Earth and Space Science: The Study of the Universe

- assess some of the costs, hazards, and benefits of space exploration and the contributions of Canadians to space research and technology;
- investigate the characteristics and properties of a variety of celestial objects visible from Earth in the night sky;
- 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.

Biology: Sustainable Ecosystems

- 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;
- investigate factors related to human activity that affect terrestrial and aquatic ecosystems, and explain how they affect the sustainability of these ecosystems;
- 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.

ASSESSMENT AND EVALUATION:

Term Work: 90% of Overall Mark

1) Knowledge and Understanding (20%) 2) Application (20%) 3) Communication (15%) 4) Thinking/ Inquiry (15%)

Culminating Tasks: 10% of Overall Mark

Culminating Task (10%) No Exam

Late and Missed Evaluations:

- Once an assignment has been marked and returned, further submissions will <u>not</u> be accepted and a grade of zero will be assigned.
- Students are responsible for notifying their teachers of absences <u>prior</u> to the date of a test or deadline. This includes but is not limited to: medical appointments and so on. Employment or extended family vacations are <u>not</u> valid reasons for missing an evaluation.
- If a student misses an evaluation for a legitimate reason, a <u>note</u> must be presented to the teacher otherwise the above penalties will be applied.

Please refer to the MCI Evaluation policy in your agenda for more information.

RESOURCES:

A variety of resources will be used throughout the course, including but not limited to the following:

Nelson Science Perspectives 9 – ISBN: 978-0-17-635519-7

CLASSROOM ROUTINES AND PROCEDURES:

- Regular attendance (virtual or in-person) is essential. If you are going to be away, you are responsible for catching up on missed work.
- Students who are learning remotely will attend class via ZOOM which is accessible through Brightspace.
- Attendance will be taken for all periods, including in-person and virtual classes.
- Students who are learning remotely must be logged into ZOOM at the appropriate time for attendance to be taken. Failure to be present on ZOOM is equivalent to being absent from class. If technical issues arise, parents are encouraged to inform the school office by telephone and the teacher by email.
- All work submitted must be your own. Submitting another person's work is considered plagiarism and may result in a mark of zero.
- Listening is an important part of class. Please listen to all instructions. Record important due dates and dates of assessments.
- Review course material regularly.
- No eating during class. Food is not permitted in any science classroom.
- Please refer to the Code of Conduct in your agenda.
- It is the responsibility of the student to arrange for extra help from the teacher if it is required.
- Please bring your TDSB issued Chromebook with you to every class.
- Students should also bring the following supplies:

Pens & Pencils

Eraser

3 ring binder & loose leaf paper

Scientific Calculator

Ruler

Protractor

Markers, Pencil Crayons

Due to COVID 19 protocols, sharing of items is discouraged