

Science Department
Grade 9 Academic Science SNC1D1 (1.0 credit)

Course Prerequisite: None

Textbook: Investigating Science 9

(replacement cost \$100)

Teachers: Mr. M. Robbins

Subject Head: Mr. D. Lanziner

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.

Course Units

In science students will demonstrate scientific investigation skills in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating) and, identify and describe careers related to the fields of science under study, and describe the contributions of scientists to those fields.

The following units of study will be covered:

- Biology: Sustainable Ecosystems
- Chemistry: Atoms, Elements, and Compounds
- Earth And Space Science: The Study of the Universe
- Physics: The Characteristics Of Electricity

Assessment & Evaluation

The student will be provided with numerous and varied opportunities to demonstrate achievement in all four categories of knowledge and skills - *Knowledge/Understanding*, *Thinking/Investigation*, *Communication*, and *Application* as indicated below ($\pm 5\%$):

Knowledge/Understanding	20 %
Thinking/Investigation	30 %
Application	10 %
Communication	10 %
Exam & Culminating Activities	30 %

Knowledge/Understanding

- Understanding concepts, facts and terms, relationship among concepts.
- Primarily assessed from tests and/or quizzes

Thinking/Investigation/Communication

- Design/performance of lab experiments/activities, recording, analysis and interpretation of experimental data, problem solving
- Effective communication using correct scientific terminology, symbols and units, following instructions for communication or written material
- May be assessed during performance labs, lab reports, assignments, test, quizzes, presentations, projects and journals

Application

- Connecting science, technology and the environment
- May be assessed using assignments, tests, quizzes

Culminating Activities

- Usually towards the end of a unit a large assignment/lab will be given which summarizes many key ideas of the unit

Exams

- All categories of assessment may be reflected on the examinations

Learning Skills

In addition students will be assessed on their learning skills: organization, initiative, teamwork, work habits, and working independently. Teachers will provide detailed information and tracking tools for assessing learning skills. They are NOT included in determining the final percentage grade.

Formative Assessment

You will be provided with multiple opportunities for formative assessment. This may include: classroom discussion, answering questions, homework checks and take-up. It is your responsibility to take advantage of these opportunities. While formative assessment does not count toward the course mark, such feedback is extremely valuable to achieve success.

Instructional Strategies

A variety of instructional strategies may be used in this course. They may include but are not limited to socratic notes, laboratory investigations, demonstrations, question & answer, cooperative learning (i.e., Placemats, Jigsaws, Debate, Oral Presentations), simulations, role-playing, technological literacy (internet research, power point presentations), as well as small & large group discussion.

Extra Help

Each teacher has his/her own time(s) at which extra help will be available. This will be communicated to you by your teacher early in the semester. It is essential that you prepare for extra help by reviewing course material and study guidelines regularly. Identify specific items that you do not understand or that need clarification. You must **not** come for extra help with the expectation that an entire lesson/unit will be re-taught.

Assignment Due Dates

The due date for each assignment will be established near the time that it is given. The length of time given will reflect the complexity of the assignment and to allow an appropriate timeframe for its completion. The due date will also be considered to be the final deadline.

According to school policy, failure to submit work by the stated deadline will result in work not being accepted for evaluation and a mark of zero will be assigned. Extenuating circumstances may warrant an alternative arrangement. In such a case, it is **your responsibility** to discuss this with your teacher in advance of the deadline. Where there are extenuating circumstances, the decision regarding an extended deadline or an alternative arrangement with the teacher will depend upon course programming. **Any assessment that is missed or not submitted on time due to truancy will not be accepted for evaluation. This also includes tests and quizzes. In the event that a test or quiz is missed due to illness, a phone call from a parent/guardian is required to the teacher on the day of the test, quiz or assignment due date which acknowledges that a test or quiz has been missed and indicates the reason.** It is expected that an evaluation will be written within two school days upon return to class at a time established by the teacher.

Expectations of Students:

Treat others with respect; Not interrupt the lesson by speaking out of turn; Behave in a mature fashion in class; Contribute to class activities and discussions, and take notes Follow the safety rules during laboratory activities. Attend and be on time for all classes. Bring to each class: pens and pencils, eraser, ruler, and calculator , science binder with lined paper, graph paper, and your textbook to every class unless otherwise told; Please ask for extra help as soon as difficulties arise. Do not wait!

Classroom Safety

Safety procedures must be followed at all times in the science classroom to ensure the well being of students and staff. Failure to follow teacher instructions (during laboratory work OR class time) will result in the removal of the student. A mark of zero may be assigned.

School Contact Information

Students may speak directly to the teacher in class (at an appropriate time) or at a time established by the teacher. Parents may contact the teacher by phoning the school at (905) 727-3131 and leaving a message on the teacher's voicemail. The voicemail extension for your teacher is;

Mr. Robbins ext. 477

Course Enhancement Costs

Students have the opportunity to purchase their own pair of safety goggles from the science department. The cost is \$8.00 (approx)

Additional Information:

The Ontario Curriculum Grade 9 Science, 2008 available at <http://www.edu.gov.on.ca/eng/curriculum/secondary/science.html>

Science Department – Course Outline [Sign off slip] Grade 9 Academic Science SNC1D1 - (1.0 credit)

I here by acknowledge that I have read, understand and will follow the policies stated on the Course Outline, and the Student Responsibly For Science Laboratory Safety Sheet.

Student Name (Please Print)

Parent Name (Please Print)

Student Signature

Parent Signature

Comments/Notes to Teacher: