



Grand River Collegiate Institute COURSE OUTLINE

For students and their families.

Course Name

Grade 10 Academic Science

Curriculum Document <http://www.edu.gov.on.ca/eng/curriculum/secondary/>

Course Code

SNC 2DI

Prerequisite

SNC 1DI

Teachers

Mr.Emrich, Mrs.Neaven,
Mr. Torre and Mrs. Young

Contact

519-576-5100 (ext.6019)

Textbook

McGraw-Hill ON Science 10

Course Description:

This course enables students to enhance their understanding of concepts in biology, chemistry, earth and space science, and physics, and of the interrelationships between science, technology, society, and the environment. Students are also given opportunities to further develop their scientific investigation skills. Students will plan and conduct investigations and develop their understanding of scientific theories related to the connections between cells and systems in animals and plants; chemical reactions; forces that affect climate and climate change; and the interaction of light and matter.

Essential Learnings/Expectatons/Skills - To be successful in this course you **must** be able to demonstrate **all** of the essential expectations as communicated by your teacher. These will be clearly communicated to you throughout the course.

Scientific Investigation Skills:

- Demonstrate scientific investigative skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating).
- Identify and describe careers related to the fields of science under study, and describe the contributions of scientists to those fields.

Chemistry:

- Analyse a variety of safety and environmental issues associated with chemical reactions, including the ways in which chemical reactions can be applied to address environmental issues.
- Investigate, through inquiry, the characteristics of chemical reactions.
- Demonstrate an understanding of the principles of chemical reactions, and various ways to represent them.

Biology:

- Analyse technologies related to systems biology, and analyze their societal and ethical implications.
- Investigate cell division, cell specialization, organs, and systems in animals and plants, using research and inquiry skills, including various laboratory techniques.
- Demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals and plants.

Physics (Optics):

- Evaluate the effectiveness of technological devices and procedures designed to make use of light, and assess their social benefit.
- Investigate the properties of light, and predict its behaviour, particularly with respect to reflection in plane and curved mirrors and refraction in converging lenses.
- Demonstrate an understanding of various characteristics and properties of light, particularly with respect to reflection in mirrors and reflection and refraction in lenses.

Earth and Space Science (Climate Change):

- Analyze some of the effects of climate change around the world, and assess the effectiveness of initiatives that attempt to address the issue of climate change.
- Investigate various natural and human factors that influence Earth's climate and climate change.
- Demonstrate an understanding of natural and human factors, including the greenhouse effect, that influence Earth's climate and contribute to climate change.

EVALUATION – Evidence of Learning**Formative Assessment:**

There will be many ongoing formative assessments throughout the course. Formative assessments serve as practice for students prior to being evaluated (summative assessment). The ongoing feedback helps students to recognize their strengths and weaknesses and provides information to the teacher regarding next steps for the student's learning. In the case where, due to extenuating circumstances, a student has been unable to complete a summative assessment, formative assessments may be used as additional evidence to support the teacher's professional judgment when determining a final grade.

Summative Assessment:

Summative assessment will occur near the end of the unit/instruction and demonstrates the student's knowledge for the purpose of evaluation and reporting. These assessments will be included in the mark shown on the student's report card.

The types of formative and summative assessments are outlined below:

Final Grade	
Term Work	
• Tests	35 %
• Lab Reports and Assignments	35 %
Final Written Exam – 2 Hour Exam	30 %

Term work

- Formal laboratory reports
- Quizzes
- Tests
- Projects
- Assignments
- Presentations

Final

- Final exam

Refer to the GRCI Web Site www.grc.wrdsb.ca for Assessment, Evaluation and Reporting Policies as well as Academic Honesty and Late Policies.

Procedures

Late and Missing Assignments: It is important for students to develop good personal management skills (such as time management and planning). These skills will be reflected in the **learning skills** area of the report card. It is expected that students will complete and submit all essential tasks as they are the opportunity for you to demonstrate your learning to your teacher.

Attendance: Attendance in classes is an important part of learning, and absences should be avoided. When a student is absent, a parent/guardian must call the school's attendance line on the date of absence, or provide a note explaining the absence for the student to submit the following day. Students are responsible for what they missed during their absence.

Cheating and Plagiarism: It is important for students to do their own best work. Most assignments for this class are done within the classroom, observed by the teacher, and this helps to minimize the chances of cheating and plagiarism. In the event that cheating or plagiarism occurs, the following consequences may be implemented, in consultation with administration, depending on the situation:

1. The student may be required to redo all or part of the assignment or assessment.
2. The student may be required to complete an alternate assignment or assessment.
3. The student's work may be treated as a missed assignment.

There may also be other consequences that are determined to be appropriate (e.g. detention, suspension, etc.) as per the school's progressive discipline process. Parents/guardians will be informed about the infraction and the consequences.

Please refer to the school website: <http://grc.wrdsb.ca/about/policies> for more details on these policies and other academic procedures.

Signatures

Please sign below indicating you have read and understand the requirements for successful completion of this course.

Student Name

Parent/Guardian Name

Student Signature

Parent/Guardian Signature

Date

Date

Daytime phone number

Evening phone number

Email address