SNC2D – Grade 10 Science
Course Profile & Evaluation

Course Description/Rationale/Overview

This course enables students to develop a deeper understanding of concepts in biology, chemistry, earth and space science, and physics; to develop further their skills in scientific inquiry; and to understand the interrelationships among science, technology, and the environment. 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, with particular focus on acid-base reactions; forces that affect climate and climate change; and the interaction of light and matter.

Prerequisite: Science, Grade 9, Academic

Class Requirements

Student Responsibility

Students must seek assistance from the teacher for all work missed due to absence and must make arrangements to complete missed work.

Course Requirements/Department Policies

Attendance requirement

Students are required to log in at least once per week on course activity. Students are expected to spend approximately 7 hours per week for both online and offline learning activities. Students are required to keep a Student Learning Log for each course documenting online and offline activities.

What is considered an Absence

1. Students failed to login in 2 consecutive weeks will be counted as one absence;
2. By mid-term, if students failed to complete 40% of course work;

When a student has 3 or more absences, the school will issue a warning letter.

Evaluation

Assignments, projects, quizzes, tests, culminating activity and final examination

Curriculum Strands

1. Biology: Tissues, Organs, and Systems of Living Things
2. Chemistry: Chemical Reactions
3. Earth and Space Science: Climate Change
4. Physics: Light and Geometric Optics

Achievement Categories

- Knowledge & Understanding 30%
- Thinking & Inquiry 30%
- Communication 20%
- Application 20%

Learning Skills

- Initiative
- Work Habits/Homework
- Organization
- Works Independently
- Teamwork

Evaluation		**FINAL MARK**	
Assignments	35 % (approximately)	Term Work:	70%
Quizzes and Tests	35 % (approximately)		
Culminating Activity	10%	Culminating Activity	10%
Final Evaluation	20 %	Summative Evaluation	20%

Resources

Textbook

Online Textbook: Science Perspectives 10 (Nelson 2009). Code used: MLXW 7325 (www.mynelson.com)

Supplementary Teaching Materials

Worksheets organized by teacher and other online resources.

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Course Outline

1. Biology: Tissues, Organs, and Systems of Living Things
By the end of this course, students will:
1. evaluate the importance of medical and other technological developments related to systems biology, and analyze their societal and ethical implications;
2. investigate cell division, cell specialization, organs, and systems in animals and plants using research and inquiry skills, including various laboratory techniques;
3. demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals and plants.

2. Chemistry: Chemical Reactions
By the end of this course, students will:
1. demonstrate an understanding of chemical reactions, the symbolic systems used to describe them, and the factors affecting their rates;
2. design and conduct investigations of chemical reactions, using standard scientific procedures, and communicate the results;
3. determine why knowledge of chemical reactions is important in developing consumer products and industrial processes and in addressing environmental concerns.

3. Earth and Space Science: Climate Change
By the end of this course, students will:
1. demonstrate an understanding of the factors affecting the fundamental processes of weather systems;
2. investigate and analyze trends in local and global weather conditions to forecast local and global weather patterns;
3. evaluate how technology has contributed to our understanding of the physical factors that affect the weather.

4. Physics: Light and Geometric Optics
By the end of this course, students will:
1. evaluate the effectiveness of technological devices and procedures designed to make use of light and assess their social benefits;
2. investigate, through inquiry, the properties of light, and predict its behavior, particularly with respect to reflection in plane and curved mirrors and refraction in converging lenses;
3. demonstrate an understanding of various characteristics and properties of light, particularly with respect to reflection in mirrors and reflection and refraction in lenses.