Science 9

Course Description

Level of Instruction: Intermediate

Curriculum Overview:

Grade 9 Science is a Pan-Canadian science course that aims to develop scientific literacy. Scientific literacy is an evolving combination of the science related attitudes, skills, and knowledge students need to develop inquiry, problem-solving, and decision-making abilities; to become lifelong learners; and to maintain a sense of wonder about the world around them.

Authorized Learning Resource:

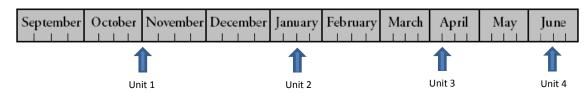
The Curriculum Guide may be accessed using the following link:

http://www.ed.gov.nl.ca/edu/k12/curriculum/guides/science/index.html English

http://www.ed.gov.nl.ca/edu/k12/french/immersion/sciences/index.html French Immersion

Discovering Science 9 (McGraw-Hill Ryerson, 2009) www.discoveringscience.ca

Estimated Completion



Course Sequence:

Unit 1: Space 22%

Core Lab 1: Strolling through the Solar System
Core Lab 2: Designing a Space Station
Core STSE 1

Unit 2: Atoms, Elements and Compounds 28%

Core Lab 3: *Physical and Chemical Properties*Core Lab 4: *Observing Changes in Matter*Core STSE 2

Unit 3: Electricity 30%

Core Lab 5: *Resistors and Ohm's Law*Core Lab 6: *Resistors in Series and Parallel*Core STSE 3

Unit 4: Reproduction 20%

Core Lab 7: Determining the Best Conditions for Yeast Reproduction Core Lab 8: Comparing Mitosis and Meiosis Core STSE 4

Assessment and Evaluation: (Eastern Region)

In the Eastern Region Assessment in this course is governed by the Assessment and Evaluation Policy of the Newfoundland and Labrador English School District - Eastern Region. This policy and associated regulations are located under "I: Instruction" at https://www.nlesd.ca/about/easternpolicies.jsp. This section may change as the new NLESD Assessment and Evaluation policy is updated.

Evaluation is the process of analysing, reflecting upon, and summarizing assessment information, and making judgments or decisions based upon the information gathered.

Unit Tests (4)	30%
Quizzes	10%
Performance Assessment	40%
Performance Assessment Project	10%
Scientific Literacy Assessment	10%

The evaluation of the course shall reflect the percent unit allocations.

Note: All evidence of learning shall be considered when determining a student's final grade. Averaging shall not be used as a sole indicator of a student's level of attainment of the course outcomes.



Assessment:

Assessment is intended to inform instruction, provide feedback to students, and meet the needs of diverse learners. It is used for the purposes of grading, certifying, and promoting students. All assessments should be outcome-based and designed to test students' basic knowledge of content, their understanding and ability to apply content, and ability to synthesize and problem solve. Assessments should provide equal opportunity for all students according to their abilities, needs, and interests. As a result, teachers make adaptations to accommodate the diverse range of learners in their classes.

Performance Assessment:

Performance assessments should emphasize projectbased learning and require students to show what they can do by using a wide variety of activities that permit

Lab Report Report **ORAL** WRITTEN Lecture Lesson Essay Poetry Play Story Questionnaire Rock Opera Scenario Talk show Debate Letter to the Editor Musical Composition Slogan/jingle **Book Report** Discussion Group Newspaper Article Experiment Choral Speech Science Fair Projec Invention Interview Puzzle Skit Diary Multi-media Web Page Seminar Proyotype Portfolio Games Song Demonstration Scrap Book Slide Show Poster Timelin Brochure Foldable Puppet Show Mobile Masks Costume Mural Photographs Comic Strip Model Art Work Spreadsheet VISUAL Diorama Display Weh

Source: K. O'Connor, The Mindful School: How to Grade for Learning (Skylight Publications, 1999)

students to have their learning styles addressed. Performance assessment should also include student self-assessment.

Rubrics are used to inform and measure learning during performance assessments. A rubric defines the expectations to achieve at a certain level. It also provides information about how well students performed an activity, and it provides a clear indication of what students need to accomplish in the future to better their performance.

Performance Assessment Project:

All students are required to do a major performance project of considerable size and scope where they demonstrate an understanding of science content, processes and skills. This could be an experimental project where students choose to apply their scientific knowledge and background to a specific, real-life situation in an effort to solve a problem. Projects could also consist of an investigation of content related to their grade level curriculum where students further investigate introduced concepts. Opportunity should be provided for students to present their project in a variety of ways.

Scientific Literacy Assessment:

This common assessment is given during the exam period in June. It will include a case study and data analysis.