

## New Westminster Online Learning School

### Science 9:

#### **Course Description**

Science 9 involves the study of the primary areas of science: biology, chemistry, physics and earth science. Students are encouraged to have an investigative approach to the learning of science. The online version of this course affords students the ability to work independently at the pace that best suits them while requiring careful time management and developing communication and thinking skills.

#### **Course Expectation**

Students are expected to complete the first assignment/project within 2 weeks of enrolling, to log in and make progress each week, and to finish the course within 5-months. They are expected to be in communication with their teacher when they have questions and if they need additional time. Students are expected to submit their own work.

#### **Enduring Understanding/Big Ideas**

Students will focus on:

- Cells are derived from cells.
- The electron arrangement of atoms impacts their chemical nature.
- Electric current is the flow of electric charge.
- The biosphere, geosphere, hydrosphere, and atmosphere are interconnected, as matter cycles and energy flows through them.

#### **Specific Learning Outcomes**

Curriculum details can be found at:

<https://curriculum.gov.bc.ca/curriculum/science/9/core>

### Course Content

Module 1: Biology	How and why do cells divide?
Module 2: Chemistry	How does the electron arrangement of atoms affect their chemical nature?
Module 3: Physics	Is electricity the flowing of electrons?
Module 4: Earth Science	How does matter cycle and energy flow through the four interconnected spheres?

### Student Learning Activities and Strategies

All materials, lessons, assignments, and assessments are online and use a combination of text, short videos, interactive animations, links to websites, and practice questions and exercises to help students understand the concepts.

### Assessment

There are module quizzes and tests that are written online. Students will submit their module assignments electronically via a drop box in the course. Each assignment will also include specific criteria for how students will be marked. There is NO midterm and NO final exam. Students may only submit one assignment/assessment per day. All assignments, quizzes and tests may be submitted from home. Note: While, in general, tests can be written at home, please note that at any time during this course, students may be required to come to a specific school location to write a test.

### Evaluation

Learning Activity	Percentage of Final Mark
Various review quizzes	5% for each module, for a total of 20%
4 Module Assignments	5% each for a total of 20%
4 Module Quizzes	5% each for a total of 20%
4 Module Tests	10% each for a total of 40%
Total	100%

### Resources

All materials are online, so access to a reliable high-speed internet is essential, and students use a laptop, desktop, or Chromebook. No textbook or workbook is required.