



## Science 10

### Course Outline

#### Course Overview:

Science 10 introduces main topics from Biology, Chemistry, Physics and Earth Science. This will form the basis for further studies in future grades and provide students with knowledge to find areas of interest.

#### Course Content and Suggested Timelines:

Science 10 has five main units of study:

- **Scientific Method (1 week)**
- **Biology: DNA, Genetics and Natural Selection (4 weeks)**
  - You will learn about
    - DNA structure and function
    - patterns of inheritance
    - mutations
    - natural selection and artificial selection
    - Applied genetics and ethical considerations
- **Chemical Reactions (6 weeks)**
  - You will learn about
    - Naming chemical formulas
    - Writing chemical formulas
    - Balancing chemical reactions
    - Exothermic and endothermic reactions
    - Other types of chemical reactions
    - Acid, Bases and Salts
- **Physics: Law of Conservation of Energy (4 weeks)**
  - You will learn about
    - Potential and Kinetic energy
    - Transformation of energy
    - Local and global impacts of energy transformations from technologies
    - Conservation of energy

- **Earth Science (3 weeks)**
  - You will learn about
    - Objects in our Universe
    - The formation of our Universe
    - The Sun and our Solar System
    - Stars
    - Astronomical data and collection methods

### **Course Materials:**

All information needed is built into this course in the form of readings, video, activities.

#### **Data booklet:**

You will need to use this data booklet all the time! Print it off and keep it with your Science 10 stuff. The more times you use it the more familiar it will become.

#### **Other resources:**

- You will require a scientific calculator
- A printer and scanner (or a digital camera)
- A headset for use with V-class

Here is a link to the current science 10 competencies: [Science 10 curriculum](#)

### **Assessment Information:**

For the Science 10 course grade, you will be evaluated in the following areas:

Introductory Unit	10% of course grade
Show Your Learning	20% of course grade
Quizzes	10% of course grade
Unit Tests	20% of course grade
Projects	20% of course grade
Core Competencies and Reflections	20% of course grade

- **Introductory Unit (10%)**

This unit consists of 5 assignments found at the beginning of Science 10. Students will become familiar with the integrity policy, course resources and complete three exercises. The exercises cover Scientific Method and graphing which will be used

throughout the course. Once these have been completed and assessed, the remainder of the course will become available.

- **Show Your Learning: (20%)**

There will be one Show Your Learning assignment for each section of each unit of the course. These short assignments are designed to give you immediate feedback on material you have just learned.

- **Quizzes (10%)**

After several sections, you will be given a brief quiz on the topics learned. You will be given two attempts for each quiz, and the highest grade will be taken.

- **Unit Tests: (20%)**

There are four tests to be completed, one at the end of each unit. Please note that the unit tests in Science 10 are "**closed book**" tests, which means that you are not permitted to use any reference material/resources to help answer the test questions, **except for the "data booklet" and a non-graphing calculator** if needed. The test will remain hidden until you have completed all of the assessments in the unit.

- **Projects: (20%)**

For each unit, you will need to complete **one lab or project** that is related to the unit (for a total of 4 labs in the course).

### **Supervised and Invigilated Exams:**

The unit 2 and unit 4 must be invigilated by an EBUS approved supervisor, Units 1 and 3 tests can be supervised by a parent / guardian.

Tests will be written at home as an online video invigilated test with a live **EBUS approved invigilator**.

Contact your teacher about booking an exam with an online invigilator. At least a week's notice is required to complete the booking.

Please note:

The password will be managed by the invigilator. It will be a closed book test. No reference materials (electronic or paper) will be permitted. You will log into the course and go directly to the test. No other tabs/window will be opened during this time. For more information on invigilated tests, please refer to [EBUS' Assessment and Student Integrity Policy](#).

## **When students are not meeting the learning outcomes/ falling behind:**

When students fall behind the expected pace or plan, they will be contacted via email or phone and if there is no improvement or response, parents will also be contacted. If deemed necessary, contact with the student's home school may also occur to help determine a solution.

Students are expected to let the course teacher know when they are struggling with course content. In response, the course teacher will provide appropriate help or strategies to support learning. The course teacher will also provide feedback on course work to support learning and help students improve. Parents will be made aware if their child is actively working but struggling to meet the learning outcomes of the course.

Students falling behind in a manner where it does not appear that they will complete the course within a year will be sent reminder emails. Without a response or renewed efforts in the course, the student may be assigned an F or withdrawn. Should they begin actively working in the course, the student may be given an alternate completion date.

### **Expectations:**

- Adhere to the EBUS Academic Integrity Policy
- Contact your teacher when help is needed
- Review feedback from assignments and tests, where applicable
- Work to complete the course in a timely manner
- Communicate respectfully
- Review weekly progress reports

### **Reporting to Parents:**

There are 4 term report cards that can be downloaded from the student dashboard. A notice will go out when these report cards are available.

Every 1 week that EBUS is in session the teacher will send out a progress report showing the student's progress

### **Contacting Your Teacher:**

Your teacher will be available from 9 am to 3:30 pm during regular school hours. If you are having trouble with any concepts, please contact your teacher right away!

If you are not available during these hours contact your teacher to arrange a time outside of this.

Teacher help is communicated through email, over the phone, v-class (speaking and looking at the same interactive computer screen).

Please contact your teacher:

Lisa Zukewich [lzukewich@sd91.bc.ca](mailto:lzukewich@sd91.bc.ca)

Stephanie Sedgwick [ssedgwick@sd91.bc.ca](mailto:ssedgwick@sd91.bc.ca)