



Science 10  
Course Outline



Course Objectives & Content: Science 10 addresses a wide variety of learning outcomes across four main topics, as described in the B.C. Ministry of Education's new curriculum: (<https://curriculum.gov.bc.ca/curriculum/science/10/>)

**BIOLOGY:** Genetics: DNA is the basis for the diversity of living things.

- DNA structure and function
- Patterns of inheritance
- Mechanisms for the diversity of life:
- mutation and its impact on evolution
- natural selection and artificial selection

**CHEMISTRY:** Energy change is required as atoms rearrange in chemical processes.

- Rearrangement of atoms in chemical reactions
- Acid-base chemistry
- Law of conservation of mass
- Energy change during chemical reactions
- Practical applications and implications of chemical processes, including First Peoples knowledge

**PHYSICS:** Energy. Energy is conserved, and its transformation can affect living things and the environment.

- Nuclear energy and radiation
- Law of conservation of energy
- Potential and kinetic energy

- Transformation of energy
- Local and global impacts of energy transformations from technologies

**ASTRONOMY:** The formation of the universe can be explained by the big bang theory.

- formation of the universe - big bang theory
- components of the universe over time
- astronomical data and collection methods

**Core Competencies:** The core competencies along with literacy and numeracy foundations and essential content and concepts are at the centre of the redesign of curriculum and assessment. Core competencies are sets of intellectual, personal, and social and emotional proficiencies that all students need to develop in order to engage in deep learning and life-long learning. Through provincial consultation, three core competencies were identified.

**Communication:** The communication competency encompasses the set of abilities that students use to impart and exchange information, experiences and ideas, to explore the world around them, and to understand and effectively engage in the use of digital media.

**Thinking:** The thinking competency encompasses the knowledge, skills and processes we associate with intellectual development. It is through their competency as thinkers that students take subject-specific concepts and content and transform them into a new understanding. Thinking competence includes specific thinking skills as well as habits of mind, and metacognitive awareness.

**Personal and Social:** Personal and social competency is the set of abilities that relate to students' identity in the world, both as individuals and as members of their community and society. Personal and social competency encompasses the abilities students need to thrive as individuals, to understand and care about themselves and others, and to find and achieve their purposes in the world.

**Textbook:** BC Science Probe 10

Textbook online link: <http://missharvey.weebly.com/science-probe-10.html>

**Evaluation:**

Assignments / Projects	70%
Tests/Quizzes	30%

The final mark will be a cumulative mark with no final exam.

**Attendance:** When absent it is the student's responsibility to make up the missed work.

**To find out what was missed:**

1. Contact a friend that is in your class
2. See Google classroom  
(<https://classroom.google.com/c/MTU0MDAwMzE5Mjky?cjc=lfthj2f>)
3. See me at break/lunch the next day you are back

**Assignments:** All assignments are to be handed in on the Due Date. Any late assignments will be accepted until the return of the marked assignments. After this, alternate assignments may be given.

**Classroom Expectations:**

- Come prepared to class (binder, paper, pencil, eraser, calculator, textbook).
- Be on time, IN YOUR DESK when the bell rings
- USE of ELECTRONIC DEVICES will be Teacher Choice.
- No food in the Science room. Drinks are allowed but no sharing.
- Contribute to a positive learning environment by respecting classmates and allowing the teacher to teach.
- Take responsibility for YOUR learning.

