

Teacher: F. Dhanani, Room 311

There are two textbooks that we will be using as resources in this course. The **BC Science 10** textbook is our primary resource and a copy will be assigned to each student for use through the semester. The **BC Science Connections 10** textbook is our secondary resource and will be available in the classroom as a reference.

Textbooks: **(i) BC Science 10** (McGraw-Hill Ryerson, 2008)
 (ii) BC Science Connections 10 (Nelson Education, 2018)

**** Note:** Topics may not necessarily be covered in the order indicated.

A. Processes of Science

(i) Pages 550-590 (ii) Pages 379-411

1. Safety
2. Science and You
3. Scientific Method

B. Motion

(i) Unit 3: Chapters 8 and 9 (ii) not in text

1. Average velocity is the rate of change of position.
2. Acceleration is the rate of change of velocity.

C. Energy is conserved and its transformation can affect living things and the environment

(i) not in text (ii) Unit 3: Topics 3.1 to 3.4

1. Where does energy come from and what happens to it?
2. How does energy in the form of radiation affect living things?
3. What is the difference between potential energy and kinetic energy?
4. How do energy transformations affect the environment?

D. Chemical processes require energy change as atoms are rearranged

(i) Unit 2: Chapters 4-6 (ii) Unit 2: Topics 2.1 to 2.4

1. In what ways do atoms rearrange during reactions?
2. How is energy involved in chemical processes?
3. What chemical reactions affect your life?
4. How do ionic bonding and covalent bonding differ?

E. Nuclear energy and radiation (*Science 10 Enriched only*)

(i) Unit 2: Chapter 7 (ii) Unit 3: Topic 3.2

1. Atomic theory, isotopes and radioactive decay
2. The atomic theory explains radioactivity
3. Half-life
4. Nuclear reactions

F. Genes are the foundation for the diversity of living things

(i) not in text (ii) Unit 1: Topics 1.1 to 1.4

1. How does DNA result in biodiversity?
2. How is the structure of DNA related to the function of DNA?
3. Mendelian Genetics – How are traits passed along to the next generation?
4. What is the difference between complete dominance, incomplete dominance, and co-dominance?
5. What are sex-linked traits?
6. What is Genetic Engineering?

G. The formation of the universe can be explained by the big bang theory

(i) not in text (ii) Unit 4: Topics 4.1 to 4.4

1. What evidence supports the big bang theory?
2. How could you model the formation of the universe?
3. How has the advancement of technology deepened our understanding of the universe?