



**Course:** Science 10

**Course Description:** Students will know:

- Question and predict
- Plan and conduct experiments
- Process and analyze data and information
- Evaluate and modify experimental designs
- Apply and innovate using knowledge connected to the Science 10 curriculum
- Communicate ideas and understanding

**Big Ideas:** By the end of this course, students will understand:

DNA is the basis for the diversity of living things.

Energy change is required as atoms rearrange in chemical processes.

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

**Core Competencies:**

**Communication**

Students communicate by receiving and presenting information. They inquire into topics of interest and topics related to their studies. They acquire information from a variety of sources, including people, print materials, and media; this may involve listening, viewing, or reading, and requires understanding of how to interpret information. They present information for many purposes and audiences, and their presentations often feature media and technology.

**Thinking**

Students may generate creative ideas through free play, engagement with other's ideas, or consideration of a problem or constraint, and/or because of their interests and passions.

**Personal & Social**

Students who are personally aware and responsible take ownership of their choices and actions. They set goals, monitor progress, and understand their emotions, using that understanding to regulate actions and reactions. They are aware that learning involves patience and time. They can persevere in difficult situations, and to understand how their actions affect themselves and others.

**Resources:**

BC Science 10 Textbook and Workbook by McGraw-Hill Ryerson

**Assessment:**

Formative (30%)

- Quizzes
- Homework
- Models
- Labs
- Projects
- Posters



Summative: (70%)

- Unit Test
- Midterm
- Final

*With respects to the First People's Principles of Learning, students may be alternatively assessed in ways that people can display knowledge and subject mastery. The alternative assessment can be storytelling, art or other expressions of self, knowing and learning.*

**First Peoples Principles of Learning**

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)

Learning involves patience and time.

**Expectations:** Attendance in the classroom is mandatory. Students are expected to use their electronics responsibly, speak English, and participate in daily activities. Students will take an active role by discussing, doing work, working in partners or groups, and taking notes. Students are responsible for any missed assignments.

1 – Biology  Week 1-4	DNA Structure and Function	<ul style="list-style-type: none"> <li>• Cell Brochure</li> <li>• Genetics Bingo</li> <li>• DNA Model</li> <li>• Quizzes</li> <li>• Natural Selection Bird Lab</li> <li>• Unit Test</li> </ul>
	Patterns of Inheritance	
	Mutations	
	Natural and Artificial Selection	
	Applied Genetics and Ethical Considerations	
2 – Chemistry  Week 5-8	Rearrangement of atoms in chemical reactions	<ul style="list-style-type: none"> <li>• Periodic Table Work Package</li> <li>• Conservation of Mass Lab</li> <li>• Quizzes</li> <li>• Element Poster</li> <li>• Chemical Reaction Poster</li> <li>• Midterm</li> <li>• Unit Test</li> </ul>
	Acid-base chemistry	
	Law of Conservation of Mass	
	Energy Change during Chemical Reactions	
3 – Physics  Week 9-11	Law of Conservation of Energy	<ul style="list-style-type: none"> <li>• Science 10 Workbook</li> <li>• Velocity Lab</li> <li>• Quizzes</li> <li>• Unit Test</li> </ul>
	Transformation of Potential and Kinetic Energy	
	Local and Global Impacts of Energy Transformations	
Review Week 12		<ul style="list-style-type: none"> <li>• Group work</li> <li>• Homework</li> <li>• Self-Reflections</li> </ul>