

# Science 10

**Learning Outcomes:** The activities in this course are based on the core competencies and curricular competencies as provided by the Ministry of Education of BC and will introduce students to four key ideas: 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, the formation of the universe can be explained by the big bang theory.

View the complete Ministry of Education learning outcomes for this course: [Science 10](#)

**Resources:** Most activities can be completed with materials found at home. In some cases, it may be necessary to make arrangements with a Science teacher (in a regular school setting) to complete certain tasks. All other resources are provided within the course. Students will need good access to the Internet and will be required to use online tools.

**Exams:** All exams require a password and are to be invigilated by a teacher at your school or an approved testing center. Exams may be rewritten if needed. Exams may cause anxiety for some students. See your teacher for study skills if necessary. Quizzes may be rewritten, so use them as practice or review.

**Communication:** Assignments are submitted directly through your course. Constant communication with your teacher is key to success in a DL course. Phone or email or message your teacher for help whenever necessary.

**Goal Setting:** This course is self-paced and self-directed. Students should plan on working 5-6 hours a week on this course. It is highly recommended that the student creates a calendar of monthly, weekly and even daily goals. Contact your teacher if help is needed doing this.

**Learning Guides/Projects:** Print out unit learning guide, complete and upload in pdf form. Once mastered, select and complete a unit project, then upload in pdf form. Please ensure these are neat and organized. Learning guides must be submitted before writing unit exams.

**Section 1 - Biology:** DNA and its role in inheritance, evolution and diversity (including ethical considerations).

**Section 2 - Chemistry:** Atoms and molecules react to create new arrangements (chemical reactions) without the loss of any individual atoms (Law of Conservation of Mass), while also undergoing energy changes in the rearrangement.

**Section 3 - Physics:** Energy and energy transformations play a key role in the universe, impacting everything from small simple transformations to those which impact the entire universe.

**Section 4 - Earth Science:** Gaining insight into astronomical changes over time and our increasing ability to collect information about the universe.

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## **Assessment**

### **Midterm and Final Exam**

\*all supervised exams must be written at your school or an approved testing center.

This 4-credit course will be broken down as follows:

**Learning Guides - 10%** of the overall grade.

**Quizzes – 10%** of the overall grade.

**Projects - 30%** of the overall grade.

**Unit Exams - 30%** of the overall grade.

**Final Exam - 20%** of the overall grade.