Welcome to Science 10

This year we will be exploring the following big ideas:

* **Chemistry** (Criterion A, B, C) - Energy change is required as atoms rearrange in chemical processes.
* **Biology** (Criterion A & D) - DNA is the basis for the diversity of living things.
* **Physics** (Criterion B, C, D) - Energy is conserved, and its transformation can affect living things and the environment.
* **Astronomy** (Criterion D) - The formation of the universe can be explained by the big bang theory.

**ASSESSMENTS:**

We will be following the MYP criteria to assess your learning. Each criterion will be assessed at least twice this quarter in formal summative assessments. In addition to the summative pieces, there will be formative pieces that can be used to support your grade.

**Criterion A – Knowing and Understanding** (Chemistry Test, Genetics Test)

1. explain scientific knowledge
2. apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations
3. analyse and evaluate information to make scientifically supported judgments.

**Criterion B – Inquiring and Designing** (Chemistry Design Lab, Physics Design Lab)

1. explain a problem or question to be tested by a scientific investigation
2. formulate a testable hypothesis and explain it using scientific reasoning
3. explain how to manipulate the variables, and explain how data will be collected
4. design scientific investigations.

**Criterion C – Processing and Evaluating** (Chemistry Design Lab, Physics Design Lab)

1. present collected and transformed data
2. interpret data and explain results using scientific reasoning
3. evaluate the validity of a hypothesis based on the outcome of the scientific investigation
4. evaluate the validity of the method
5. explain improvements or extensions to the method.

**Criterion D – Reflecting on the Impacts of Science** (Genetic Engineering Project, Impacts of Energy, Space Exploration Project)

1. explain the ways in which science is applied and used to address a specific problem or issue
2. discuss and evaluate the various implications of the use of science and its application in solving a specific problem or issue
3. apply scientific language effectively
4. document the work of others and sources of information used.

**Expectations:**

You will be responsible for keeping your work organized and ensuring that assignments are completed and handed in on time. Completing assignments thoroughly is important so that you can clearly demonstrate what you know and showcase the skills you are developing. Students are encouraged to attend during blended learning time to catch up on assignments and get additional help with the science concepts.



**Absences:**

In a semester system each missed class is equivalent to a 2 days of missed classes in a linear system. I want to stress that if you are feeling unwell you should not attend classes. I will do my best to keep teams up-to-date so that if you are staying home due to illness/isolation you will be able to get the important information so that you don’t fall behind. You are also welcome to join the class via a daily teams call that will be available for absentee students. If you are away, YOU are responsible to seek out help on what you have missed in class.

**Here are a few tips to help you be successful:**

* Be an ***active learner***
* Stay off your phones – social media is a huge distraction, mute your notifications
* Review your notes/assignments and take note of concepts or ideas you do not understand
* See me during blended learning time
* Be willing to take risks as a learner, and learn from your mistakes
* Find ways to relate course material with your own passions
* The online resources below are just a couple or resources that you can use:
	+ Khanacademy.org
	+ Youtube.com

Technology is extremely useful in science courses and can help us understand concepts in different ways, unfortunately, technology can also be distracting to you and others around you. Cellphones and other devices should be kept out of sight unless otherwise directed.

**Academic Honesty:**

All students are expected to adhere to standards of academic integrity, including plagiarism and cheating. All assignments/projects must be completed in your own words with sources referenced in the bibliography. All work handed in must be completed by you.

**Communication and Submission of Assignments**



We will be using Microsoft Teams to communicate and submit major assignments.

* Please be familiar in how to submit assignments on the app
* Please be vigilant in checking the messages for any announcements