

SCIENCE 10 COURSE OUTLINE

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Welcome to Science 10. This course is an exploration of general science and is a building block for all future science classes. In this class we will explore climate and ecosystems, chemical reactions, and the physics of force and motion. Students will learn about how the climate and ecosystems function, how humans impact these systems, various chemical reactions and their importance, and how force and motion impact our everyday life.

Evaluation	
Unit 1 – Climate and Ecosystem Dynamics.....	20%
Unit 2 – Chemical Reactions.....	30%
Unit 3 – Force and Motion in Our World.....	20%
Career Exploration.....	5%
Final Assessment.....	25%

A student's grade in a unit could be based on multiple assessments, a single exam, or a project.

It is very important to be in class on time, to be focused, and to complete your work.

SCIENCE 10 COURSE OUTCOMES:

Unit 1 – Climate and Ecosystem Dynamics (20%)

This unit will give students an understanding of the factors, both biotic and abiotic that have an impact on the climate and ecosystems. Students will understand the function of ecosystems and climates both in ideal function and in disrupted function.

- CD1 – Assess the implications of human actions on the local and global climate and the sustainability of ecosystems.
- CD2 – Investigate factors that influence Earth's climate system, including the role of the natural greenhouse effect.
- CD3 – Examine biodiversity through the analysis of interactions among populations within communities.
- CD4 – Investigate the role of feedback mechanisms in biogeochemical cycles and in maintaining stability in ecosystems.

Unit 2 – Chemical Reactions (30%)

Students in this unit will gain an appreciation for the wide use of chemistry in our everyday lives. Students will gain the tools to understand the elements and ways in which the elements can be combined and reacted.

- CR1 – Explore the properties of chemical reactions, including the role of energy changes, and applications of acids and bases.
- CR2 – Name and write formulas for common ionic and molecular chemical compounds, including acids and bases.
- CR3 – Represent chemical reactions and conservation of mass symbolically using models, word and skeleton equations, and balanced chemical equations.
- CR4 – Investigate the rates of chemical reactions, including factors that affect the rate.

Unit 3 – Force and Motion in Our World (20%)

In this unit students will explore motion and the technologies that we have created to use the laws regarding motion and acceleration.

- FM1 – Explore the development of motion-related technologies and their impacts on self and society.
- FM2 – Investigate and represent the motion of objects that travel at a constant speed in a straight line.
- FM3 – Investigate and represent the motion of objects that undergo acceleration.
- FM4 – Explore the relationship between force and motion for objects moving in one and two dimensions.

Classroom and Assessment Expectations:

1. Homework, assignments, quizzes, and exam expectations

Homework

- Time will be provided in class to work on most question sets. Any work remaining is expected to be finished for the following period or the date set for the assignment.

Assignments

- Some larger projects will be assigned and graded in some units. Due dates and expectations for these graded assignments will be clearly provided at the time they are assigned.

Quizzes

- Quizzes will sometimes be used to check student understanding and inform future instruction.

Unit exams

- Graded unit exams may be used.

2. Late work

Late Assignments

- All assignments must be handed in if you want to receive a mark. Late assignments will still be accepted up to two weeks after the assigned due date, the assignment will be graded as NHI (not handed in as a *place-holder* grade). After two weeks the NHI will become permanent.
- Due-date extensions will be granted at the discretion of the teacher, on a case-by-case basis. Please be sure to have this conversation before an assignment is due.
- Students who do not submit work on the assigned date will be expected to be in class over the noon hour to finish.

3. Absences

If you know that you are going to be absent, please see about getting the assignments and notes before you leave. If you are absent due to sudden illness or emergency, the materials used in class will be made available on the class Weebly. Arrangements should be made to make up exams or quizzes missed due to excused absences immediately upon returning to school.

SCIENCE 10 WEEBLY: <http://mrbrandteducation.weebly.com/>

There is a class Weebly site available (See the link above). Materials used in class will be made available on the website for use in completing assignments and in case of missed assignments or classes.

WARMAN HIGH SCHOOL CELL PHONE POLICY

Warman High School policy allows students to have cell phones. Students will be allowed to use their cell phones in the hallways and commons area. Classroom use is only as directed/approved by their teacher. Other electronic devices (MP3, Laptop, etc.) must be approved by the classroom teacher.