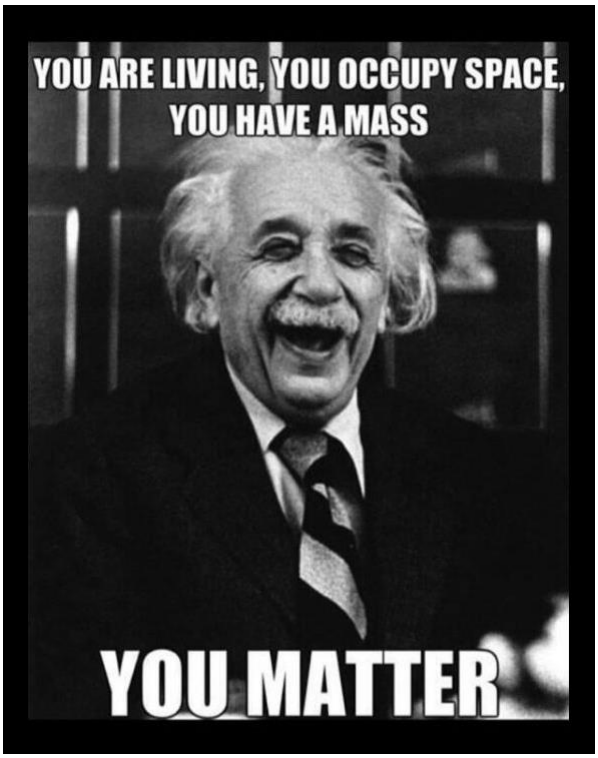
Science 10 - Course Outline
Mr. Phelps
Fairview High School 2022-2023
Room #118 Chem Lab

Course Overview for Science 10 (5 credits)

Recommendation for Success – 65% in Science 9

The science curriculum has four foundations that make up its structure. Students will learn about science and its associated technologies. They will also seek to understand how science and technology can impact the world (society) that we live in. Students will seek knowledge in four units of study throughout this course, those units are described in the scope and sequence section below. Students will also demonstrate skills that allow them to move through the inquiry process and that allow them to solve problems. Finally, students will acquire knowledge and apply it in a manner that is good for themselves, the people around them, and also the environment.



Success Plan

Science 10 is an exciting course that gives you an opportunity to explore many ideas about how science is involved in the day-to-day world around you. It serves as an introduction to four major disciplines of science and prepares you for 20-level and 30-level science courses. Your ability to be successful in this course is highly dependent on the following things:

·**Regular attendance** - To be successful in Science 10, the student must be attending classes and completing the work associated with learning the concepts and skills of the course. The student is responsible for getting notes and doing the work that was assigned if they are absent/late. If the student knows that they will be away, please notify the teacher so the student can pick up their work so they do not fall behind.

·**Arrive on time/Be prepared -** It is expected that you are in your desk ready to start class when the bell goes. Bring your book, pencil/pen, and calculator to class every day. If you are unable to avoid being late, please enter the classroom with a minimum of disruption. Keep all notes, assignments, vocabulary and quizzes in a binder.

·**Work Habits -** It is expected that the students use their class time to the best of their abilities for the whole period every class. I expect everyone to be listening when I am providing instruction. Please raise your hand and ask questions at any time during the class. Respectful behaviour is a necessity to all members of the class and shall be reciprocated.

·**Assignments -** Homework assignments are due at the beginning of each class. It is the student's responsibility to make up for any work missed during an absence. If an exam or quiz is missed due to an absence, the student must write the exam the day they return to school.

·**Attitude –** A positive attitude will greatly enhance your experience in this course. Come to class with a smile on your face and engage yourself in the material. Complete all assigned work on time and make things easy for yourself.

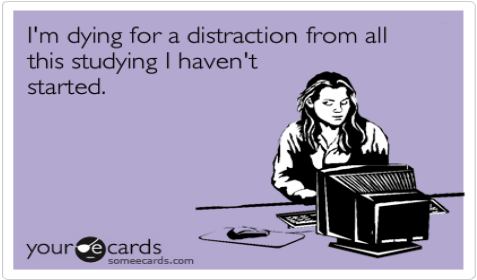
·**Late Assignments -** Late homework assignments will be accepted until given a designated cut-off point. Late work will result in getting behind so students are strongly encouraged to complete work on time. If you are absent and unable to hand in the homework, you will be expected to hand it in immediately upon your return.

- **Food/Drink** – Water bottles only please. No food is not allowed in this work space.

- **Digital devices**

Handheld devices are part of our day-to-day lives. They can play an important role in a classroom by acting as a learning resource for students. They can also be a large distraction from the learning process. If you require a digital device during the lesson, your teacher will inform you. If you bring a digital device to class, it should remain in your pocket during instructional times. If you wish to listen to music during independent work time, this is usually not an issue. During the times when we are using your digital device in class to help with a learning objective, students should use proper classroom etiquette:

- Ensure you have your device muted.
- Do not answer phone calls in class.
- Listen to the teacher; he should have your full attention during the lesson.
  - This means: put your device in your pocket or on the corner of your desk, face down, during instruction.
- Focus on your course work, avoid distractions.



- If your teacher asks you to put away your device, put it away. Don't ruin the opportunity for everyone.
- Use of electronic devices by any person must comply with the PRSDnet Acceptable Use Policy and respect the rights and privacy of students and school personnel.
- You may **not** use your digital device as a calculator on tests. You **must** have a standalone calculator in this course.

***If device use becomes a concern to the teacher or other members of the class, this digital device classroom policy can change. #inthebucket

Scope and Sequence

Unit	Pages	Timeline	Topics
Unit A: Energy and Matter in Chemical Change (Chemistry)	2-121	Aug. 30th – Oct. 18th (31 days)	-chemical changes involve energy and transformation of matter. - examine the underlying structure of matter and the basic chemical species - the difference between ionic and molecular compounds - the importance of a classification scheme and use it to identify chemicals - classify and name compounds as well as write balanced chemical equations - the law of conservation of mass and understand how it applies to the mole concept
Unit B: Energy Flow in Technological Systems (Physics)	122- 237	Oct. 19th–Nov. 18th (21 days)	- scalars and vectors - displacement, distance, velocity and speed - the first and second laws of thermodynamics - mechanical energy conversions and transfers - use the laws to develop more efficient energy conversion devices - history of technology and science working together
Unit C: Cycling Matter in Living Systems (Biology)	238- 337	Nov. 21st– Dec. 22nd (23 days)	- the cell is the basic unit of life - the functions of each organelle within the cell - differentiate between plant and animal cells - identify the importance of the cell theory and other technologies for the advancement of life sciences
Unit D: Energy Flow in Global Systems (Ecology)	338- 439	January 9th – January 20th (10 days)	- the importance of the sun which allows for life on earth and drives all geochemical cycles as well as the global climate system - discuss issues relating to changing climate
Review and Final Exam	**N/A**	**TBA (Use PULSE time to review)**	

Teaching Methodology

A variety of teaching methods will be used in this class. Direct lecture, discussion, laboratory tasks, presentations, and peer-to-peer cooperative teaching are some of the ways you will learn.

Assessment

The purpose of assessment is to measure a student's competency with respect to the program of studies. A variety of sources will be used to assess each student. These sources may include: observations, assignments, quizzes, tests, projects, reports, reflections, student products, and conversations. Assignments, quizzes, labs and unit tests will be recorded and a cumulative mark will be calculated at the end of the unit. Missing assignments will be recorded as a zero until arrangements have been made with Mr. Phelps to complete the work.

Category	Units A-D	Final Exam
Assignments, Projects, Labs & Quizzes	40%	
Exams	60%	
Course Weighting	70%	30%

Resources:

Textbook: Science 10: Sandner & Lacy; Addison Wesley, 2004

Students can acquire a textbook from the library. They will be required to care for their textbook so that it can be used in subsequent years. Each new textbook costs approximately $100. This cost of the replacement of texts can be passed on to students who handle this resource inappropriately.

You also need:

- One large binder with dividers for each unit of the course
- Loose-leaf paper
- Pencils and eraser
- Blue or black pens
- Ruler (short ruler is fine)
- Scientific calculator.
    - Phones cannot be used during exam settings. Please have a standalone calculator for use in class.

Google Classroom: Science 10 Class code = gwqyh37

- This site will host information like your course outline, a digital copy of your textbook, announcements, assignments, keys, and study resources.

Communication: PowerSchool and Remind

The online marks program "**PowerSchool**" is an online portal for teachers to communicate with students and parents about schedules, attendance, and grades. Attendance is updated daily and marks will be updated about every two weeks depending on the number of assessments done during that time.

You and your parents can access this information by visiting https://prsd.powerschool.com/public/ or by going to our school's website www.fairviewhigh.ca.

A PowerSchool app called "**PowerSchool Mobile**" is available on the Apple and Samsung app stores. Use ***district code QHWZ*** when signing up.

Remind is a useful tool to help "Remind" you about important upcoming dates or snippets of information relating to the course. Mr. Phelps will use this App on occasion throughout the course. To join go to: https://www.remind.com/join/2ca7fch

PULSE

Friday PULSE, "People Using Learning Supports Every day," is a flexible time for you to work on school work. If you are caught up on that work, you are welcome to use that time as you see fit in order to support your education.

If you are behind on your course work, PULSE is no longer your flexible time. It is time to be working to get caught up on your work.

Stay caught up, use your PULSE time productively, and use the many resources you have at your disposal to find success in all of your courses.

Help Sessions - Extra help is available in PULSE, during lunch, and after school by appointment. If you wish to contact me outside of school hours, I can usually be contacted by email at phelpsd@prsd.ab.ca