GRIMSHAW PUBLIC SCHOOL

"GPS: The Right Direction"

Science 14/24 Course Outline

2023-2024

Teacher: Mrs Seerey

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I. Key Message/Expectations

Attendance is critical to this course. Come to class everyday. If you miss or are going to miss class, you are responsible to gather what you miss from your peers. If you miss a Lab come see me and we will schedule a time when you can make it up. If you miss a test or exam you will write it next class.

This classroom is a safe learning environment. As such I expect everyone to treat each other with respect and kindness.

As this course contains the possibility of working with hazardous chemicals there will be increased safety requirements. We will go over lab safety in class.

Ask questions when you need to. I am more than happy to answer them. I believe that all of my students are capable of success in this course. I want you all to succeed so do not be afraid to ask for help, either from myself or your peers.
If you would like extra help, I will be available during lunch and after school.

SAFETY

Science is an exciting field with a lot of hands-on laboratory work. Students are required to listen diligently to instructions before engaging in any lab activities in order to ensure their safety. Safety will be covered before all lab activities, but know that the following rules apply to student conduct in the laboratory environment.

- Shoes are to be worn (and tied so you don't fall on your face) at all times.
- Goggles may be required and will be provided
- All equipment must be handled carefully.
- Absolutely no horseplay or unsafe behaviour will be tolerated at any time.

II. Course Overview

Science 14/24 is a general science program that helps students better understand and apply fundamental concepts and skills based on observation and evidence. The program encourages enthusiasm for scientific inquiry and develops positive attitudes about science as an interesting human activity with personal meaning. This class is a combination of the two courses that meets all the curricular outcomes for science 14 and science 24. Completing this class will result in acquiring up to 10 credits and achieving the 20 level science needed to receive a diploma.

III. Scope and Sequence

Science 14/24 will have 3 Units over the semester.

1. Chemistry (30%)
    a. Safety & Understanding Matter
    b. Everyday Chemistry & Chemical Reactions
    c. Mixtures & The Environment
2. Biology (40%)
    a. Structure & Function of Cells
    b. Life Functions Common to Living Things
    c. Food for Life
    d. Disease
    e. Genetics & Health
    f. Matter & Energy in the Biosphere
    g. Fossil Fuels
3. Physics (30%)
    a. Heat & Heat Transfer
    b. Simple Machines & Energy Transfer
    c. Electrical Energy
    d. Safety in Transportation

IV. Teaching Methodology

I will be teaching this course using a wide variety of methods. Some of which may include, lectures, hands on learning, multimodal sources, group projects.

V. Assessment

Assessment breakdown:

- Coursework - 80%
    - Labs
    - Classwork
    - Projects
    - Checklist
- Final – 20%

Marks will be uploaded to PowerSchool within two weeks after the due date.

Assessments will include small daily work assignments, Larger group projects, Labs, one-on-one and group conversations.

In this classroom we will strive to enable students to demonstrate what they understand, know and can do. Multiple and varied approaches will be used for assessment purposes, with special attention to the role of differentiated learning. Only summative or assessment of learning activities will be used to determine coursework grades.

VI. Resources and Materials

To every class bring:

- Writing Utensils
- Paper (binder or notebook)
- Note Packages
- Textbook