Course Outline

Science Grade 7

2023-2024

Teacher:

Mrs. O'Keefe

<u>Work will consist of:</u>

Test/Quizzes / Assignments/ Homework

Observations & Conversations →(A major part in the course)

Expectation is to follow the school rules, come to class prepare to do work. Everything that is done on the board is a part of your notes and must be written down. **<u>You are expected to bring your notebooks and pencils every day</u>**. Stay positive, work hard and respect yourself and others.

All homework and class notes are available on the school website http://blackville.nbed.nb.ca/

Click on the "Teacher's Page " ⟶ "Mrs. O'Keefe"

***No phones in the classroom ***

The last few years there was a provincial assessment so we will assume that there will be one this year as well.

Below is a list of topics that we will focus on this year.

The Nature of Science: Core ideas and contexts	
Matter	• Particle model of matter: States of matter e.g., solids, liquids, gas and plasma • Quantitative analysis of physical properties: Temperature, mass, volume, and density • Energy transfer and conservation: 1st Law of thermodynamics; heat vs. temperature; energy transfers: convection, conduction, radiation; role in transforming matter • Heating curve: Temperature; heat vs. temperature; boiling, melting, and freezing points of water
Weather Systems and Climate	• Earth systems: biosphere, atmosphere, hydrosphere, and geosphere • Definitions: Weather, climate, global warming • Cycles: Seasons e.g., day-night (sunlight); water e.g., fresh water, salt water; atmospheric flow patterns; role of gravity • Water in the atmosphere: Complex patterns of changes; movement e.g. winds, landforms, ocean temperatures and currents; phases e.g., solidification, evaporation, transpiration, condensation, sublimation; precipitation e.g., rain, snow, sleet, hail, etc. • Quantitative analysis: Insolation (light intensity), albedo, air temperature, wind speed and direction, humidity, barometric pressure, amount of precipitation, etc. • Weather patterns: Trends and relationships between barometric pressure, temperature, precipitation patterns and weather systems • Meteorology: Weather instruments e.g., analog and digital instruments; remote sensing e.g. satellite imagery; monitoring, reporting and predicting e.g., Traditional knowledge systems, farmers almanac; accuracy and reliability