

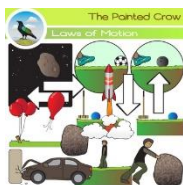


Course Outline  
**Science Grade 8**  
 2023-2024



**Teacher:**

Mrs. O’Keefe



**Work will consist of:**

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. **You are expected to bring your notebooks and pencils every day.** 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.

<b>The Nature of Science: Core ideas and contexts</b>	
<b>Motion &amp; Stability</b>	<ul style="list-style-type: none"> <li>• Qualitative descriptions of motion: Direction of movement, time taken to travel a set distance, acceleration, rotation and revolution</li> <li>• Force as a physical property: Push-pull, area, and pressure</li> <li>• Forces and Interactions: Contact, gravitational, and muscular</li> </ul>
<b>Laws of Motion</b>	<ul style="list-style-type: none"> <li>• Definitions: Hypothesis, theory and law</li> <li>• Law of Gravity: force, 9.8 m/s/s</li> <li>• Newton’s Laws: 1<sup>st</sup> Law: Inertia, net force, balanced and unbalanced forces; 2<sup>nd</sup> Law: Effects of force and mass on acceleration; and 3<sup>rd</sup> Law: Action-reaction, Forces in pairs</li> </ul>
<b>Space Exploration</b>	<ul style="list-style-type: none"> <li>• Solar System: Earth’s place in the universe; Movement of celestial body e.g., rotation, revolution; types of celestial objects e.g. NEO, planets, moons, stars, etc.</li> <li>• Space Travel: Aeronautics – Rockets, propulsion, fuel, navigation and steering, and atmospheric drag; Spaceships – Design and construction, parts of a rocket, form and function e.g. the ISS modular design; and Propulsion – hydraulics, gravity, atmospheric drag, and friction</li> <li>• Living and working in space: Hazards, Zero-gravity, effect on human systems, etc.</li> </ul>
<b>Technological Applications</b>	<ul style="list-style-type: none"> <li>• Robotics: Canadarm (1 and 2)</li> <li>• Remote sensing; telescopes; RADARSTAT satellites; etc.</li> </ul>