

Mr. Renwick's Physics 11

Course Outline 2025-26

Contact Information

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Website www.MrRenwick.ca
<https://mrrenwick.ca/index.php/classes/physics-11-2025-26/>

Availability During FIT blocks or after school (not between classes, during lunch, or before school)

Curriculum

This class is built around the curriculum provided by the BC Ministry of Education. Formula sheets will be given for all tests, as I believe that understanding concepts and the application of the scientific method is far more important than memorizing formulas that can be easily found on the Internet. The curriculum can be found at:

<https://curriculum.gov.bc.ca/curriculum/science/11/physics>

The curriculum focuses on the following Big Ideas:

1. An object's motion can be predicted, analyzed, and described.
2. Forces influence the motion of an object.
3. Energy is found in different forms, is conserved, and has the ability to do work.
4. Mechanical waves transfer energy but not matter.

The primary focus of this course will be systematic, well-structured scientific inquiry, structured around the Big Ideas. Students will learn valuable scientific skills, referred to as the Curricular Competencies:

- Questioning and predicting
- Planning and conducting
- Processing and analyzing data and information
- Evaluating
- Applying and innovating
- Communicating

Each skill will be evaluated individually using the proficiency scale (Insufficient Evidence, Emerging, Developing, Proficient, Extending). For report cards, the Curricular Competencies will be equally weighted (16.7% each) and converted to a percentage.

Every student has an Excel spreadsheet that has been shared with them. This spreadsheet will contain your marks for every assignment and quiz we do this year.

These skills will be applied to a variety of topics. We may not necessarily cover all content areas, and may cover areas that are not listed here.

- Kinematics: vectors/scalars, distance, velocity, acceleration, projectile motion
- Dynamics: contact forces, Newton's Laws of Motion, force of gravity, elastic force
- Work, Energy, and Power: First Peoples use of simple machines, calculating work, conservation of energy, efficiency
- Electric circuits: DC circuits using resistors, switches, and light emitting diodes (LED's)
- Thermodynamics: heat transfer, human nutrition
- Waves: mechanical (springs), sound waves, light waves