Mr. Renwick's Physics 12 Name: _____
Project - Build an Electromagnet

Learning Intentions

- To learn how to plan and conduct an experiment related to electromagnetism
- To learn how to apply the results of an experiment to an engineering problem

Project Description

You and a partner have to build an electromagnet that can generate the largest force possible. You will be able to use 5 metres of thin wire in your electromagnet. There are a variety of metal objects (screws, nails, etc.) in the classroom that could be used as cores for the electromagnet.

To help design your electromagnet, you must run 1 or 2 mini experiments. You will have up to 2 metres of wire to use in the experiment(s). Each experiment should include a hypothesis, procedure, data, analysis, and conclusion. Be sure to create high quality experiments, so that you can have confidence in using the results in the design of your electromagnet.

At the end of the project, you will submit your lab report(s), as well as an additional paragraph describing the reasons for the design of your electromagnet.

As a class, we will test each electromagnet and see what is the largest mass that it can pick up.

Assessment

https://mrrenwick.ca/index.php/course-materials/physics-11/assessing-curricular-competencies

	Emerging	Developing	Proficient	Extending
Content				
Electromagnetism				
Curricular Competencies				
Questioning and predicting				
Planning and conducting				
Evaluating				
Applying and innovating				