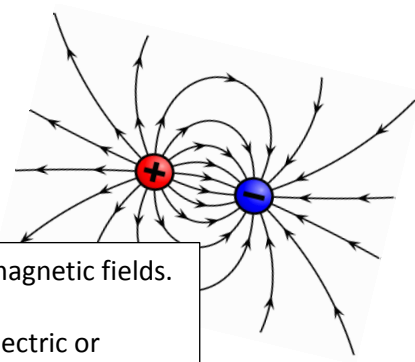


Gravitation, Electric and Magnetic Fields Presentation



Goals: Analyze the operation of a technological system that uses gravitational, electric or magnetic fields.

Assess the impact on society/environment of a technology that use gravitational, electric or magnetic fields.

How you will be assessed:

Communication → This is a presentation to the class. You need a visual to help us understand your topic.

The visual can be: a powerpoint slideshow, prezi, model, drawings on the board and/or a demonstration.

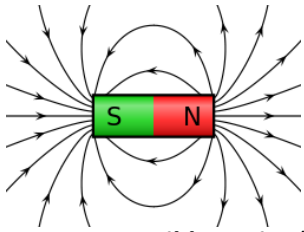
- Make sure any electronic files will work in class BEFORE the presentation date.

K&U → Explain your technology using appropriate GEM field concepts and theory.

How does it work? Why is gravity, electrostatic and/or magnetic fields essential to its operation?

Application → Discuss the pros/cons to this technology with reference to both society and the environment. For best marks, you will also make a judgement, backed with facts, on whether this technology is generally helpful or harmful. Is is a good use of research dollars? Why or why not?

Inquiry → Make proper research notes. This includes recording the source and date you took the notes. All notes are in point form or sentence fragments. This ensures when you reconstruct sentences, you are not plagiarizing. It will sound like you. It also ensures that you understand what you researched.



Time length = 5 – 7 minutes in length.

Possible topics (not limited to – you can get a different topic ok'd by teacher. It must of course involve gravitational, electric or magnetic fields!)

- capacitors	- magneto hydrodynamic (boat) – Vancouver
- levitation tracks	- magneto-rheological (MR) fluid dampers (earthquake protection)
- MRI (magnetic resonance imaging)	- radio frequency identification chips? (how do they work for inventory?)
- X rays	- radio transmission and reception
- particle accelerators	- using gravitational fields to find mineral deposits.
- rail guns	- electroplating (automotive)
- electroencephalography (ΔV)	- electroretinography (ΔV)

RUBRIC

Name: _____

Topic : _____

Criteria	Grade /10			
	5 or 5.5	6 or 6.5	7 or 7.5	8 → 10
<p>Communication (A1.11)</p> <ul style="list-style-type: none"> - communicate ideas using appropriate language (specific vocabulary) in a variety of formats (presentation with visuals this time) <p>Visual = slideshow, prezi, model, drawing on board, demonstration etc.</p>	- had a visual aid, however not used well or at all.	- some effective use of visual to explain topic.	- effective use of visual aid to help explain topic.	- highly effective use of well-chosen visual that helps viewers make connections.
<p>Knowledge & understanding (D1.1)</p> <ul style="list-style-type: none"> - can demonstrate a basic understanding of how the technology works with reference to appropriate force fields: gravitation, electrostatic and/or magnetic. 	- Attempts to explain technology but has significant errors/omissions.	- Able to explain but has several errors/omissions.	- Able to explain with some minor omissions and/or errors.	- Able to explain with <u>no</u> errors /omissions or <u>very</u> minor error/omission. <u>Thorough</u> understanding of field theory as applied to technology chosen.
<p>Application (D1.2)</p> <ul style="list-style-type: none"> - assess the impact on society and the environment of technologies - Consider positive & negative impacts. - opinion on overall good/use of technology 	- attempts. Discussion is weak or significantly incomplete.	- decent attempt. There are some notable gaps.	- meets all criteria with some minor omissions and/or errors.	- meets all criteria with no errors/omissions or very minor error/omission. - insightful analysis or assessment of device. - Indepth.
<p>Inquiry (A1.7)</p> <ul style="list-style-type: none"> - selects, organizes, and records relevant information and uses an accepted form of academic documentation <p>ie: has proper research notes (point form) and bibliography (APA format)</p>	- struggling with research notes and bibliography. Has both but significant errors and/or omissions.	- Attempts both research notes and bibliography. Some errors and /or omissions	- Able to complete research notes and bibliography in proper format with minor errors/omissions.	- Able to complete research notes and bibliography in proper format with very minor or no errors/omissions.

Comments