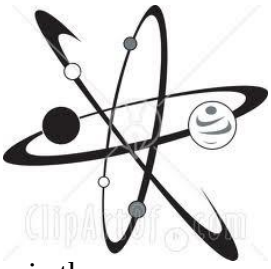
Physics Presentation Guide



Rationale:

In many cases students in science do well when they study a topic they are interested in. Additionally, many students have personal experience in a particular area of physics that they can share with their fellow students. The rationale of our final presentation is to take advantage of the previous facts and allow you to explore a particular area of physics, or a special problem, and share it with your fellow students. As you design your presentation you should view yourself as the teacher and view your audience as the students. How will you present the physics to your colleague so that they learn what you know? How will they take the information in your presentation with them after the day is done?

Presentation Medium:

As you design your presentation you will need to identify how you will disseminate information to your fellow students. Below is a list of methods that are appropriate for your final presentation:

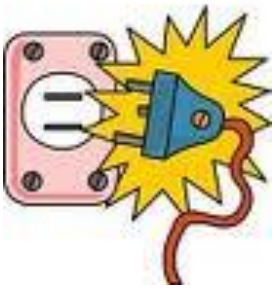
PowerPoint Presentation
Webpage
Film Production
An Interactive Informative Handout

If you have other ideas for the method you want to use for your presentation, then check with you instructor to discuss your approach.

Possible Topics:

1) Heat and Temperature

Kinetic Molecular Theory
The Laws of Thermodynamics



2) Electricity

Voltage, Current, and Resistance
Circuits (Ohm's Law)
Generators
Direct Current vs. Alternating Current
Electrical Ground
Etc.

3) Sound

Speed of Sound in a Medium
Echoes and Reverb

Snell's Law
Medical Applications

4) Vectors with Trigonometry

Re-teach Velocity and Acceleration as Vectors
Re-teach Force as a Vector

5) Environmental Issues (Research an Application)

Solar Panels
Geothermal Heating and Cooling
Wind Power
Alternative Fuels
Building Design
Food Production

6) Gas Laws

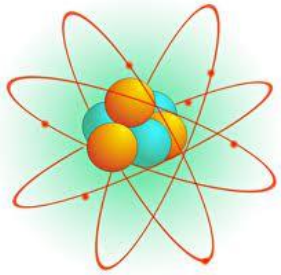
Boyle's Law
Gay-Lussac's Law
Avogadro's Law

7) The Solar System

Measuring a Planet, mass, volume, radius, and density, gravitational attraction to other planets, etc.
Kepler's Law of Planetary Motion
Exo-planets

Project Checklist:

Your presentation should be informative and quantitative in nature; all of your fellow students must be provided with an artifact that will allow them to take the information in your presentation with them so they have access to it at a later time. Your project should include all the items listed below:



- ✓ Clearly stated topic with objectives (2 Points)
- ✓ Presentation medium (2 Points)
- ✓ Oral Presentation (4 Points)
- ✓ Professionalism/Clarity (4 Points)
- ✓ Content that is rich with physics and/or calculations (4 Points)
- ✓ Bibliography and Works Cited (Sources) (2 Points)