AP physics final project 2018

Grading criteria: PROPOSAL: You will submit the proposal this is a pass/fail requirement.

1. What your project will be
2. What concept/unit will it demonstrate

So…You can change projects, just do a new proposal. K.

**WORK HABITS**: 25%

Your daily interactions will be assessed on a pass/fail basis, or appropriate sliding scale, will comprise 25% of the project grade. You should be focused, engaged, and making progress towards your final outcome. If you are, then you receive full credit. If you are not, then you will not.

1. Don’t come expecting to do work for another class!!! You Read this yesterday, I’m sure you have a good reason, just realize the decision you are making. **25 % off your final grade**
2. Do come to class!!
3. Do not spend more than **one period** retrieving materials, document this in your work log on that day.
4. Use/practice your project repeatedly to ensure its reliability.

FINAL PROJECT: Your project will count for your **second semester final exam** grade,

**- “A” project:**

- Demonstrates complete conceptual understanding

- Entertains while it educates

- Accomplishes demonstration as set forth in your written project proposal

- Is error-free and works

- Is fit for publication/display on my website, or can be used as an exemplar for future classes

- Demonstrates conceptual understanding

- Project fulfills your objective as set forth in your project proposal, commendable achievement

**“B-”/“C” project:**

- Demonstrates some understanding

- Is fairly complete

- Just misses your objective as set forth in your project proposal

- Contains some errors

- Represents adequate achievement

**“C-“/”D” project:**

- Demonstrates obvious misconceptions

- Is sorely incomplete

- Is nowhere close to fulfilling the objective as set forth in your project proposal

- Contains multiple obvious errors

- Represents limited evidence of achievement.

Default for no project: take a traditional comprehensive final (PS. It’s hard)

Final project requirements: Due the **last day you’re in school** this year.

1. You have to make a “thing” Has to be tangible or recreate a lab activity
2. Yes, this is your final and is worth 20% of your grade.
3. Yes, you can work in pairs
4. Project Idea must be approved by me. In writing:

-What your project will be

-What concept/unit will it demonstrate.

1. Must be created in class, **if you say, “My project is at home.” or “I can’t do anything without \_\_\_\_\_” you fail this portion of the project. (25% of final grade)**

-It is your job to come to class prepared to work on your project every day until you graduate.

1. Don’t buy your project!!!



1. **Your thing must work.** That means no rail guns, it’s not going to work. Even if you are a Star Trek nerd, you might as well build a Phaser!!
2. No building a Phaser

 

1. “New” Photograph of yourself (and partners) making/doing with your project
2. \*\*☺☺ for using recycled materials!!!
3. \*\*☺☺ for making something I can use for years to come!!
4. Must demonstrate a physics principle within the AP physics curriculum and fall under one or more of the following units.

The units are as follows, with examples…

1. Kinematics

-Ski Jump Ramp that lands consistently, ☺ need a class set

- Mini catapult, not crappy, that lands consistently **(not** trebuchet)

1. Dynamics

-Hovercraft

-primitive fire making☺ and bring stuff for s’mores!

1. Work, Power & Energy

-Ballistic Pendulum

-Windmill☺, to turn hand crank generator (I will provide a generator)

1. Linear Momentum

-Bungee Jump

1. Circular Motion & Rotation

- Anything that shows the force directed inward. And dispels the notion of an outward force

-Any type of rotation lab

1. Gravitation

-Gravitation demo table

1. Simple Harmonic Motion

-Wave pendulum

1. Electrostatics

-Anti Gravity Floaty Thing

-Shock the hell out of my superiors at graduation, just kidding, don’t actually do that!!

1. Current Electricity

-demo circuits of series and parallel

-conducting play dough??!!

1. No papers, No presentations
2. If you have no idea at all you can always to a “how-to” lab video thing☺. <https://apcentral.collegeboard.org/pdf/ap-physics-inquiry-based-lab-manual.pdf>
3. You can also take a traditional comprehensive final (PS. It’s hard)