Shoot the Monkey Rubric:

NOTE: You MUST remove your apparatus from the property on or before YOUR last school day, or you will receive a grade of ZERO for your final project!

PowerPoint = 40 pts:
- **Explain the classic physics "Shoot the Monkey" Lab – 10 pts**
- **Explain the following applications from classical Physics**
    - **Gravity – 5 pts**
    - **Free-fall – 5 pts**
    - **Electromagnetism – 5 pts**
- **Show relevant mathematics – application to your construct, actual equations – 10 pts**
- **Logical flow – 5 pts**

Computer Simulation = 25 pts:
- **Show what should happen with respect to:**
    - **Gravity – 5 pts**
    - **free-fall – 5 pts**
    - **electromagnetism – 5 pts**
- **Include your code / site your source – 10 pts**

Video Portion = 60 pts:
- **Clarity – 5 pts**
- **Volume – 5 pts**
- **Everyone in group presents some information – 5 pts**
- **Component-by-component description of your apparatus – 15 pts**
- **Explain what should happen and why – 15 pts**
- **Show your apparatus in action with a narrative of relevant physics – 15 pts**

Your device = 75 pts:
- **Release your "monkey" at the top of the supports – 10 pts**
- **Hit the monkey at the range given on the official launch day – you get 3 tries. – 15 pts**
- **Five bonus points will be awarded to the group who hits their target at the lowest (vertical) height**
- **Have an adjustable *horizontal* range of 8-20 feet – 10 pts**
- **Use projectile motion – in other words, your "monkey" should be able to fall a bit due to gravity before being hit by the projectile – 10 pts**
- **Use electromagnetism / electromagnets – 10 pts**
- **Fit through a standard door – 10 pts**
- <u>**NOT**</u> **use car batteries, gasoline or volatile liquids, or any other potentially hazardous materials / equipment – 10 pts**

No *real* monkeys were actually *shot* at, *aimed* at, *emotionally scarred*, or otherwise harmed in the execution (not *real* execution) of this lab! ☺

Whew!

This project counts as your final exam grade.
Total Possible = 200 points.

Have Fun ☺   *Have Fun* ☺   *Have Fun* ☺   *Have Fun* ☺