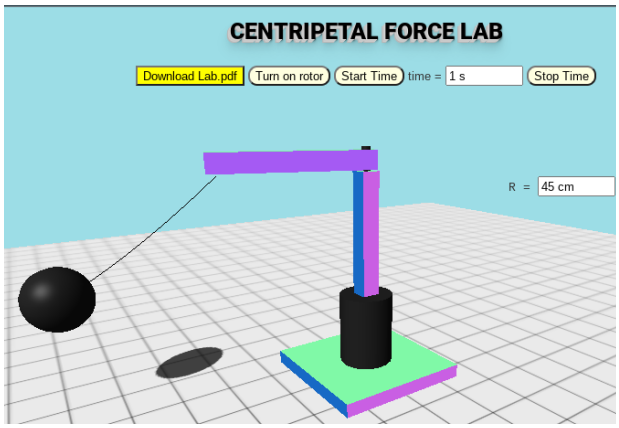
Name _____
Period _____

3D Interactive Physics Simulations

Play with and manipulate 5 of the simulations listed.
Answer the following questions, please answer in 3-4 sentences each:

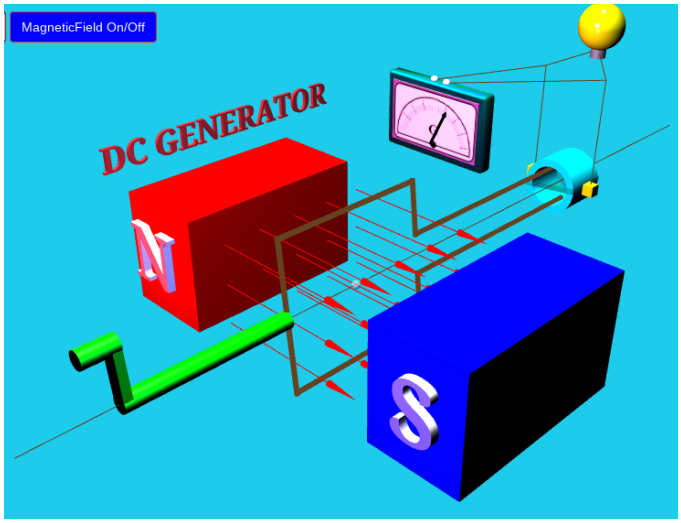
1. Which 5 simulations did you play with?
    a. Ballistic Pendulum
    b. Archimedes Principle
    c. Electric Potential
    d. DC Generator
    e. Centripetal Force

2. What was interesting about these simulations to you?
    These simulations were interesting because the titles of each sounded appealing to me and I wanted to see these in action. With electric potential, I am currently learning about physics and wanted to see if there was a visual representation of it. These simulations helped me understand some things, in particular, centripetal force.
3. Pick one simulation, take a screenshot and describe what's going on.
    How does the simulation change when you change the input variables?



As the motor rotates counterclockwise, the crane-like structure suspends a ball in the air from a farther distance greater than the the length of the crane. The simulation does not change if variables are changed.

4. Pick another simulation, take a screenshot and describe what's going on. How does the simulation change when you change the input variables?



When the spindle is cranked clockwise through a magnetic field of opposite poles, it generates voltage. The voltage is measured by a monitor and lights up a bulb before returning back. Although no variables can be changed, an option can be clicked, StepByStep, to show the voltage generated over a period of time.

5. What's your favorite simulation given this site?
My favorite simulation would be centripetal force. I liked this simulation because it was really interesting to see the ball move around this motion. This lab, in addition, explains how wrecking balls function and what initial rotational force is needed to get a rotational swing.