**AP Physics – Models of an Atom PhET Lab**

Today, you will use the Models of an Atom PhET Simulation to explore different models of an atom and their characteristics.

**Part 1 - Experiment**

1) Open the Models of the Hydrogen Atom PhET simulation and click the Experiment control. What can you change?

2) Play with the simulation stay on the Experiment option. Record your observations below.

3) Why do you think there is a box hiding the H atom?

4) Why is there a disclaimer that says “Drawings are not to scale”? What does this tell you about the limitations of using the simulation?

**Part 2 – Prediction**

Now you will explore the **four** different models of an atom. You will select which four to study. Using the internet or your textbook include a brief description of each model before you use the simulation.

5) Model #1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a) Description

b) General Characteristics

c) What happens when the light is off?

d) What happens when a photon is absorbed/emitted?

6) Model #2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a) Description

b) General Characteristics

c) What happens when the light is off?

d) What happens when a photon is absorbed/emitted?

7) Model #3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a) Description

b) General Characteristics

c) What happens when the light is off?

d) What happens when a photon is absorbed/emitted?

8) Model #4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a) Description

b) General Characteristics

c) What happens when the light is off?

d) What happens when a photon is absorbed/emitted?