**PreAP Physics – Waves on a String PhET Lab**

Today, you will use the Waves on a String PhET Simulation to investigate the properties of waves.

**Beginning Observations**

1) Open the Waves on a String PhET simulation. What can you change about the simulation?

2) Draw what you see on the screen.

3) What are the main differences between the manual, oscillate and pulse functions?

**Part 1 – Manual**

1) What are the two things you can change on the manual setting?

2) Change these two items and record your observations below.

**Part 2 – Oscillate**

1) What are the four things you can control at the top of the screen?

2) What are the three types of ends you can have?

3) Now you will, investigate how a wave behaves when it has a “fixed”end. Before you begin. Define fixed end in your own words below.

Fixed end - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write a short procedure on how you could investigate the four properties that you listed in #1.

Record your results below. Write a brief definition of each word you listed in #1 in your own words.

4) Repeat #3 with a loose end. Before you begin define loose end in your own words below.

Loose end - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write a short procedure on how you could investigate the four properties that you listed in #1.

Record your results below. Write a brief definition of each word you listed in #1 in your own words.

5) Briefly investigate the no end setting. Describe what happens to the wave when no end is present.