

2007_phet_wave_lab

Honors 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.