

# Waves Lab

Names \_\_\_\_\_

You will need your Chromebook to read the directions on the website. Work in your quadpods, and submit a group lab.

## **A.** Tension and velocity (Small spring, any open area/Chromebook)

Which is faster? (The high tension or the low)

## **B.** Wavelength and frequency (Mondo spring in the front of the room/Chromebook)

What is the relationship between frequency and wavelength?

## **C.** Wavelength and Wavespeed (Chromebook at your desk)

What is the relationship between wavespeed and wavelength? (As you increase wavespeed, what happens to the wavelength)

## **D.** Reflections (Chromebook at your desk)

What happens to the pulses as they reflect off the Fixed ends? (Do they reflect upright or inverted?)

What happens to the pulses as they reflect off the loose (Free) end? (Do they reflect upright or inverted?)

## **E.** Types of waves (Small Slinky - empty table, or floor)

In your own words, write a definition of a longitudinal wave, and a transverse wave

## **F.** Superposition (In the hall with a long slinky)

- We certify that we completed the two tasks in the hall with the slinky and the cups

In your own words, write a definition of the principle of superposition.

# G. Standing waves

Draw the first three modes of

Both ends fixed:	One End Fixed:	Both Ends Free:
		