Lab Worksheet: Waves, Wavelength and Amplitude

Read all instructions before beginning.

Materials

- Slinky
- Ruler

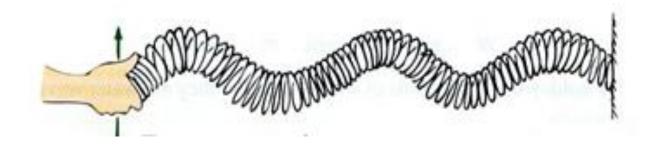
Experiment

Amplitude and Wavelength

- 1. Two students will hold the ends of the slinky one at each end.
- 2. Stretch the slinky out without pulling too far.
- 3. Place the ruler next to the slinky.
- 4. One student will slide the slinky back and forth (side to side on the floor) while the other student holds the other end of the slinky still. Do this slowly, 3 times, keeping the distance that you move the slinky the same each time.
 - Measure the distance that your hand moves.
 - Measure the wavelength of one wave.
 - Turn the ruler and measure the amplitude of the wave.

Draw a picture in box #1 of the wave you create. Write the amplitude and wavelength of the wave.

5. Repeat #4 but increase how far you move your arm from side to side. Draw the picture of this wave in box #2.



Box #1: First Wave	Distance the hand moved to create the wave:
Box #2: Second Wave	Distance the hand moved to create the wave:
Draw a line labeling the those lines.	wavelength and amplitude of the waves in boxes 1 and 2. Label
Answer the questions.	
When did you use the m	ost energy to move the slinky?
Circle the word to fill in the	he blanks.
When I moved my arm _ decreased) in size.	(more / less), the amplitude of the wave (increased /