

Name \_\_\_\_\_ Hour \_\_\_\_\_

**Wave Race – Activity 1**

Use two snakeys attached to metal rods for each race unless otherwise stated. As pictured [here](#).

<b>Variable</b>	<b>Constants</b> (circle the right ones)	<b>Diagram/Description of the setup</b>	<b>Results</b> (Which one won?)	<b>What did you learn?</b>
<b>Amplitude</b> (1/2 block high, 1 block high)	<b>Amplitude</b> <b>Wavelength</b> <b>Tension</b> <b>Linear Density</b>			
<b>Wavelength</b> (2 blocks long, 3 blocks long)	<b>Amplitude</b> <b>Wavelength</b> <b>Tension</b> <b>Linear Density</b>			
<b>Tension</b> (Measure with a spring scale in N)	<b>Amplitude</b> <b>Wavelength</b> <b>Tension</b> <b>Linear Density</b>	<b>Force spring 1 =</b>  <b>Force spring 2 =</b>		
<b>Linear Density</b> (1 metal slinky, 1 plastic slinky)	<b>Amplitude</b> <b>Wavelength</b> <b>Tension</b> <b>Linear Density</b>			

Analysis:

1. As amplitude increase, the wave speed does what?
2. As wavelength increases, the wave speed does what?
3. As tension on the spring increases, the wave speed does what? (Be careful on this one and remember the more stretched spring traveled more distance.)
4. As density of the medium increases, the wave speed does what?