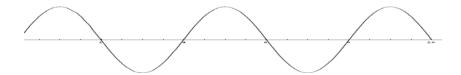
## **Sound and Wave Basics**

Name:			

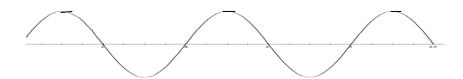
Use the PhET sim *Wave on a String* for questions 1-6. <a href="http://PhET.colorado.edu">http://PhET.colorado.edu</a>

Play around and get familiar with the sim first. Be sure to try out all the buttons.

- 1. Are you familiar with longitudinal and transverse waves? Which type of wave is being shown by this sim?
- 2. Use arrows, or draw on the wave, to show what will happen when the **amplitude** is increased:



3. Use arrows, or draw on the wave, to show what will happen when the **frequency** is increased:



- 4. What direction does each individual part of the string move when a wave travels along it?
- 5. What direction does the actual wave move (hint, try pulse)?

Use the <i>Sound</i> sim from PhET for questions 7 – 11.					
Play around and get familiar first. Select <b>Audio Enabled</b> to hear the sound.					
6. Which type of wave is being shown by this sim - longitudinal or transverse?					
7. When you change the <b>frequency</b> , how does the sound change?					
8. How does the model that you see change when you change the frequency (include a diagram)?					
9. How does changing the <b>amplitude</b> affect the sound you hear and the model that you see?					