**Name: \_\_\_­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Grade: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Sound Waves**

**Pre-lab**

A wave is created on this string by moving the wrench up and down.



1. What would change if the wave had a higher frequency and smaller amplitude?

**Draw how the string would look** for a higher frequency, smaller amplitude wave over this picture of the wave:



1. What would change if the wave had a lower frequency and larger amplitude?
**Draw how the string would look** for a lower frequency, larger amplitude wave over this picture of the wave:



1.  If you were to **create this wave by moving the wrench up and down,** describe how you would **move the wrench differently** to make the high frequency, small amplitude wave compared to a low frequency, large amplitude wave?

Motion to make a high frequency, small amplitude?

Motion to make a low frequency, large amplitude?

1. A student is listening to some pure notes that are produced using an electronic piano:

  

 **A B C**

1. Which picture or pictures (A, B, or C) would best show the student listening to a high-pitched sound?

Why do you think so?

1. Which picture or pictures would best show the student listening to a loud sound?

 Why do you think so?

1. Which picture or pictures would best show the student listening to a low frequency sound?

 Why do you think so?