

Sound Waves Simulation Worksheet
6th Grade Science
Mr. Vehslage

Name:
Section:

Go to <http://phet.colorado.edu/new/simulations/sims.php?sim=Sound> and click "Run" to start the simulation.

- I. In the Sound Waves simulation, go to the **Listen to a Single Source** tab.
1. If you notice in the far-right handed corner, under Frequency it says 500Hz. Hz?...we've never talked about that before. However, you already know what frequency means. Therefore, what do you think this unit called Hertz (Hz) means? What does 1 Hz represent?

2. What do the dark and light bands represent? (Remember, sound waves are *longitudinal waves*.)

3. Why do the waves get lighter with distance from the speaker?

Select the Audio enabled and 'Listener' features.

4. What happens when you move the man back and forth? Why?

5. What happens to the waves and the sound when you keep the amplitude constant but increase and decrease the frequency? Try and be as descriptive as possible.