Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hr \_\_\_

 **Bill Nye:**

1. Sound is \_\_\_\_\_\_\_\_\_\_ vibrations of \_\_\_\_\_\_\_\_\_\_.
2. An oscilloscope is a device that lets us see \_\_\_\_\_\_\_\_\_\_ in the air.
3. Sound travels 18X faster through \_\_\_\_\_\_\_\_\_\_ than \_\_\_\_\_\_\_\_\_\_.
4. A slinky is perfect to show us how \_\_\_\_\_\_\_\_\_\_waves travel through \_\_\_\_\_\_\_\_\_\_.
5. What happens when the wave his the wooden barrier?

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1. What is it called when a sound wave hits something and bounces back?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Sound waves often reflect off \_\_\_\_\_\_\_\_\_\_ surfaces.
2. \_\_\_\_\_\_\_\_\_\_ waves enter the ear canal.
3. The eardrum \_\_\_\_\_\_\_\_\_\_, which moves tiny \_\_\_\_\_\_\_\_\_\_ in the middle ear. The bones pound on the seashell shaped inner ear.
4. The waves hit tiny hairs, which send \_\_\_\_\_\_\_\_\_\_ to the brain to process the sound.
5. Higher frequency (more waves per second) means \_\_\_\_\_\_\_\_\_\_ pitch.
6. Lower frequency (less waves per second) means \_\_\_\_\_\_\_\_\_\_ pitch.
7. Things tend to vibrate at their natural \_\_\_\_\_\_\_\_\_\_.
8. \_\_\_\_\_\_\_\_\_\_ are specialized structures designed to receive sound.



1. Draw a Transverse wave.

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1. Label the above wave with the rest position, amplitude, crest, trough, and wavelength.
2. Draw a wave with a higher frequency than the wave you drew on #15.

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1. Draw a wave with a lower frequency than the wave you drew on #15.

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