

Read pages 302 – 309 and 314 - 320.

1. Are sound waves transverse or longitudinal?
2. What is the medium that sound waves travel in?
3. Does sound travel faster in hot air or cold air?
4. Does sound travel faster through solids, liquids or gases?
5. List three properties of sound our ears can detect.
6. Sound A has a high pitch and Sound B has a lower pitch. Which sound has the longer wavelength?
7. A violin plays the note "A". The first time it is played it is very loudly and the second time it is played softly. What is the difference between the two sounds?
8. What unit is used for measuring the loudness of sounds?
9. A piano and a guitar both play the same note. Why do they sound different to our ears?
10. What does the science of acoustics study?
11. A train is coming toward you and it is blowing its whistle. The train's whistle has a frequency of 500 Hz when the train is standing still. Will the frequency of the sound be higher, the same, or lower as the train approaches you?
12. Which animals use echolocation?
13. List three uses for sonar.
14. What is the difference between an infrasonic wave and an ultrasonic wave?
15. List one use for infrasonic waves.
16. List one use for ultrasonic waves.