

SOUND SCAVENGER HUNT

Using Chapter 18 in the textbook (starting on page 644), find the answers to the following questions about sound! This will serve as your notes for the Sound part of our unit. Glue this onto page 146 of your ISN.

SECTION 1: THE NATURE OF SOUND

pgs. 644-649

1. Sound waves begin with a _____. The vibrations disturb nearby _____. The sound waves carry _____ through a medium without moving the _____.
2. Describe the three ways sound waves can interact with the surfaces they come in contact with.
 - a. Reflection:
 - b. Diffraction:
 - c. Interference:
3. The speed of sound depends on the _____, _____, and the _____ of the medium a sound travels through.
4. Describe how the following variables change the speed of sound.
 - a. Elasticity:
 - b. Density:
 - c. Temperature:
5. How did Captain Yeager break the sound barrier?

SECTION 2: PROPERTIES OF SOUND

pages 650-655

6. The loudness of a sound depends on the amount of _____ it takes to make the sound and the _____ from the source of the sound.
7. True or false: Greater energy used to make a sound results in a louder sound.
8. True or false: Loudness increases the closer you are to a sound source. Explain why below:
9. Describe the difference between loudness and pitch.

SECTION 4: HOW YOU HEAR SOUND

pages 662-664

10. Fill in the following chart, listing what parts of the ear can be found in each section of the ear

	Parts of the Ear	Main function of section	Picture
Outer Ear			
Middle Ear			
Inner Ear			

11. List four possible causes of hearing loss

- a.
- b.
- c.
- d.

12. Extended exposure to loud sounds can damage _____ in the ear. The damaged _____ will no longer send signals to the _____.

13. The most common type of hearing loss occurs _____.

14. Describe how hearing aids can be used to help restore some ability to hear.

PATHWAY OF SOUND

Please follow the directions to create the following diagram on page 145 of your ISN

1. Draw a diagram of the ear, including the following parts: outer ear (pinna), ear canal, eardrum, hammer, anvil, stirrup, semicircular canals, auditory nerve, brain.
2. Write a description of pathway of sound on the same page as your diagram. Be sure to explain how the sound originates (where it comes from), and how it ultimately ends up as a sound that you can understand in your brain.