Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour: \_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**How do humans detect sound?**

**Do Now:**

Brainstorm: What do you know about sound?

What do your ears do? They change \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ waves into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ signals that allow you to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

When you hear a sound, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in your ear respond to more than \_\_\_\_\_\_\_\_\_\_\_\_\_\_ different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ makes sense of complex sound because the \_\_\_\_\_\_\_\_\_\_\_\_\_ separates the sound into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Diagram of the human ear:**

What are the major functions of the 3 main parts of the ear?

1. **Outer ear:**

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ is just like a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

Collects sound waves and directs them into the \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. **Middle ear:**

3 \_\_\_\_\_\_\_\_\_\_ act as \_\_\_\_\_\_\_\_\_ and increase the size of the vibrations.

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

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

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

1. **Inner ear:**

Sound vibrations are then turned into \_\_\_\_\_\_\_\_\_\_\_\_\_\_ signals and sent to the \_\_\_\_\_\_\_

Semicircular \_\_\_\_\_\_\_\_\_\_\_ responsible for \_\_\_\_\_\_\_\_\_\_\_\_

**Steps for processing sound:**

1. \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ bounces sound waves into the \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_.
2. \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ directs sound to the \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_.
3. \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ is a thin tissue. Compressions of sound waves cause it to \_\_\_\_\_\_\_\_\_.
4. The \_\_\_\_\_\_\_\_\_\_\_\_\_ is connected to the \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_. When the \_\_\_\_\_\_\_\_ moves, the \_\_\_\_\_\_\_\_\_\_ moves.
5. When the \_\_\_\_\_\_\_\_\_\_\_\_ moves, it bumps the \_\_\_\_\_\_\_\_\_.

 6. The \_\_\_\_\_\_\_\_\_\_ is connected to the \_\_\_\_\_\_\_\_\_\_\_ so it vibrates with the anvil.

 7. The \_\_\_\_\_\_\_\_\_\_\_\_\_ is then connected to the \_\_\_\_\_\_\_\_\_\_\_ which turns \_\_\_\_\_\_\_\_\_\_\_\_\_ into a signal for your \_\_\_\_\_\_\_\_\_\_.