Sound is - \_\_\_\_\_\_\_\_\_\_\_\_\_ waves that travel through a \_\_\_\_\_\_\_\_\_\_\_\_ & can be \_\_\_\_\_\_\_\_\_\_ when they reach a person’s or animal’s \_\_\_\_\_\_\_\_

* + Also called \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

**Remember:**

* + \_\_\_\_\_\_\_\_\_\_\_measures \_\_\_\_\_\_\_\_\_\_\_ (volume/loudness of sound)
  + \_\_\_\_\_\_\_\_\_\_\_ measures \_\_\_\_\_\_\_\_\_\_\_ (pitch of sound)

**Function:**

* The ears gather \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ and send information about sound to your \_\_\_\_\_\_\_\_.
* The three main sections, all with different functions, are:

1.) \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

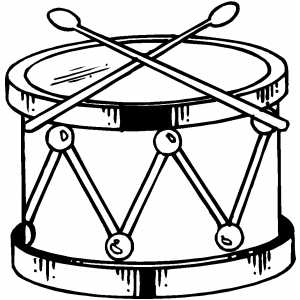
2.) \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

3.) \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

**Outer Ear:**

* The part of the ear you \_\_\_\_\_\_\_\_\_.
* It acts like a \_\_\_\_\_\_\_\_\_\_\_\_, collecting sound waves, and directing them into the narrow region called \_\_\_\_\_ \_\_\_\_\_\_\_.
* Only a few cm long and ends at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

***Eardrum*** – small, tightly stretched, \_\_\_\_\_\_\_\_ like membrane

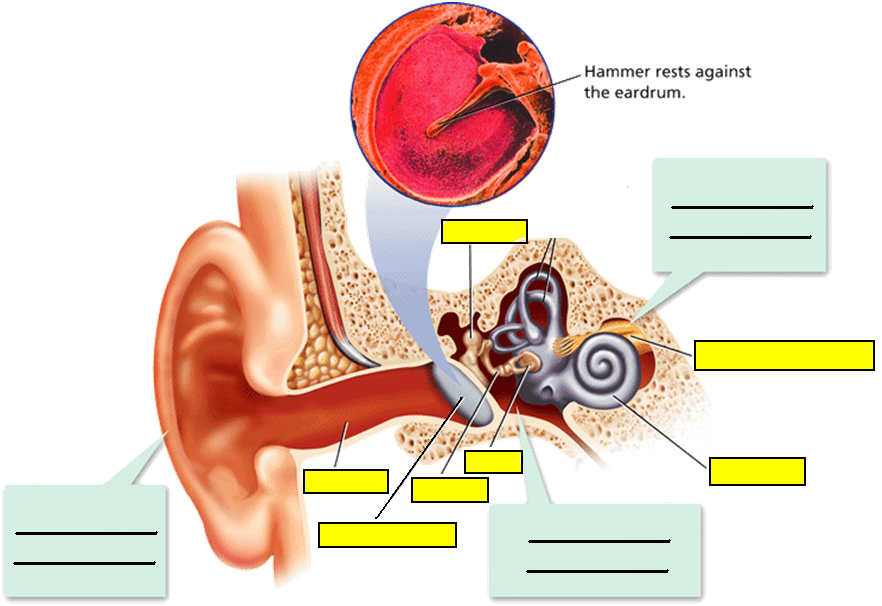
* Sound waves make the eardrum \_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

**Middle Ear:**

* Located behind the eardrum.
* **HAS** 3 smallest \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the body
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The hammer is attached to the eardrum.
* When \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vibrates, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ does too
* Transmits vibrations first to \_\_\_\_\_\_\_\_\_\_\_\_\_\_ then \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

**Inner Ear:**

* There is a membrane that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the middle ear from the inner ear.
* When the stirrup vibrates against the membrane, vibrations pass into the \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_ is a fluid filled cavity shaped like a \_\_\_\_\_\_\_\_ shell.
* Contains more than 10,000 tiny \_\_\_\_\_\_\_\_ cells.
* Hair-like projections float in a \_\_\_\_\_\_\_\_ in the cochlea.
* When vibrations move through the fluid, hair cells \_\_\_\_\_\_\_, causing messages to be sent to the brain through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ nerve.
* The brain processes messages and tells you what you heard.



**Hearing Loss:**

* If hearing is damaged it may cause a difficult time hearing \_\_\_\_\_\_\_\_ sounds or \_\_\_\_\_\_\_-pitched sounds.
* Can be caused by
* \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Exposure to \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_

**Causes of Hearing Loss:**

* Can occur if the eardrum is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can damage the inner ear.
* Excessive \_\_\_\_\_\_\_\_ music can \_\_\_\_\_\_\_\_\_\_\_\_ hair cells so \_\_\_\_\_\_\_\_\_\_ can no longer be sent to the brain.
* With age, some hair cells \_\_\_\_\_\_ in the cochlea and are never \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

****