

Grade 6 Science Test OUTLINE Solutions

Hear & Sound

Sound is a transfer of **energy from vibrating objects** that travel through the air or other medium.

Vibrations – are called **sound waves**.

The reason why **we hear sound** is **because particles vibrate**.

What are 2 types of waves? Transverse waves, **Longitudinal waves**

Transverse waves - are waves where the vibrations of the particles are **PERPENDICULAR**, moving up and down with crest and troughs. **Light travels** through these types of waves.

Longitudinal waves are waves where the **vibrations** of the particles are **PARALLEL (Sound waves)**

Diffraction - **sound** waves can **bend**, this is called

Oscilloscope - is a **device that shows sound waves** on a screen.

Amplitude – the **loudness**

Increase amplitude → **Big sound** waves **are louder** and have more amplitude.

Decrease Amplitude → **Small sound** waves are **softer** and have smaller amplitude.

Decibel is the **measure of amplitude** (or measure of loudness)

Frequency - is the **number of waves** produces in one second.

Pinna - is located on the **outside of your head** (outer ear) . It is what we see as the ear.

Ear Canal – short tube that direct sound to the eardrum.

Eardrum - a **thin membrane** that vibrates in response to sound.

Ossicles – Are **3 bones** found in the middle ear.

(Direction sound travels Malleus → Incus → Stapes)

Cochlea – the **inner ear**, Shaped like a snail.

Auditory Nerve - **Sends** electrical signals **to the brain**.

Vestibular - Means **good balance**.

Short response:

The auditory system consist of 2 parts:

1) Ears

2) Brain

Give 1 example to what can cause blocked vibration in the ear to experience hard of hearing? _____ Build up of wax, fluid on the ear or infection_

Why does a person's hearing get bad as they get older? _____ Loss of hair cells in ear _____

What state of matter does the sound wave travel the slowest? _____ gas _____

What state of matter does the sound waves travel the fastest? _____ solids _____

Must be able to label the parts of the ear

