Sound

VIBRATIONS

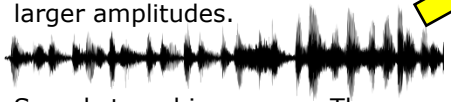
Sound is made when an object vibrates and therefore causes the air around it to vibrate too. These vibrations are carried to your ear for you to hear them.

Sound vibrations can travel through different materials:

SOLIDS: metals, stone, wood
LIQUIDS: water
GASES: air

Sound travels better through some materials than others. It travels very well through metal pipes for example.

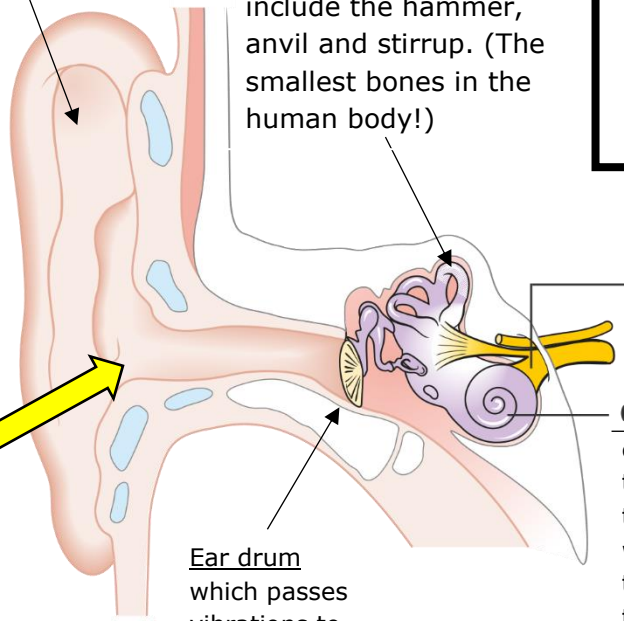
The louder the volume, the bigger the vibrations. The size of the vibration is called the ***amplitude***. Quieter volumes have smaller amplitudes and louder sounds have larger amplitudes.



Sounds travel in a ***wave***. The vibrations make ***air particles*** closes to the object vibrate, which then passes the vibrations to the particle next to it and so on – like dominoes falling!

Outer Ear

Middle ear bones which include the hammer, anvil and stirrup. (The smallest bones in the human body!)



Nerve
sends electrical signals to the brain.

Cochlea
contains thousands of tiny hair cells which change the vibrations to electrical signals.

Ear drum
which passes vibrations to the middle ear bones.

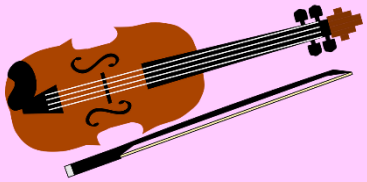
DID YOU KNOW?
Sounds get fainter (quieter) as the distance from the sound source increases.

DID YOU KNOW?
Soundproofing is when a material is used to absorb loud sounds. Recording studios or night clubs might use them to stop sound escaping the room! Soft, spongey or pliable material is often best for this.

PITCH

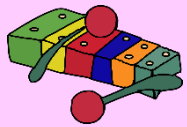
The pitch of a sound is how high or how low it sounds. A high pitch has a high sound and a low pitch has a low sound.

Stringed Instruments
Tighter, thinner or shorter strings make higher pitches. Faster vibrations make pitches high and slower vibrations make pitches low.



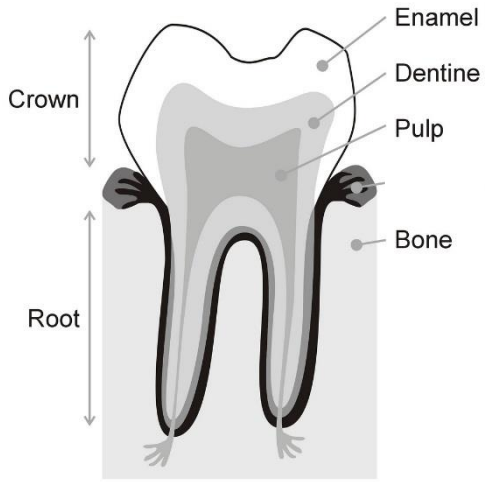
Wind Instruments
The column of air inside the instrument causes it to vibrate. Shortening this makes a higher sound, lengthening it makes a lower sound.

Percussion Instruments
The surface is struck and it therefore vibrates. Smaller instruments have higher sounds (smaller keys of a xylophone, hand bells etc.). The tighter or thinner the skin on a drum, the higher the pitch.

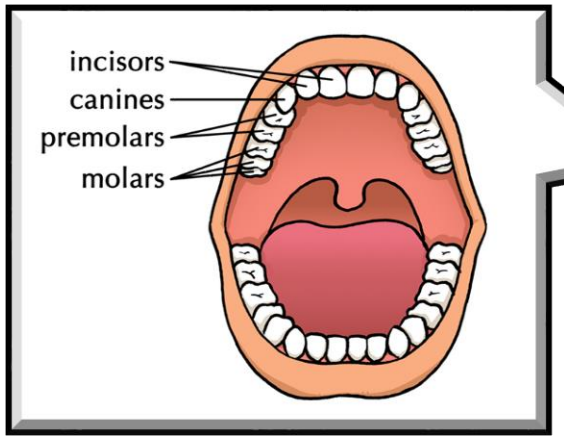


THE DIGESTIVE SYSTEM AND TEETH

Parts of the Tooth



Enamel: The visible part of the tooth. It is harder than bone and protects the tooth.
Dentin: Found underneath the enamel and is similar to bone.
Pulp: Found in the centre of the tooth and is full of blood vessels and nerves. It supplies the tooth with nutrients.

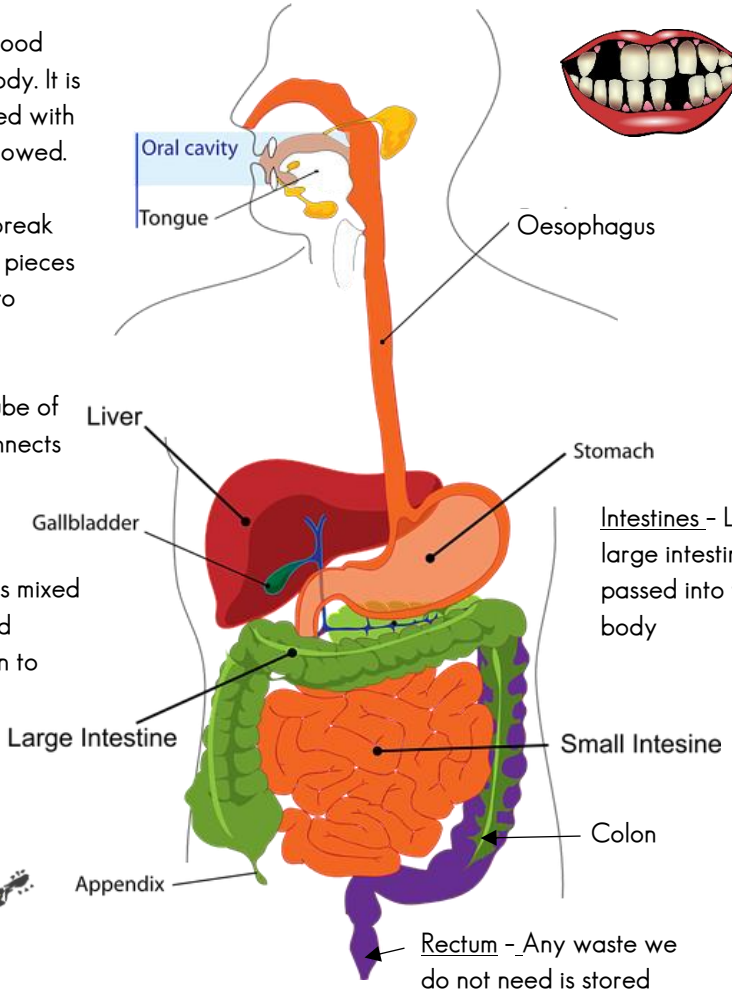


Mouth – Where food first enters the body. It is chewed and mixed with saliva, then swallowed.

Teeth – Used to break food into smaller pieces making it easier to swallow.

Oesophagus – Tube of muscle which connects the mouth to the stomach.

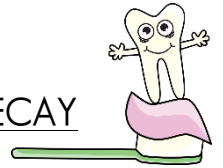
Stomach – Food is mixed with stomach acid and broken down to form a liquid.



Intestines – Liquid from the stomach passes into the small and large intestines. This is where nutrients and water we need is passed into the blood stream and transported around our body

Rectum – Any waste we do not need is stored here until it is ready to leave the body.

TOOTH DECAY



1.) Tooth decay is the destruction of your tooth enamel

2.) It can be a problem for children, teens and adults.

3.) Plaque, a sticky film of bacteria, constantly forms on your teeth.

4.) When you eat or drink foods containing sugars, the bacteria in plaque produce acids that attack tooth enamel.

5.) Tooth ache and bad breath are symptoms of tooth decay.

INCISORS – At the front of the mouth and used for biting
CANINES – Sharpest teeth. Next to incisors and used for tearing. Sharp and pointed in predators for killing prey.
PREMOLARS – Flat, wide and used for chewing towards the back of the mouth.
MOLARS – At the back of the mouth. Used for chewing and grinding food. Wide and flat in shape, including wisdom teeth at the back which appear in adulthood.