

Topic: Animals including humans

Phase: KS2 Y4

Strand: Biology

Prior knowledge from previous year groups:

find out about and describe the basic needs of animals, including humans, for survival (water, food and air)

describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat

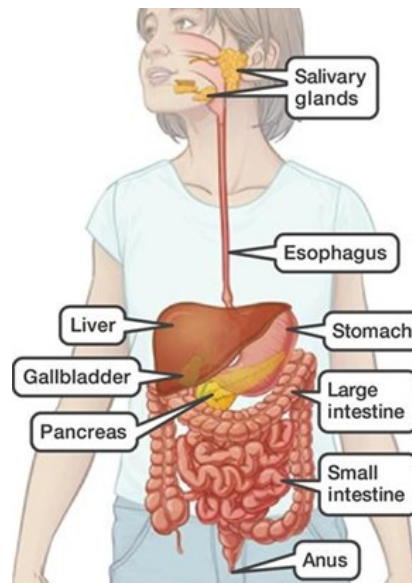
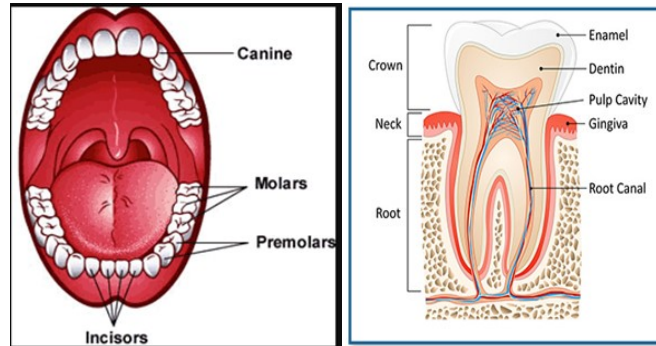
What will we know by the end of the unit?

The different types of teeth and their function.
 incisors- cutting, slicing
 canines- ripping, tearing
 molars-chewing, grinding

The structure of teeth and the effects of decay.
Teeth have three layers: Enamel, (say ee-nam-el) is a hard protective outer layer covering the crown of the **tooth**. Dentine, (say den-teen) is a second protective layer covering the nerve of the **tooth**. Pulp, (also called the nerve) is the soft middle of the **tooth** that has a blood supply and nerve endings.

The simple functions of the basic parts of the digestive system in humans
 The **function of the digestive system** is digestion and absorption. **Digestion** is the breakdown of food into small molecules, which are then absorbed into the **body**. The **digestive system** is divided into two **major parts**:
 The **digestive tract** (alimentary canal) is a continuous tube with two openings: the mouth **and** the anus.

Diagrams:



Vocabulary:

Incisors - a narrow-edged tooth at the front of the mouth, adapted for cutting. In humans there are four incisors in each jaw.

Canine - a pointed tooth between the incisors and premolars of a mammal,

Premolars - a tooth situated between the canine and the molar teeth. An adult human normally has eight, two in each jaw on each side.

Molars - a grinding tooth at the back of a mammal's mouth.

Oesophagus - this squeezes food down into the stomach like a toothpaste tube

Stomach - this organ adds special enzymes which help speed up the digestive process

Large intestine - takes water and some minerals from leftover food material and creates solid waste.

Small intestine - here nutrients are absorbed through the walls into the body

Acids - play a key role in digestion of [proteins](#) by activating [digestive enzymes](#).

Saliva - a watery liquid that is produced to moisten food, so it can be swallowed easily.

Enzymes - these are special proteins that break up large molecules of food into tiny molecules.

Pancreas - Produces digestive juices and helps to control blood sugar.

Anus - this is where solid waste (poo) leaves the body

Digestion - breaking down food so that it is small enough and soluble enough to pass through the wall of the small intestine

Investigate!

- ◆ Make a map of your mouth.
- ◆ How/why do teeth decay?
- ◆ Compare human and animal teeth.
- ◆ Make the digestive system using common household items: tights, sealable plastic bag, orange juice, water, a banana, some biscuits, a bowl and a tea towel.