

Knowledge Organiser

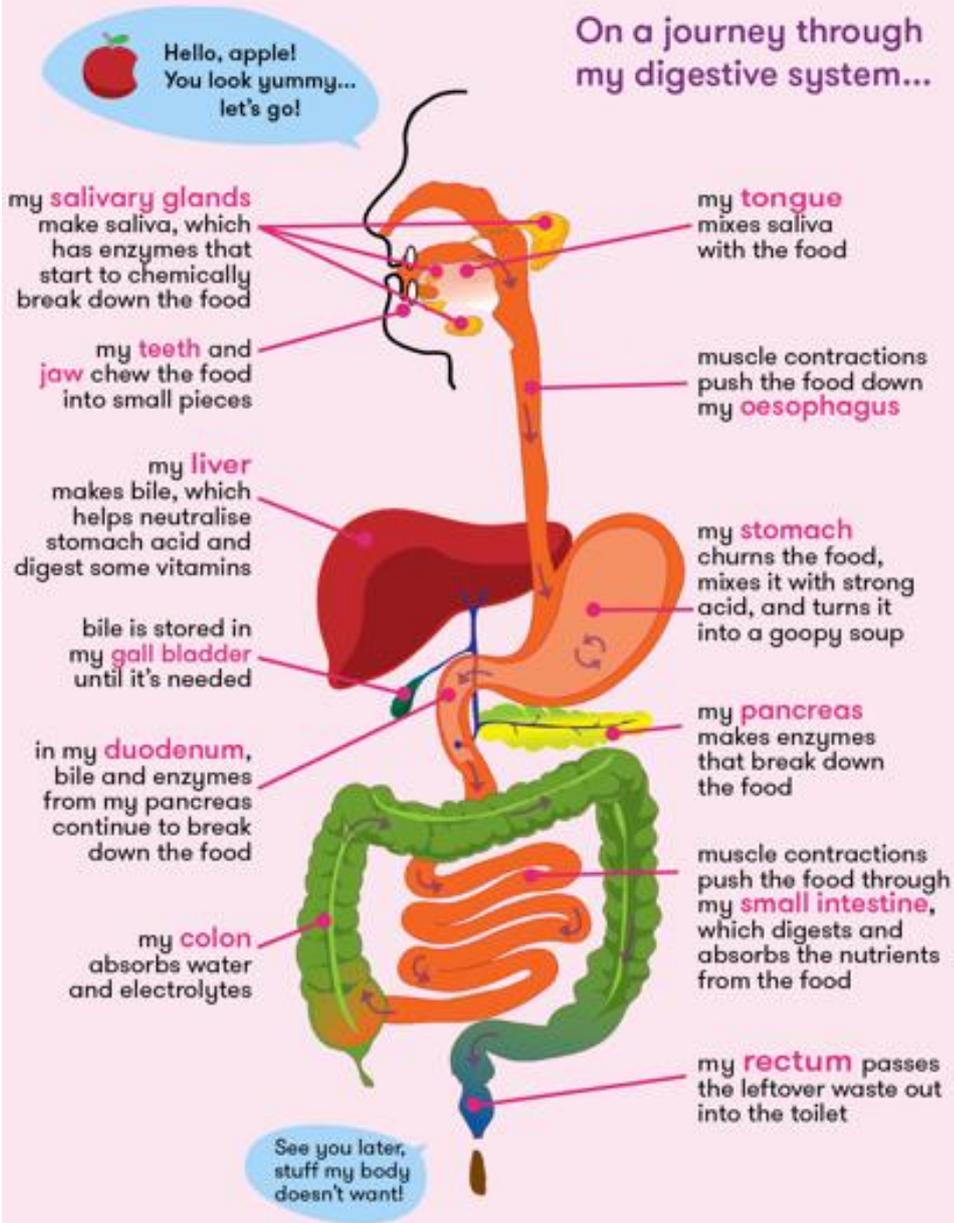
Year Group	Subject	Topic
4	Science	Teeth and Eating

The Big Picture

In this topic, children learn about digestion and different types of teeth, before moving on to explore deadly predators and their prey, in their exploration of food chains. They work scientifically throughout the topic, using enquiry, practical experiments and hands-on research to answer questions and investigate how we eat, why we eat and what we eat.

Enquiry Question

WHERE DOES MY FOOD GO AFTER I EAT IT?



What is Digestion

The food we eat has to be **broken down** into other substances that our bodies can use. This is called digestion.

Without digestion, we could not **absorb** food into our bodies and use it.

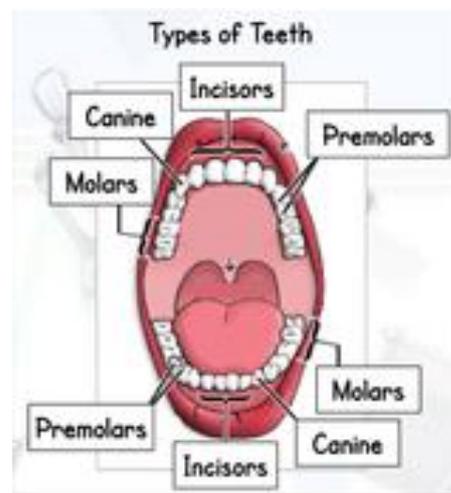
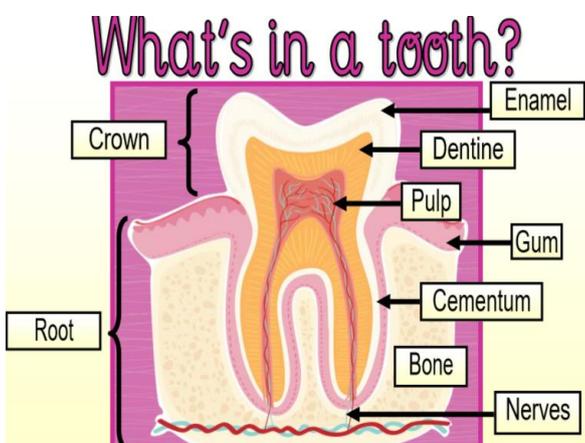
Digestion happens in the **digestive system**. This is a series of organs that break the food down so it can be absorbed into our bloodstream.

Here are the major stages of the digestive system:

- 1. Chewing** - Chewing is the first stage of the digestive system. When you chew your food it breaks up big pieces into little pieces that are easier to digest and swallow. Also, your saliva is more than just water. It has special [enzymes](#) in it that start to break down starchy food (potatoes, bread) while you chew.
- 2. Swallowing** - Swallowing may seem like a simple process to us. It just sort of happens. But food doesn't just fall down our throats into our stomach. First, our tongue helps to push food into the back of our throat. Then there are special throat muscles that force the food down into a long tube that leads to our stomach, called the esophagus. The food doesn't
- 3. Stomach** - The next stage is the stomach. Food hangs out in the stomach for around four hours. While the food sits there, more enzymes go to work on it, breaking down things like proteins that our bodies can use. The stomach kills a lot of bad bacteria as well, so we don't get sick.
- 4. Small Intestine** - The first part of the small intestine works with juices from the liver and pancreas to continue to break down our food. The second part is where the food gets absorbed from the intestine and into our body through the blood.
- 5. Large Intestine** - The last stage is the large intestine. Any food that the body doesn't need or can't use is sent to the large intestine and later leaves the body as waste.

The Liver and Pancreas

The liver and pancreas do a lot to help the digestive system along. Both work with the small intestine. The liver provides bile (stored in the gall bladder) that helps break up fat into smaller bits. The pancreas provides additional enzymes to help digest all sorts of food. The liver also processes the digested food from your blood before it gets sent to various places in your body to be used. just fall down the pipe, muscles push the food along until it gets to our stomach. At the same time all this is going on, a flap blocks off our windpipe making sure food doesn't go the wrong way. We call this "going down the wrong pipe" and it can make us choke. This flap is called the epiglottis and, fortunately for us, it works automatically.





SCIENTIFIC VOCABULARY

You can download a Word mat of essential vocabulary for this topic from *My Rising Stars*.

anus: the end of the digestive system where unwanted food leaves the body

canine: a tooth for gripping food, a pointy tooth

canines: the pointed, conical teeth next to the incisors

carnivores: animals such as lions whose main way of getting food is to kill and eat other animals, or to scavenge their dead flesh

decay: what happens when teeth aren't cared for

digestion: breaking down food

enamel: the hard covering of the tooth

energy: used to help us move, grow and repair our body

herbivore: animals such as cows that mainly eat plants

incisor: a tooth for biting food, at the front of the mouth

incisors: the flat, sharp-edged teeth in the front of the mouth, used for cutting and tearing food

large intestine: absorbs water and stores undigested food

molar: a tooth for grinding food at the back of the mouth

molars: large back teeth in humans and other mammals, used for chewing and grinding. Humans have 12 molars

mouth: where digestion starts and food gets into the body

nutrients: chemicals needed for growth, movement, repair and health in general

oesophagus: the scientific name for the food pipe

omnivores: animals, like you and me, that eat both plants and meat

small intestine: the thin tube where broken down food is absorbed

stomach: a bag of muscle used in the first part of digestion