St. John's Gosport Church of England Primary School - Science Knowledge Organiser

Year 4 Digestion - How does the body get nutrients from food into the bloodstream?

Substantive Knowledge

Animals need a variety of foods to help them grow and survive. The main food groups are:

- **Meat, dairy** and pulses provide **protein** for muscles.
- **Grains** and **root vegetables** provide **carbohydrates** for energy.
- **Fat** for **insulation** and energy.
- **Fruit** and **vegetables** for **minerals, vitamins and fibre.** These are essential to keep our bodies working well and protect us from illnesses.

Different animals require different foods to survive.

Animals get their food from plants and other animals. This can be shown in a **food chain** (from Year 2).

A food chain begins with a **producer**. This is often a green plant because plants can make their own food (from Year 2).

A living thing that eats other plants is called a **consumer** (from Year 2).

Humans require a balanced diet to remain **healthy** but healthy diets vary depending upon the type of activity that humans do.

Humans have 2 sets of teeth in their lifetimes.

Humans have three main types of teeth - incisors, canines and molars.

Incisors help to bit off and chew pieces of food.

Canines are used to teaching and ripping food.

Molars help to crush and grind food.

The **nutrients** in food have to get to every part of the body. The **blood** transports them.

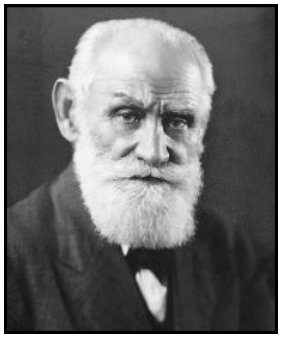
The role of **digestion** is to get the nutrients in food to dissolve in the blood,. If it doesn't dissolve, it can't enter the blood and be transported.

Disciplinary Knowledge

Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar	
Gathering, recording, classifying and presenting data in a variety of ways to help in answering	
Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further	
Using straightforward scientific evidence to answer questions or to support their findings.	
Setting up simple practical enquiries, comparative and fair tests.	
Making systematic and careful observations and taking accurate measurements using standard units, using a range of	

Significant Scientists

Ivan Pavlov (1849-1936)

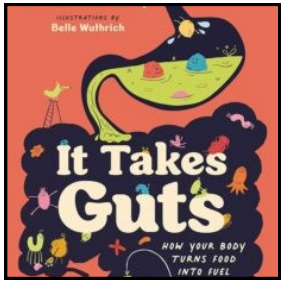


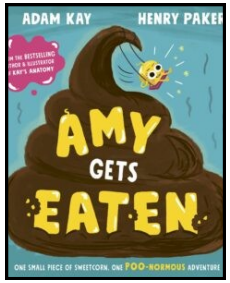
Ivan Pavlov was a Russian physiologist. He made a great impact on physiology by studying the mechanisms underlying the digestive system in mammals. He worked to unveil the secrets of the digestive system, but he also studied what signals triggered phenomena, such as the secretion of saliva.

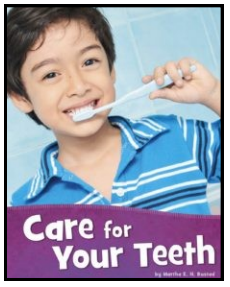
Charlotte Armah (1970-)

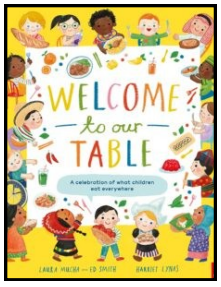
Charlotte Armah's is a nutritional biochemist. She leads experiments involving human volunteers to learn whether eating particular foods, especially broccoli, can protect us from diseases such as cardiovascular disease and cancer.

Interesting Books









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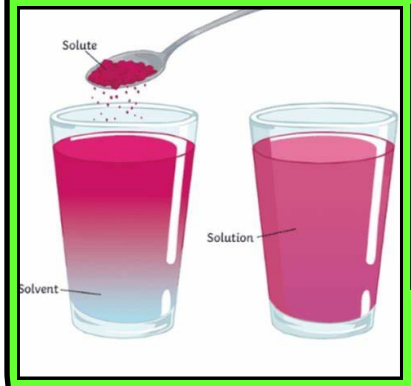
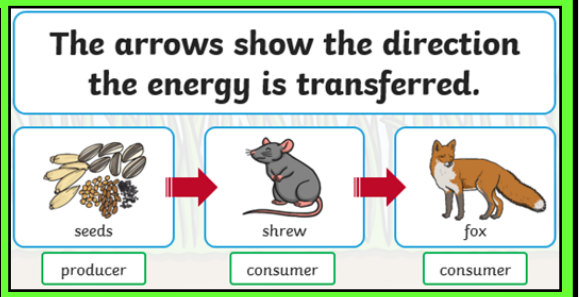
Year 4 Digestion - Digestion - How does the body get nutrients from food into the bloodstream?

Prior Knowledge





Teeth

Key Vocabulary	
meat	The flesh of an animals, usually a mammal or bird for eating.
dairy	Food that contains or is made from milk.
protein	A nutrient found in food used for growth and repair of the body.
grains	A small hard seed harvested from crops, e.g. cereals, used to make food.
root vegetable	An enlarged root of a plant that can be eaten, e.g. carrot, swede or beetroot.
carbohydrates	A nutrient in food that is used for energy in the body.
fat	A nutrient in food that is used for energy and insulation in the body.
insulation	To prevent heat lost from the body.
fruits	The sweet and fleshy part of a plant that contains seeds and eaten as food.
minerals	A nutrient needed by the body to carry out functions of life, found in food.
vitamins	A nutrient needed in small amounts for the proper function of life.
fibre	A component of food that isn't broken down by the body but used to help move food through the digestive system.
healthy	In good physical/mental condition.
digestion	The breaking down of food inside the body so nutrients can enter the blood.

Digestion