

Preston Primary School Knowledge Organiser

Topic: Science

Term: Autumn 1

Year: Unit 3

Duration: 6 Weeks

The Powerful Knowledge we will take away from this Learning Enquiry (what children will be learning):



Humans and animals need the right types and amount of nutrition. Humans and animals cannot create their own nutrition – it must come from the food they eat. Eating the right types of food in the correct portions keeps humans and animals healthy. There are lots of different types of vitamins and minerals contained in food.



We can classify animals by what they eat because different animals have different dietary requirements. Some are herbivores, some are omnivores, and some are carnivores. We will be grouping a variety of different animals based on their dietary needs.



Humans have different organs with different roles to play in keeping us healthy and our bodies functioning. Our lungs clean the air we breathe and supply oxygen to our blood. Blood then carries this oxygen to our organs and muscles.



We will be conducting our own experiments into lung capacity and how exercise impacts this. Fair testing is important because it means our results will be genuine and not impacted by any other factors.

Our Key Vocabulary:

Word	Meaning
Nutrition	There are lots of different kinds of vitamins and minerals and nutrition is the term that describes what is in our food.
Herbivore	Animals that only eat plants.
Omnivore	Animals that eat both plants and other animals.
Carnivore	Animals that only eat other animals.
Skeleton	The system of our bones. The skeleton provides support for the organs of the bodies of animals and humans.
Muscle	These are attached to bones and support the skeleton to move. They are essential for movement.
Diaphragm	The muscle that enables us to breathe. It sits underneath our rib cage.
Fair testing	Setting up an experiment where only one 'control' measure is changed. This means our results are correct.
Classify	To group together based on certain qualities.

Website links:

<https://www.bbc.co.uk/bitesize/topics/z9339j6>

Here are some games, quizzes, and videos to access to help you learn about skeletons and muscles.

[https://www.bbc.co.uk/bitesize/topics/z2ddmp3/articles/zpc](https://www.bbc.co.uk/bitesize/topics/z2ddmp3/articles/zpc<trwx)

Watch this video to find out more about fair testing before we design and undertake our own experiment.

What I already know:

Children have a basic understanding of nutrition from their learning in Key Stage One. They know that humans need a variety of different foods to be healthy. They know that exercise plays a vital role in keeping humans healthy. They can identify basic parts of the human body and say which part is associated with which of the five senses. They can identify some common animals as herbivores, omnivores, and carnivores. They have learnt about the habitats in which common animals can be found and may be able to link their habitat to the diet of that animal.

This is an example of the various foods that humans eat that can be classified into different groups based on the nutrition they offer us. You can see that fruit and vegetables and carbohydrates are the most important to support human nutrition. Other food types are also important as they provide protein and healthy fats.



The Human Skeleton



The human skeleton contains 206 bones (although we are born with more!). The skeleton system works together with our muscles to support our bodies and enable all of the different movements we are capable of making.

This is an example of a Venn Diagram. It is a visual way of classifying different objects or creatures. Here, we can see that there is overlap between carnivores and herbivores: these are the omnivores, and they eat both plants and meat. The overlap shows that they do not fit into either category of herbivore or carnivore.

