



Ocean Academy Poole

an Aspirations Academy

Self-Worth | Engagement | Purpose

Learning Journey Map

Year: 3

Term: Spring 1

Subject: Science

Topic: Animals, including humans

Driving Question: See Stone Age

Power Skill: See Stone Age

National Curriculum Learning Objectives

- 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
- identify that humans and some other animals have skeletons and muscles for support, protection and movement

Key Vocabulary

humans	animals	skeleton	muscles	bones
organs	healthy	digestion	nutrition	carbohydrates
proteins	fats	fibre	vitamins	minerals

Key Learning

Nutrition

- All animals need certain basics to survive: air, water, food and shelter.
- Humans, like all other animals, cannot make their own food like plants do. Instead we get our food by eating plants or other animals.
- Our bodies need a variety of nutrients in order to function properly, including fats, proteins, vitamins and minerals.
- The food that we eat can be divided into different groups. There are a few different ways of doing this, but one way is as follows: starchy foods (bread/rice/pasta/potatoes), milk and dairy, fat and sugar, protein (meat, fish, beans, eggs) and fruit and vegetables.
- A balanced diet is one that contains the right nutrients in the right quantities, and should include carbohydrates, proteins, fats, minerals and vitamins.
- Carbohydrates give us energy. They are found in foods such as bread, potatoes and pasta.
- Proteins help our bodies to repair themselves. They are found in foods such as fish, meat, beans, nuts, seeds, eggs and cheese.
- Fats help store energy for our bodies. They are found in foods such as butter, cheese, nuts and fried food.
- Fibre is important for helping us digest our foods. It's found in fruit and vegetables.



Thinking Point

Why do animals eat different things?



Common misconception:

Some children may believe that the only reason we eat food is to give us energy. Our bodies also need food in order to obtain a number of important vitamins and minerals. Vitamin D is essential for strong bones and vitamin C is important in protecting cells and keeping them healthy. Iron is an essential mineral that helps to make red blood cells, which carry oxygen around the body. If we have too little iron in our diet we can become anaemic.

Thinking Point

What food helps to keep us healthy?



Explore and Investigate

Research what nutrients are found in different foods.

Resources:

Science encyclopedia / textbooks / internet

Key Learning

Skeletons and muscles

- The human body gets its structure and shape from its skeleton.
- Humans are born with over 200 bones and they change and grow as we get older and our bodies develop.
- The skeleton provides the vital framework for supporting our body and protecting the organs inside. For example, our skull protects our brain, our ribs protect our heart and lungs.
- Maintaining the health of our bones is important to avoid them weakening and being more susceptible to breaking.
- Eating foods with lots of calcium and vitamin D, as well as getting plenty of exercise is important for good bone health.
- A healthy diet and exercise are vital for maintaining good muscle health.
- The bones in our skeleton are tough and strong, because our skeleton must protect the soft and delicate organs in our body.
- We have muscles to help us move which are attached to our bones by tendons.
- Muscles work in pairs: as one muscle contracts, the other relaxes. This is how they move our body parts.



Thinking Point

What would happen if our bones were bendy?



Common misconception:

Children often have difficulty in accurately locating their internal organs and drawing them on a diagram. Many will think their stomach is in their abdomen, as that is often where they feel the pain when they have a “tummy ache”. Most children will draw the heart on the far left of their body rather than slightly to the left of the central line. Children are likely to know about major organs such as the heart, brain and stomach, because these form part of their everyday language.

They will probably be aware of the muscles in their arms and legs, as they use these often, but they might not realise that muscles are found all around the body. Some children may think that muscles are only used for actions like walking or throwing. They probably won't think of the heart or the tongue as a muscle. Children often think that muscles push rather than pull, and will probably not be aware that muscles have to work in pairs to allow movement.

Children may not realise that bones are living tissue. They may not make the connection between growing taller and their bones getting bigger.