

Topic: Animals including humans

What should I already know?

- That vertebrates are animals with a backbone and there are five types of vertebrate (mammals, fish, reptiles, amphibians, birds).
- Some animals give birth to live young, but others lay eggs. Animals go through a series of changes known as a life cycle.
- All animals need water, air and food to survive.
- The basic parts of the human body and which sense they use.
- To stay healthy humans need to eat a balanced diet and exercise to stay healthy.

At the end of the unit, I will be able to:

- Know that all animals, including humans, need the right nutrition. All food contains a range of different nutrients that the body needs to stay healthy.
- That food labels contain nutritional information.
- Animals, including humans, are unable to make their own food so get it from what they eat. Unlike plants, which make their own food, animals and humans need to eat to make sure they get the nutrients they need to live and grow. Humans and some other animals have skeletons and muscles that help support and protect their body. Bones form the skeleton inside our body.
- The skeleton helps to support our body and to protect the organs inside our body.

Phase: Lower KS2

Key Knowledge

Human body - To keep your body fit and healthy you need a balanced diet using all of the food groups.
Carbohydrates – Main source of energy for our bodies (rice, potatoes, pasta and bread).
Protein – Repairs and builds muscles, organs and immunity (fish, meat, eggs and cheese).
Sugar and Fats – Stored for energy and creates a layer of fat to keep us warm. Should not have too much of these (chocolate, sweets, butter, oil, cream).
Vitamins and Minerals – Keeps us growing and fighting infections (fruit and vegetables).

Balanced diet - Unlike plants, humans do not make their own energy so they need to eat to get energy. In order to be healthy we need to eat a balanced diet with more of some things and less of others.



Animals – Different animals need a different percentage of each food group for different reasons.

Strand: Science (Biology)

We are MANOR! As Scientists we will ...

Manners

Develop a respect and understanding for the natural world, its people, animals and plants. Share ideas, celebrate good work, value others' contributions, or discussions and debates.

Aspiration

Learn by being challenged in a series of well-designed scientific enquiry and investigation tasks linked to meaningful contexts and develop a knowledge of scientists and careers to broaden our horizons. Be aspirational in developing scientific knowledge and conceptual understanding through biology, chemistry and physics.

Nurture

To recognise that we live in a wonderful world made up of many different people and living things. We will develop an appreciation and respect for the diverse world and environment in which we live, showing care and compassion for the environment around us.

Open-Mindedness

We will be open-minded so that we can conduct experiments or observe what is happening in order to see patterns that might emerge or to gain new knowledge. We will use maturity and curiosity when learning to wonder why something behaves a certain way.

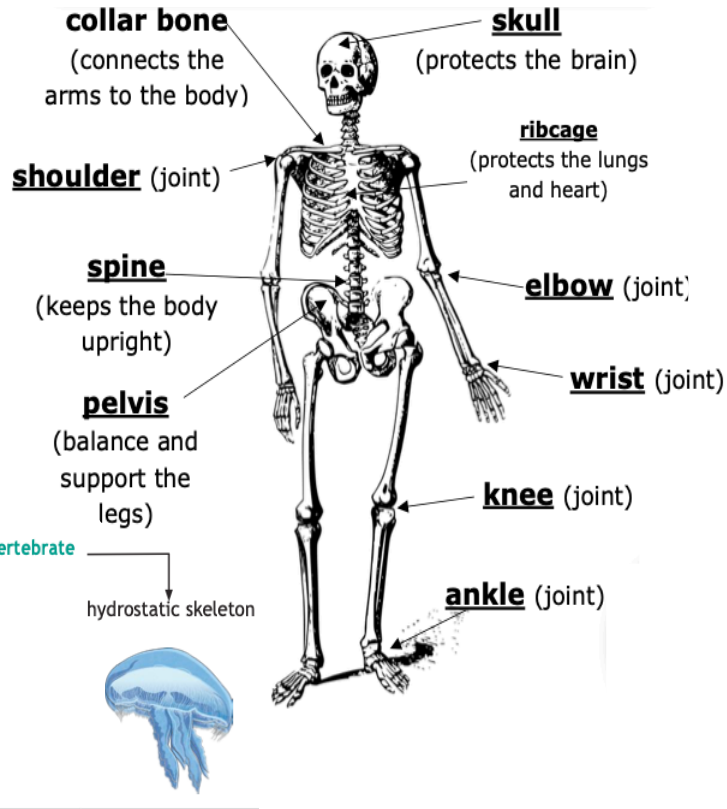
Resilience

Engage confidently with the science curriculum and learn that anything is possible and failure is not something to fear but to learn from. We will develop our scientific enquiry and investigation skills with patience and care, repeating investigations to check the accuracy of results.

Skeletons and Muscles

Skeletons – Skeletons do three important jobs :

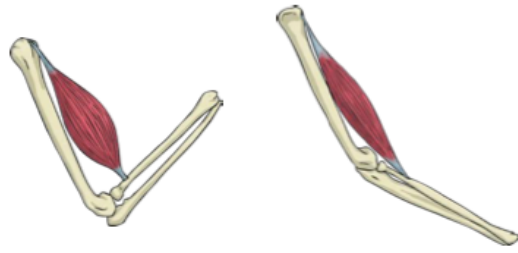
- Protect the organs inside the body
- Allow movement
- Support the body and stop it from falling to the floor



Skeletons move because bones are attached to muscles. Skeletal muscles work in pairs to move the bones they are attached to by taking turns to contract (get shorter) and relax (get longer)

Useful links:

<http://www.sciencekids.co.nz/sciencefacts/humanbody/skeletonbones.html>
<https://www.dkfindout.com/uk/animals-and-nature/what-is-living-thing/nutrition/>
<https://www.bbc.co.uk/bitesize/topics/z9339j6>



Key Knowledge and vocabulary

muscles	Inside part of your body that connects 2 bones and is used when you move.
nutrients	Important parts of food that the body needs to grow. Nutrients are absorbed by the body during digestion.
bones	Hard parts inside the body which form the skeleton.
balanced diet	Variety of food featuring all the different food groups.
joints	Where two bones of the skeleton meet and join together.
Carbohydrates	Nutrient found in food like starchy vegetables, grains, rice, breads and cereals. There are 2 main types of carbohydrate – sugars and starches.
fat	Nutrient found in food. The body stores fat as a fuel source. Too much of the wrong kind of fat can be unhealthy.
energy	Strength to be able to move and grow.
protect	To keep something safe.
organs	A part of your body that has a particular purpose.
skeleton	All of the bones inside your body.
saturated fats	Types of fats, considered to be less healthy, that should only be eaten in small amounts.
unsaturated fats	Fats that give you energy, vitamins and minerals.
exercise	Activity where you move your body energetically to stay fit and healthy.
Vitamins	Substances found in foods to keep you healthy.

Animals and Humans Quiz

1.What is a skeleton made up of ?

2.What is the scientific name for the head bone?

3.What are the two different types of fats?

4.Why do animals need food?

5. Name 5 bones in the human body?