

























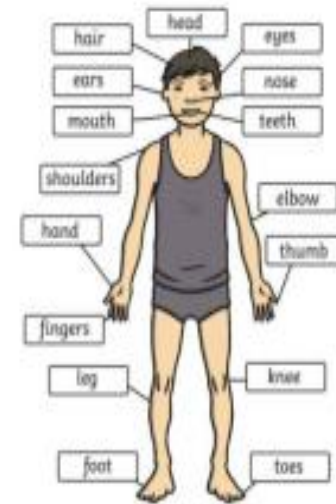
Animals including humans – Year 1

Fish		
goldfish 		cod 
shark 		salmon 
Reptiles		
snake 	lizard 	crocodile 
Birds		
robin 		owl 
sparrow 		woodpecker 
Amphibians		
frog 	toad 	newt 
Mammals		
cat 		dog 
horse 		sheep 

Key vocabulary to describe the features of different animals	
head	body
eyes	ears
mouth	teeth
leg	tail
wing	claw
fin	scales
feathers	fur
beak	paws
hooves	hair

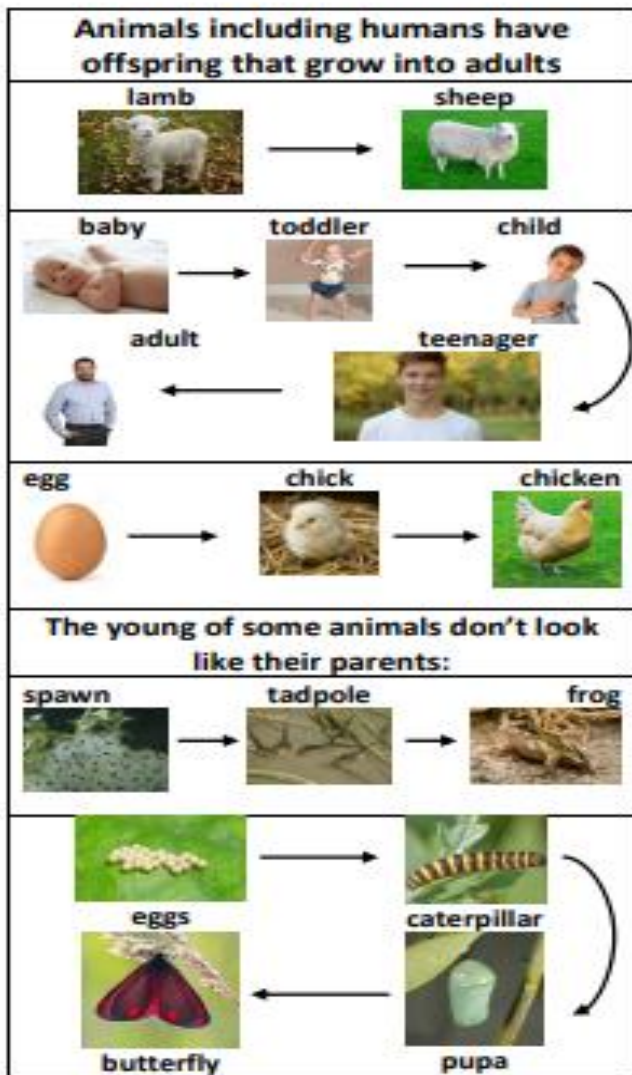
<p>Carnivores These are animals that eat other animals.</p>		
<p>Herbivores These are animals that only eat plants.</p>		
<p>Omnivores These are animals that eat plants and other animals.</p>		

Parts of the human body



The 5 senses

Sense	Part of the body it is linked to	
touch		fingers, hands, feet etc
sight		eyes
smell		nose
taste		tongue
hear		ears



Animals including humans – Year 2

Key vocabulary	
offspring	A person's children or an animal's young.
reproduction	The process where new animals, humans or plants are made.
growth	The process of getting bigger.
exercise	This is when you move your body physically to get fit and remain healthy. Our heartbeat increases when we exercise.
breathing	This is what we do to get oxygen in our bodies.
hygiene	Keeping clean to prevent illnesses and the spread of disease.
germs	A very small thing that can cause diseases. We cannot see them with our eyes.
disease	An illness which affects people, animals or plants.

Significant scientist	
Dr Ernest Madu (born 1960)	Dr Ernest Madu is a cardiologist. His work focuses on providing affordable healthcare in low-resource nations.
	

All animals including humans have these

basic needs to survive:






The Eatwell plate

This shows the different food groups that make up a healthy diet.



Animals including humans – Year 3

Key vocabulary	
nutrition	Food necessary for health and growth.
nutrients	Useful substances that help animals and plants grow.
carbohydrates	These are the foods that give us energy. They are found in sugary and starchy foods. 
proteins	These are important so the body can grow, repair and build muscle. 
vitamins and minerals	Substances found in foods which keep us healthy. These are found in fruit and vegetables. 
fibre	This lets food pass quickly through your body. It helps keep your digestive system in good working order.
skeleton	This supports and protects the body, allowing it to move.
bones	The hard parts inside your body which form your skeleton.
muscles	These are attached to bones and help us move.
joints	The place where 2 bones meet.

Significant scientist

Wilhelm Conrad Röntgen
(1845-1923)



Wilhelm Röntgen was a German physicist who discovered X-rays in 1895. He was awarded many honours and won the Nobel Prize for physics in 1901.

Animals need to eat food to get the nutrients they need.

What type of foods should we eat to stay healthy?



One piece of food can provide a range of nutrients.



The skull protects our brain.

The bones in our legs support us and help us stand.

The bones and muscles in our legs help us move.



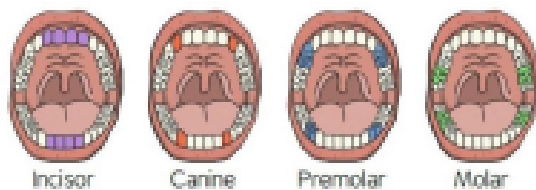
A cat skeleton

Key vocabulary	
digestive system	The organs in your body involved in the digestion of food.
digestion	This is the way the body breaks down food so the body can absorb it.
herbivore	Animals that only eat plants.
carnivore	Animals that eat other animals.
omnivore	Animals that eat both plants and animals.
producer	All green plants can make food in their leaves. They are the only producers of food.
consumer	Animals that eat plants in a food chain.
predator	Animals that catch and eat other animals.
prey	Animals that are hunted and eaten by predators.
food chain	Animals eat plants or other animals. The way this happens is shown in a food chain.


Teeth

Humans have 4 types of teeth:

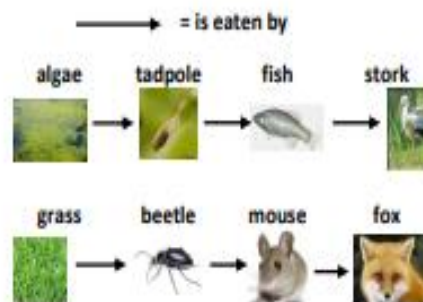
- **incisors** – used for cutting
- **canines** – rip and tear food
- **molars and premolars** – for grinding and chewing food



Animals including humans – Year 4

Significant scientist	
<p>William Beaumont (1785-1853)</p> 	<p>William Beaumont was a surgeon in the U.S. Army. He carried out lots of experiments and research on human digestion. As a result, he provided the world with new information about the digestive process in living human beings.</p>

Food chains



Lion skull



Lions are carnivores. They have big canine teeth to help them catch their prey.



The main parts of the digestive system:

- Food enters the body through the **mouth**
- The **teeth** start to break the food down. **Saliva** is added and the tongue rolls the food into a ball.
- After swallowing, the food passes down the **oesophagus** to the stomach
- In the **stomach** the food is broken down further by being churned around and some chemicals are added.
- Food passes into the **small intestine**. Here **nutrients** are removed from the food to be used elsewhere in the body.
- The rest passes into the **large intestine** where **water** is removed to be used elsewhere in the body.
- What is left is then stored in the **rectum** until it leaves the body through the **anus** when you go to the toilet.


Key vocabulary	
puberty	The time when your body begins to develop and change as you become an adult.
sexual reproduction	The process where a living thing creates another organism like itself. In humans, a sperm cell from a male fertilises an egg from a female to produce a baby.
menstruation (period)	When a woman has a period, she loses a small amount of blood each month.
sperm	Single cells produced by male animals.
egg	A cell that is produced in the body of female animals.
foetus	An animal or human being in its later stages of development before it is born.
gestation	The length of time a mammal carries her offspring inside her body before giving birth.
life expectancy	The length of time that an animal is normally likely to live.

Mammal	Gestation period in days
Cat	63
Chimpanzee	240
Lion	358
Human	266
Rabbit	31
Squirrel	44
African elephant	650
Whale	360
Horse	336
Polar bear	241
Seahorse	435
Moose	21
Rhinoceros	480
Hamster	35
Dog	61
Canal	400

The gestation period of different animals. Larger animals usually have longer gestation than smaller animals.

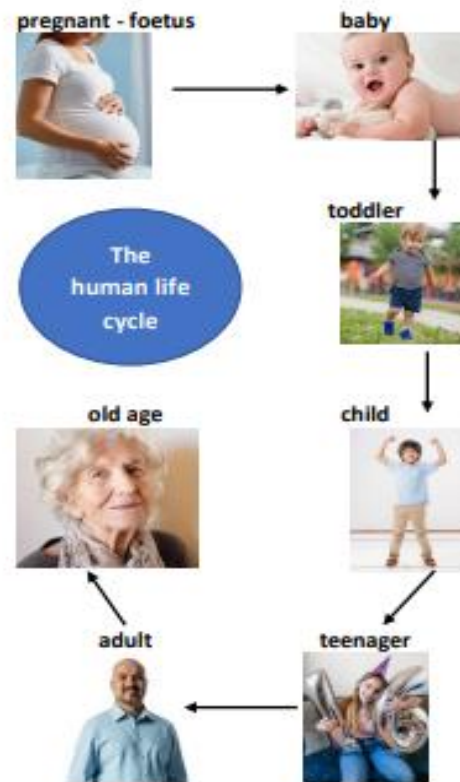
Animals including humans – Year 5

This topic should be taught alongside PSHE with careful consideration of the school's Sex and Relationship Education Policy.

Significant scientist	
	Sarah Fowler (OBE) is a marine biologist. She is the principal scientist of the Save Our Seas Foundation. Her research has identified the global threat to sharks and she shares strategies of how we can protect them.

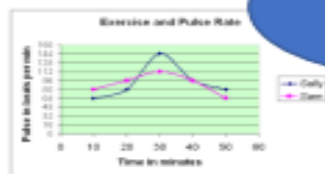
Puberty

<ul style="list-style-type: none"> - Usually begins between the ages of 8-14 and the process can take up to 4 years. - During puberty the bodies of boys and girls begin to change physically. - Boys and girls can experience some mood changes during puberty. 	
Changes for girls	<ul style="list-style-type: none"> - hair starts to grow on their bodies - breasts develop and hips widen - periods start
Changes for boys	<ul style="list-style-type: none"> - hair starts to grow on their bodies and faces - develop a deeper voice - testicles start to produce sperm




Humans go through a variety of changes as we grow and develop from birth through to old age.

Key vocabulary	
heart	The heart pumps blood around your body.
pulse	Each time the heart beats it can be felt as a pulse in the arteries. Typically, in the wrist and neck.
blood	The red liquid pumped around the body by the heart. It transports oxygen, nutrients and water to all the parts of the body.
blood vessels	The narrow tubes which our blood flows through including the arteries, veins and capillaries.
lungs	Two organs situated in the ribcage that fill with air when you breathe in. They remove carbon dioxide from blood and add oxygen.
circulatory system	This circulates blood through the body. It consists of the heart, blood and blood vessels.
diet	The sort of food animals or humans regularly eat.
exercise	Activity that requires physical effort, carried out to sustain or improve health and fitness.
drugs	A medicine or other substance that has an effect in a person's body.
lifestyle	The way in which a person lives.



Our pulse rate increases when we do exercise.

Animals including humans – Year 6

Significant scientist	
William Harvey (1578-1657) 	William Harvey was an English physician and the first person to correctly describe blood's circulation in the body. He showed that arteries and veins form a complete circuit.

Healthy bodies

Diet, exercise, drugs and other lifestyle choices have an impact on how our bodies function. This can affect how well our heart and lungs work and how fit and well we feel.

Some choices such as smoking, drinking alcohol and obesity can be harmful to our health:

Smoking

Can cause shortness of breath, heart and lung disease.

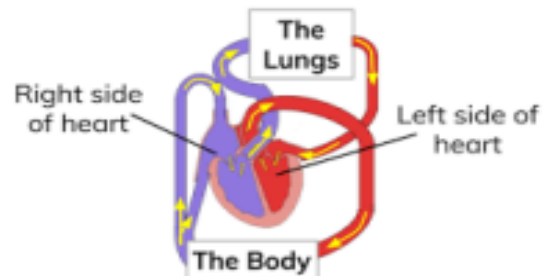
Alcohol

Too much alcohol can damage the liver, heart and stomach.

Why is exercise so important?

Exercise can increase fitness, make you feel physically and mentally healthier, strengthen your heart and improve your lung function.

The human circulatory system



- The **heart** pumps **blood** in the **blood vessels** to the **lungs** where oxygen goes into the **blood** and carbon dioxide is removed.
- The **blood** goes back to the **heart**.
- It is then pumped around the body so that water, nutrients and oxygen are transported in the **blood** to the muscles and all the other parts of the body where they are needed. As all these are used, they produce carbon dioxide and other waste products.
- Carbon dioxide is carried by the **blood** in **blood vessels** back to the **heart**.
- The cycle starts again as the carbon dioxide is then transported back to the lungs to be removed from the body.

The circulatory system transports nutrients and water in the blood to all the parts of the body that need them. These nutrients provide us with energy.