

## Topic: Animals including Humans

## Phase: Lower KS2

## Strand: Science (Biology)

### What should I already know?

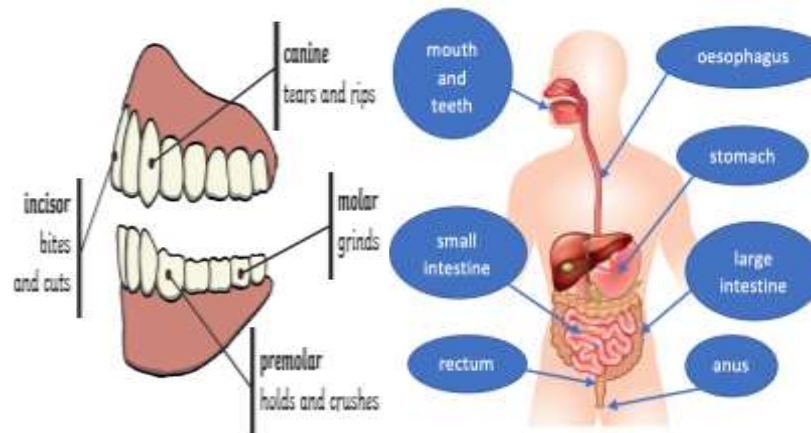
That animals, including humans, have offspring which grow into adults. How to find out about and describe the basic needs of animals, including humans, for survival (water, food and air). How to describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 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. That humans and some other animals have skeletons and muscles for support, protection and movement. That common animals can be grouped into carnivores, herbivores and omnivores. That simple food chains describe how animals obtain their food.

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

Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey. Identify the main body parts associated with the digestive system, for example, mouth, tongue, teeth, oesophagus, stomach and small and large intestine and explore questions that help us to understand their special functions. Compare the teeth of carnivores and herbivores and suggesting reasons for differences. Find out what damages teeth and how to look after them.

Scientific Method: planning an investigation					
Variables	Question	Prediction	Equipment	Method	Risks
Choose your independent and dependent variables (what you will change) and your dependent variable (what you will measure).	Create your question (what is the effect of changing the independent variable on the dependent variable).	Make a prediction of what you think will happen based on what you already know.	List all of the equipment you will use.	Describe the method using numbered bullet points.	Identify any risks and ways to ensure safety.

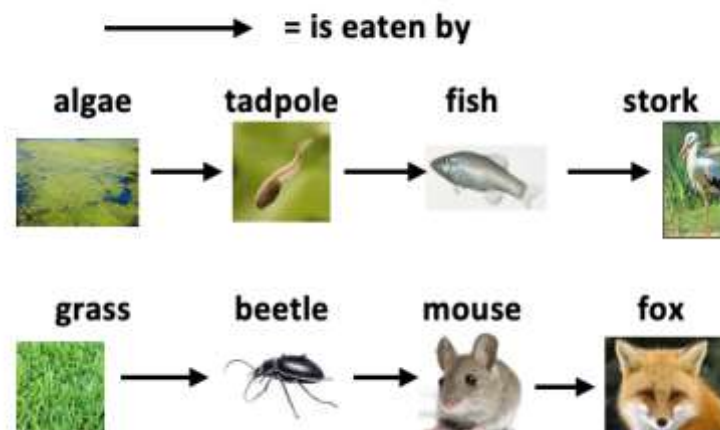
### Diagrams



### Human teeth and their functions

### The main parts of the digestive system

### Food chains



### 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 our curiosity and learn 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.



Animals including Humans Quiz		Key information	Key Knowledge and vocabulary	
1) Can you name two different types of teeth?		<p><b><u>Focus Scientist</u></b></p> <p><b>Ivan Pavlov (1849-1936)</b> Ivan Pavlov worked to unveil the secrets of the digestive system, but he also studied what signals triggered phenomena, such as the secretion of saliva through his famous Pavlov's dog experiments.</p> <p><b><u>Teeth</u></b></p> <p>The teeth of an animal are designed to eat different foods depending on the diet of the animal. The types of teeth differ depending on if the animal is a <b>herbivore</b>, a <b>carnivore</b> and an <b>omnivore</b>.</p> <p><b><u>When do our teeth grow?</u></b></p> <p>Birth - 20 baby teeth. 7 years - Baby teeth fall out and adult teeth push through. 21years - 32 adult teeth.</p> <p><b><u>Food chains</u></b></p> <p>When part of the food chain is removed, this has an impact on the other parts of the food chain. The number of some species will increase, while the population of others will decrease. This can have a direct impact on the survival of the species. The population of tertiary consumers depends on healthy populations of producers, primary and secondary consumers.</p>	digest	Break down food so it can be used by the body.
2) What did Ivan Pavlov research?			The digestive system	The organs in your body involved in the digestion of food.
3) What is a food chain?			oesophagus	A muscular tube which moves food from the mouth to the stomach.
4) Where does food enter the human body?			stomach	An organ in the digestive system where food is broken down with stomach acid and by being churned around.
5) Are humans herbivores, omnivores or carnivores?			small intestine	Part of the intestine where nutrients are absorbed into the body.
			large intestine	Part of the intestine where water is absorbed from remaining waste food. Stools are formed in the large intestine.
			rectum	Part of the digestive system where stools are stored before leaving the body through the anus.
			herbivore	An animal that eats plants.
			carnivore	An animal that feeds on other animals.
			omnivore	An animal that eats plants and animals.
			producer	A plant that produces its own food.
			consumer	Animals that eat plants in a food chain.
			predator	An animal that hunts and eats other animals.
			prey	An animal that gets hunted and eaten by another animal.
			food chain	Animals eat plants or other animals. The way this happens is shown in a food chain.
			incisors	Teeth used for cutting food.
			canines	Teeth used to rip and tear food.
			premolars	Teeth used to crush food.
			molars	Teeth used to grind food.