

Year 4 Science Curriculum

Working scientifically links Rubric/PCMD opp. Key Vocabulary

Animals Including Humans

What's the big picture? Recap knowledge and vocabulary from year 3 - knowledge and retrieval. *"I know how to ask simple scientific questions"*

Prior learning:

Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans)

Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). (Y2 - Animals, including humans)

Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2 - Animals, including humans)

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. (Y3 - Animals, including humans)

National Curriculum Principles	Objectives	Knowledge and key Vocabulary	Reading opportunities	Technology
Describe the simple functions of the basic parts of the digestive system in humans	Identify and name parts of the digestive system I know the functions of the organs in the human digestive system	What is the digestive system ? Identify and name parts of the digestive system - mouth, tongue, saliva, oesophagus, stomach, large intestine, small intestine, rectum, anus - children to label Research functions of parts of digestive system. Model how the digestive system works using tights and weetabix. Ingested, Faeces, excretion,	Human Body Odyssey (Werner Holzwarth) Crocodiles Don't Brush Their Teeth (Colin Fancy)	children to record on ipads
Identify the different types of teeth in humans and	I can identify and know the different types	Children to look at their teeth - how many teeth do they have? Identify similarities and differences between different teeth. Label different types of teeth - incisor,	Wolves (Emily Gravett) Demon Dentist -	use camera on iPad to look at teeth

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<p>their simple functions</p>	<p>of teeth in humans</p> <p>I know the functions of different human teeth</p>	<p>canine, bite, premolar, molar</p> <p>Explore eating different types of food to identify which teeth are used for cutting, tearing and chewing.</p> <p>Classify teeth according to shape/function.</p> <p>How do we look after our teeth - enamel, plaque, decay</p>	<p>David Walliams</p> <p>Horrid Henry Tricks the Tooth Fairy - Francesca Simon</p> <p>The Story of the Little Mole Who Knew it was None of His Business by Werner Holzwarth</p>	
<p>Construct and interpret a variety of food chains, identifying producers, predators and prey</p>	<p>I can use food chains to identify producers, predators and prey.</p> <p>I can construct food chains to identify producers, predators and prey</p>	<p>What is a food chain? Identify producer, predator and prey</p> <p>Children to create their own food chains - what happens when you change the numbers of predators and prey - role play</p> <p>Explore owl pellets to find out what an owl eats. ID bones found using classification key.</p> <p>Classify animals as herbivores, carnivores and omnivores.</p> <p>Explore pictures of animal teeth and skulls to ID if animal is herbivore, omnivore or carnivore</p>		<p>children to record on ipads</p>

Famous scientists

Joseph Lister - discovered first antiseptics

Washington and Lucius Sheffield - toothpaste in a tube

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Common misconceptions

Some children may think:

- arrows in a food chains mean ‘eats’
- the death of one of the parts of a food chain or web has no, or limited, consequences on the rest of the chain
- there is always plenty of food for wild animals
- your stomach is where your belly button is
- food is digested only in the stomach
- when you have a meal, your food goes down one tube and your drink down another
- the food you eat becomes “poo” and the drink becomes “wee”.

Enquiry ideas

<u>Comparative tests</u>	<u>Identify and classify</u>	<u>Observations over time</u>	<u>Pattern seeking</u>	<u>Research</u>
Compare the effects of different drinks on eggshells (our teeth)	What are the names of all the organs involved in the digestive system?	How does an eggshell change when it is left in cola?	Are foods that are high in energy always high in sugar?	How does a dentist fix broken teeth?
	How can we organise teeth into groups?			