

# Science - Animals, including humans

EYFS CYCLE 1 (one year cycle)	EYFS CYCLE 2 (one year cycle)	KS1 CYCLE 2 (both covered in cycle 2) heavy topic allows for careful and quality time and to embed. <b>Autumn 1 Spring 1</b>		KS2 CYCLE 1 <b>Spring</b>	KS2 CYCLE 2 <b>Summer 1</b>
<u>Impact statements</u>					
EYFS	EYFS	Key Stage 1 (Y1/2)		Key Stage 2 (Y3/4)	
<p>Recognise some environments that are different to the one in which they live.</p> <p>*Explore the natural world around them.</p> <p>* Describe what they see, hear and feel whilst outside</p> <p>* Identify, compare, classify and group a variety of places, objects, materials and living things.</p> <p>*Talk about changes, including the seasons.</p> <p>* Talk about their immediate environment and compare it to other environments.</p>		<p>N.C yr1</p> <p>*Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>* Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>* Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</p> <p>* Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</p>	<p>NC yr2</p> <p>*Notice that animals, including humans, have offspring which grow into adults.</p> <p>* Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>* Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>	<p>N.C yr4</p> <p>Describe the simple functions of the basic parts of the digestive system in humans.</p> <p>* Identify the different types of teeth in humans and their simple functions.</p> <p>*Construct and interpret a variety of food chains, identifying producers, predators and prey.</p>	<p>N.C yr3</p> <p>*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.</p> <p>* Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>
<p><b>Explicit reference to:</b></p> <p>-Animals vary in many ways having different structures e.g. wings, tails, ears etc.</p> <p>Humans have five senses - sight, touch, taste, hearing and smelling. These senses are linked to particular parts of the body.</p>		<p><b>Explicit reference to include:</b></p> <p>-Animals vary in many ways having different structures e.g. wings, tails, ears etc. They also have different skin coverings e.g. scales, feathers, hair. These key features can be used to identify them.</p> <p>-Animals eat certain things - some eat other animals, some eat plants, some eat both plants and animals. Humans have key parts in common, but these vary from person to person. Humans (and other animals) find out about the world using their senses. Humans have five senses - sight, touch, taste, hearing and smelling. These senses are linked to particular parts of the body.</p>	<p><b>Explicit reference to include:</b> Animals, including humans, have offspring which grow into adults.</p> <p>- In humans and some animals, these offspring will be young, such as babies or kittens, that grow into adults.</p> <p>-</p> <p>- In other animals, such as chickens or insects, there may be eggs laid that hatch to young or other stages which then grow to adults. The young of some animals do not look like their parents e.g. tadpoles.</p> <p>-All animals, including</p>	<p><b>Explicit reference to include:</b></p> <p>*Food enters the body through the mouth. Digestion starts when the teeth start to break the food down. Saliva is added and the tongue rolls the food into a ball. The food is swallowed and passes down the oesophagus to the stomach. Here the food is broken down further by being churned around and other chemicals are added. The food passes into the small intestine. Here nutrients are removed from the food and leave the digestive system to be used elsewhere in the body. The rest of the food then passes into the large intestine. Here the water</p>	<p><b>Explicit reference to include:</b> Animals, unlike plants which can make their own food, need to eat in order to get the nutrients they need. Food contains a range of different nutrients - carbohydrates (including sugars), protein, vitamins, minerals, fats, sugars, water - and fibre that are needed by the body to stay healthy. A piece of food will often provide a range of nutrients. Humans, and some other animals, have skeletons and muscles which help</p>

<p><b>Common misconceptions-</b>  - animals are furry and have four legs - a bee is not an animal because it is an insect -animals adapt to their surroundings, e.g. a brown bear turns white and becomes a polar bear - animals living in the soil breathe by coming to the surface - dragons and other mythical creatures are real animals.</p>		<p><b>Common misconceptions:</b>  - only four-legged mammals, such as pets, are animals - humans are not animals - insects are not animals - all 'bugs' or 'creepy crawlies', such as spiders, are part of the insect group - amphibians and reptiles are the same.</p> <p>It is important to ensure that pupils understand that humans are animals.</p>		<p>humans, have the basic needs of feeding, drinking and breathing that must be satisfied in order to survive. To grow into healthy adults, they also need the right amounts and types of food and exercise.  - Good hygiene is also important in preventing infections and illnesses.</p> <p><b>Common misconceptions:</b>  an animal's habitat is like its 'home'  - all animals that live in the sea are fish -respiration is breathing -breathing is respiration.</p>		<p>is removed for use 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.  *Humans have four types of teeth: incisors for cutting; canines for tearing; and molars and premolars for grinding (chewing).  <b>Common misconceptions:</b>  -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".</p>		<p>them move and provide protection and support.</p> <p><b>Common misconceptions:</b>  -certain whole food groups like fats are 'bad' for you  - certain specific foods, like cheese are also 'bad' for you  -diet and fruit drinks are 'good' for you  - snakes are similar to worms, so they must also be invertebrates  - invertebrates have no form of skeleton.</p>			
<p><b>Tier 3 Vocab: EYFS</b></p>		<p><b>Tier 3 Vocab: EYFS</b></p>		<p><b>Tier 3 Vocabulary: Year 1/2</b></p>		<p><b>Tier 3 vocabulary: Year 3/4</b></p>					
<p>names of animals, live, on land, in water, jungle, desert, North Pole, South Pole, sea, hot, cold, wet, dry, snow, ice, hair (e.g. black, brown, dark, light, blonde, ginger, grey, white, long, short, straight, curly), eyes (e.g. blue, brown, green, grey), skin (e.g. black, brown, white),</p>		<p>names of animals, live, on land, in water, jungle, desert, North Pole, South Pole, sea, hot, cold, wet, dry, snow, ice, hair (e.g. black, brown, dark, light, blonde, ginger, grey, white, long, short, straight, curly), eyes (e.g. blue, brown, green, grey), skin (e.g. black, brown, white),</p>		<p>head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, names of animals experienced first-hand from each vertebrate group, parts of the human body including those within the school's RSE policy, senses, touch, see, smell, taste, hear, fingers, skin, eyes, nose, ears, tongue</p>		<p>offspring, reproduction, growth, baby, toddler, child, teenager, adult, old person, names of animals and their babies (e.g. chick/chicken, kitten/cat, caterpillar/butterfly), survive, survival, water, food, air, exercise, heartbeat, breathing, hygiene, germs, disease, food types (e.g. meat, fish, vegetables, bread, rice, pasta, dairy)</p>		<p>digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, large intestine, rectum, anus, incisor, canine, molar, premolar, herbivore, carnivore, omnivore, producer, predator, prey, food chain</p>		<p>Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, joints, support, protect, move, skull, ribs, spine</p>	

grey), skin (e.g. black, brown, white), big/tall, small/short, bigger/smaller, baby, toddler, child, adult, old person, old, young, brother, sister, mother, father, aunt, uncle, grandmother, grandfather, cousin, friend, family, boy, girl, man, woman	big/tall, small/short, bigger/smaller, baby, toddler, child, adult, old person, old, young, brother, sister, mother, father, aunt, uncle, grandmother, grandfather, cousin, friend, family, boy, girl, man, woman				
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Yr1- The children need to be able to name and identify a range of animals in each group e.g. name specific birds and fish. They do not need to use the terms mammal, reptiles etc. or know the key characteristics of each, although they will probably be able to identify birds and fish, based on their characteristics. Again, we expose the children to the different animal groups to challenge the more able learners and to encourage a love of information and scientific thinking/ vocab.

Yr1- The children do not need to use the words carnivore, herbivore and omnivore, but we do teach it, as it exposes the children to quality vocabulary that they will come across in other subjects. It also supports the mixed age groups. We will need to make sure that they understand that carnivores eat other animals, not just meat.

Although we often use our fingers and hands to feel objects, the children should understand that we can feel with many parts of our body.

Year 4 unit- Pupils will be taught to construct and interpret a variety of food chains, identifying producers, predators and prey. In order to construct food chains based on their first-hand experience, this statement should be taught after they have visited a habitat to name and identify the plants and animals as part of the Living things and their Habitats topic.

Year 4 - Teaching pupils to identify producers, predators and prey represents an opportunity for pupils to apply their knowledge of the function of teeth. Consequently, it makes sense to teach the statement 'construct and interpret a variety of food chains, identifying producers, predators and prey' after learning about teeth within the Animals, including humans topic.

## Skills Progression

<u>Skills progression</u>	<u>Skills progression</u>	<u>Skills progression</u>	<u>Skills progression</u>	<u>Skills progression</u>
Children ask questions, make observations and talk about what they have found out about: • animals from a different habitat. Children sort: • animals. With support, the pupil can: Make simple predictions about what they	<u>Skills progression</u> To identify and classify. To record data in a simple scaffolded table and use this to answer simple questions  Use observations and ideas to suggest answers to questions. Label simple	<u>Skills progression</u> To observe closely, using simple equipment and use observations to answer simple questions.- lifecycle of a caterpillar/chick/frog Stages of a human life.	<u>Skills progression</u> Setting up simple practical enquires. Making systematic and careful observations. To use written explanations to present findings.	<u>Skills progression</u> Report on findings from enquiries including oral and written explanations.- Identify that animals including humans need the right types amount of nutrition. Children create

<p>think might happen. -Carry out simple investigations in a small group. Explain why something happened. Use this to predict what might happen next/change</p> <p><b>ELG</b></p> <p>-Explore the natural world around them, making observations and drawing pictures of plants and animals. -Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. -Understand some important processes and the changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>animal diagrams. E.g. fish with scales and gills. Birds with wings and feathers</p> <p>Gathering and recording data in a simple scaffolded table -Draw round the human body and label each part with the correct sense.</p>	<p>To use observations to answer simple questions- Identify the things we need to survive.</p> <p>To perform a simple test to answer a simple question. describe the importance for humans of exercising, eating the right amounts of different food and hygiene. Introduce the eat well plate - fruit and vegetables, carbohydrates, oils and fats, dairy and protein. Prior to this, children are given a selection of foods which they must sort into their own categories before learning about the food groups.</p> <p>Investigations to do with age impacting exercise abilities/ stamina.</p>	<p>describe the simple functions of the basic parts of the digestive system in humans. Make the digestive system.</p> <p>Identifying differences, similarities or changes related to simple scientific ideas and processes. Record findings using simple labelled diagrams- Identify the different types of teeth in humans and their simple functions- Labelling teeth in humans and animals and describe the functions. Eat an apple and describe what teeth they are using.</p> <p>Record findings using simple labelled diagrams. -Construct and interpret a variety of food chains identifying producers, predators and prey. Create own food chains.</p>	<p>balanced menu in groups. Children could then have a competition to see which group created the best balanced meal, containing the different food groups. Compare and contrast food animals eat.</p> <p>- Identifying differences, similarities or changes related to simple scientific ideas- Animals cannot make their own food and that they get the nutrition from what they eat. Humans have a wide variety of foods with the different food groups. Compare to animals and how they are more restricted on the food they eat. Using straightforward scientific evidence to answer questions. identify that humans and some animals have skeletons and muscles for support, protection and movement- Children to identify and group animals with and without skeletons and muscles. Children look at different x-ray pictures and compare.</p>
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