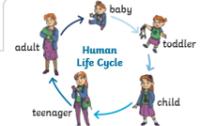


STEM - Animals including humans

Years 3 and 4 Classification and food chains click here <https://docs.google.com/document/d/1O4AGJzale07RKurnV2tJipXXx4gZwcKI/edit>

		National Curriculum Objectives	Substantive Concepts	Skills	Knowledge	Key Vocabulary	Enquiries
R	Year B	They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about	Animals are all around us.	Observing Talking about animals.	Animals are living thing Humans are animals	Human Animal Plant	
YR 1	Year B	<p>Animals</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>	That there are a range of living things around us and that they can be named.	<ul style="list-style-type: none"> Observing closely Recording observations Using a magnifying glass Drawing diagrams Labeling diagrams 	<p>Know the nouns for a range of animals found locally.</p> <p>Know broadly what the animals eat</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 describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) 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>Carnivore Herbivore Omnivore Predator Prey</p>	
Yr 2	Year B	<p>Animals</p> <p>notice that animals, including humans, have offspring which grow into adults</p>	<p>Know that all animals including humans can reproduce and produce more of that kind of animal.</p> <p>Basic survival needs for all living things is air,</p>	<ul style="list-style-type: none"> Asking and answering questions about what they see Compare habitats 	<p>Know the names of animal young and understand that their young is an offspring.</p> <p>Be able to identify a baby or an adult.</p> <p>Know that animals require water, food and air and that without them they would die.</p> <p>Notice that animals are suited to where they live because there is food there.</p>	<p>Young Chick Puppy Kitten Calf Antling Larva Piglet Fawn Kit</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>water and food.</p>	<ul style="list-style-type: none"> Sorting and classifying - grouping Record using charts Construct a simple food chain 	<p>Understand why we leave food and water out for birds.</p> <p>Know about one or two wild animals in depth for example a hedgehog.</p> <table border="1"> <thead> <tr> <th colspan="2">Key Vocabulary</th> </tr> </thead> <tbody> <tr> <td>adult</td> <td>A fully grown animal or plant.</td> </tr> <tr> <td>develop</td> <td>To grow bigger and become stronger.</td> </tr> <tr> <td>life cycle</td> <td>The changes living things go through to become an adult.</td> </tr> <tr> <td>offspring</td> <td>The child of an animal.</td> </tr> <tr> <td>young</td> <td>Offspring that has not reached adulthood.</td> </tr> <tr> <td>live young</td> <td>Offspring that has not hatched from an egg.</td> </tr> </tbody> </table> <p>Some animals give birth to live young.  Some animals lay eggs which the young hatch from.  Both of these types of young then develop into adults. </p> <p>Some offspring look like their adult when they are born.  Some offspring do not look like their adult when they are born. </p> <p>All young animals change as they go through the different stages of their life cycle and grow into adults.</p>  	Key Vocabulary		adult	A fully grown animal or plant.	develop	To grow bigger and become stronger.	life cycle	The changes living things go through to become an adult.	offspring	The child of an animal.	young	Offspring that has not reached adulthood.	live young	Offspring that has not hatched from an egg.	<p>hoglet habitat survival basic needs oxygen</p>
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YR 3	Year A	<p>Digestion, teeth and food chains</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>Teeth help us to eat. Every thing needs the right kind of teeth for the food we eat.</p> <p>Our bodies are made up of different parts which all have a different purpose.</p>	<ul style="list-style-type: none"> start to raise their own relevant questions about the world around them in response to a range of scientific experiences; Observe closely and make detailed observations as to the purpose of various body parts. Use secondary sources accurately and draw scientific diagrams with increasing accuracy. 	<p>Be able to name teeth and what their purpose is.</p> <p>Know how to take care of teeth.</p> <p>Notice the difference between teeth used for cutting and teeth used for mashing. Know that animals have different kinds of teeth depending on their main food source.</p> <p>Recognise that animals and humans need food to survive but they need the right kinds of food to thrive – link to D+T healthy food topic. Describe the simple functions of the basic parts of the digestive system in humans.</p> <p>Learn about the purpose of a skeleton. Name some key bones. Know that muscles are what help us to move. (links to P.E.)</p>	<p>Incisor Canine Premolar Molar Cavity Chewing Cutting Slicing Tearing</p> <p>Nutricion Balanced diet Carbohydrate Protein Calorie Exoskeleton endoskeleton</p> <p>Skeleton Joint (ball and socket, hinge, pivot) Muscles Tendons Ligaments.</p>														
YR 4	Year A	<p>Foodchains and classification</p> <ul style="list-style-type: none"> describe the simple functions of the basic parts 		<ul style="list-style-type: none"> use, read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge; record findings using scientific 																

		<p>of the digestive system in humans</p> <ul style="list-style-type: none"> 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. <p>Classification skills</p> <p>recognise that living things can be grouped in a variety of ways</p> <p>explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</p> <p>recognise that environments can change and that this can sometimes pose dangers to living things.</p>	<p>Life is a cycle which starts with the sun and ends in death,</p> <p>Living things have some things in common with each other. They can be grouped in this way.</p>	<p>language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p>As above.</p> <p>Talk about criteria for grouping, sorting and classifying</p> <p>Group and classify</p> <p>Collect data</p> <p>Present data</p> <p>Record findings using accurate scientific language,</p>	<p>Know about a simple food chain. Be able to explain each part and how it forms part of the circle of life.</p> <p>Understand the life processes Movement, reproduction, sensitivity, nutrition, excretion, respiration, growth.</p> <p>Know the basic classification groups. Mammals, reptile, amphibians, birds, fish, insects arachnids and know their main features.</p> <p>Know how to classify using a key.</p> <p>Know some of the threats to animals natural environments and human's role in that,</p>	<p>Producer Organism Radiation Decomposer Consumer Predator Apex predator.</p> <p>Classification key Mammal Reptile Amphibian Fish Insect Arachnid</p> <p>Threat Manmade Pollution Habitat</p>	
YR 5	Year A	<p>Human development. describe the changes as humans develop to old age.</p> <p>Life cycles and reproduction describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>describe the life process of reproduction in some plants and animals.</p> <p>Classification Classification and characteristics of plants and animal groups.</p> <p>describe how living things are classified into broad groups according to common observable characteristics and based on</p>	<p>Living things can be grouped according to their common characteristics.</p> <p>Life is a cycle.</p> <p>Living things are grouped in specific ways according to their characteristics. This is a universal understandin</p>	<p>Make careful and focused observations.</p> <p>Use and develop information records to describe living things.</p> <p>Draw conclusions</p> <p>Use primary and secondary sources o gather information.</p> <p>Present information using increasingly scientific language and attention to careful diagrams and labels.</p> <p>Independently group, classify and describe living things and materials.</p> <p>Use and develop keys and records to identify, classify and describe living things.</p> <p>Decide how to record data from a choice of familiar approaches.</p> <p>Use scientific diagrams and labels, classification keys, tables, scatter graphs, bar charts and line graphs.</p>	<p>Through RSE</p> <p>Differences in the life cycles of a mammal, a bird, an amphibian and an insect How animals reproduce The work of key naturalists and animal behaviorists</p> <p>Know the classification terms: Kingdom Phylum Class Order Family Genus Species</p> <p>And the characteristics of the 5 kingdoms</p>	<p>Germinate Germination Fertilise Fertilisation Pollinate Pollination Disperse Babyhood adolescence</p>	

		<p>similarities and differences, including micro-organisms, plants and animals</p> <p>give reasons for classifying plants and animals based on specific characteristics.</p>				
YR 6	Year A	<p>Circulation system</p> <p>identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>describe the ways in which nutrients and water are transported within animals, including humans.</p> <p>Evolution and inheritance</p> <p>recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	<p>The human body is an intricate web of different parts which are highly specialised to keep us working.</p> <p>That humans and animals have developed and changed over time and will continue to develop.</p> <p>That genes effect our appearance and character.</p>	<ul style="list-style-type: none"> use straightforward scientific evidence to answer questions or support their findings; identify similarities, differences, patterns and changes relating to simple scientific ideas and processes; recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. <ul style="list-style-type: none"> Use primary and secondary source evidence to justify ideas. Identify evidence that refutes or supports their ideas Read secondary sources skeptically and begin to separate fact from fiction. Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas Talk about scientific ideas which have developed over time. 	<p>Know that the heart pumps blood around the body. Know that it re-oxygenates blood Be able to link this to why the heart beats faster when you exercise.</p> <p>Know the difference between arteries and veins.</p> <p>Know that blood carries vital nutrients to the body and that this comes from the food we eat. Know that the blood also moves hormones around the body to fight infection and deliver messages.</p> <p>Know that being hydrated keeps the blood flowing around our body.</p> <p>Know what a healthy diet looks like and what the different food groups give to our body.</p> <p>Identify inherited traits and adaptive traits</p> <p>Understand that adaptations are random mutations</p> <p>Know the evidence in support of evolution. Have a basic understanding of Charles Darwin's work.</p> <p>Explain the terms adaptation, evolution and natural selection.</p> <p>Know about the development of evolutionary ideas and theories over time.</p> <p>Know what DNA and genes are</p> <p>Know and be able to explain how humans evolution has occurred.</p> <p>Identify the difference between selective and cross breeding.</p> <p>Explore the ethical issues of human intervention in the process of evolution by natural selection</p>	<p>Heart Chamber</p> <p>Oxygenated</p> <p>Deoxygenated</p> <p>Vein</p> <p>Artery</p> <p>Conduit</p> <p>Hormones</p> <p>Infection</p> <p>Calorie deficit</p> <p>Obese</p> <p>Anorexia</p> <p>Hydration</p> <p>Inherited</p> <p>Adapted</p> <p>Genes</p> <p>Evolution</p> <p>Evolved</p> <p>DNA</p> <p>Theory</p> <p>Selective</p> <p>Dominant</p> <p>Recessive</p>
YR 6+						