

Year 1 - Animals including Humans

Prior Learning	In Year 1 What they need to know	Later learning: Children do not need to be taught this year.	Key Vocabulary ASE
Children know about similarities and differences in relation to places, objects, materials and living things. They talk about 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 changes (Early Learning Goal 14).	• identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals • 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	In Year 2 pupils will be taught to: • Notice that animals, including humans have offspring which grow into adults • Find out about and describe the basic needs of animals, including humans, for survival (water, food, air) • Notice that humans have offspring which grow into adults • Find out about and describe the basic needs for survival (food, water, air) • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene In Year 3 pupils will be taught to: • 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 • Identify that humans and some other animals have skeletons and muscles for support, protection, and movement • Identify that humans need the right types and amount of nutrition and that they cannot make their own food - they get nutrition from what they eat • Identify that humans have skeletons and muscles for support, protection and movement	amphibians, birds, fish, mammals, reptiles, carnivores, herbivore, omnivore, shoulder, hand, fingers, leg, foot, thumb, eye, nose, knee, toes, elbow, head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak paws, hooves senses, touch, see, smell, taste, hear, fingers, eyes, nose, ear, tongue, skin <i>tentative language: perhaps, maybe, I was wondering, Does anyone else think.....?</i>

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		In Year 4 pupils will be taught: • Construct and interpret a variety of food chains, identifying producers, predators and prey • Construct and interpret a variety of food chains, identifying producers, predators and prey • 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 In Year 5 pupils will be taught: • Describe the changes as humans develop to old age In Year 6 pupils will be taught: • Describe the ways in which nutrients and water are transported within animals (including humans) • Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function • Describe the ways in which nutrients and water are transported within humans (and other animals)	NB 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. The children also do not need to use the words carnivore, herbivore and omnivore. If they do, ensure 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.
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Common Misconceptions

Some children may think:

- 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.

Possible Famous Scientists to study within unit

Chris Packham-Animal Conservationist
David Attenborough

Working Scientifically What they need to be able to do

1. Ask simple questions
2. Recognise that questions can be answered in different ways
3. Perform simple tests
4. Observe closely
5. Use simple equipment
6. Talk about what they have found out



Images taken from Primary-Science and PSTT.org

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Identifying and Classifying 	Comparative Testing Fair Testing 	Pattern Seeking 	Research 	Observation over time 
How can we organise all the zoo animals? What are the names for all the parts of our bodies? Which parts of my body are involved in my senses? Which sense do I use to....? Classify animals they have seen/have first-hand experience of, choosing their own criteria to do so. • Classify animals based on physical structure. • Classify animals they have first-hand experience of based on what they eat (plants, other animals, both). (Complete this after the research.)	Is our sense of smell better when we can't see? Just because I am older am I taller? Just because I am older am I taller? Can I taste the difference between different flavoured crisps/skittles/smarties?	Do you get better at smelling as you get older? Children generate questions for investigation such as: ▪ Do people with longer arms have longer legs? ▪ Can more people identify prawn cocktail crisps than cheese and onion? ▪ Do all animals with have?	How are the animals in Australia different to the ones that we find in Britain? Do all animals have the same senses as humans? What do I use my for? Where is my...? Use secondary sources to name animals seen in the local environment that they may not currently be able to name (e.g. birds: magpie, blackbird). • Research what animals they have first-hand experience of eat.	How does my height change over the year? Observe animals in local environment throughout the year.

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Snap Science link to subject content - **Looking at Animals** (7 lessons)
Enrichment activities to be set as challenges weekend/half termly or additional enquiry opportunities

Main Enquiry type covered by SS: Identifying and Classifying, Research (secondary sources)

Snap Science link to subject content - **Using our Senses** (6 lessons)
Enrichment activities to be set as challenges weekend/half termly or additional enquiry opportunities

Main Enquiry type covered by SS: Identifying and Classifying, Comparative Testing

Book Links:

Funny Bones,
 Look out! How we use our five senses
 The growing story

Big Cat links:

Lights Monica Hughes 978-0-00-718680-8 Band 3 Yellow	Learn about the qualities of each kind of light and the relationship between dark and light.
Sounds Julie Sykes 978-0-00-718584-9 Band 4 Blue	Crash! Buzz! Hum! There are sounds all around you. Which sounds do you like?

Pupils could work scientifically by:

- Make first-hand, close observations of animals from each of the groups.
- Compare two animals from the same or different groups.
- Classify animals using a range of features.
- Identify animals by matching them to named images.
- Classify animals according to what they eat.
- Make first-hand close observations of parts of the body e.g. hands, eyes.
- Compare two people.
- Take measurements of parts of their body.
- Compare parts of their own body.
- Look for patterns between people e.g. Do people with big hands have big feet?
- Classify people according to their features.
- Investigate human senses e.g. Which part of my body is good for feeling, which is not? Which food/flavours can I identify by taste? Which smells can I match?

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By the end of the unit children should know that... (Sticky Knowledge)

- There are many different animals with different characteristics.
- Animals have senses to help individuals survive. When animals sense things they can respond.
- Animals need food to survive.
- Animals need a variety of food to help them grow, repair their bodies, be active and stay healthy.

____-has identified, named, drawn and labelled parts of their body during a range of activities. ____ associates each sense correctly with a part of their body. ____ can name animals from each of the vertebrate groups and can describe and compare their features. ____ knows what some animals eat and is able to identify whether this is a plant or other animal



Secure learning indicators **PLAN knowledge matrices**

- Can name a range of animals which includes animals from each of the vertebrate groups Can describe the key features of these named animals
- Can label key features on a picture/diagram
- Can write descriptively about an animal Can write a What am I? riddle about an animal
- Can describe what a range of animals eat
- Can sort and group animals using similarities and differences
- Can use simple charts etc. to identify unknown animals
- Can create a drawing of an imaginary animal labelling its key features
- Can use secondary resources to find out what animals eat, including talking to experts e.g. pet owners, zoo keepers etc.

Please see www.ase.org.uk for PLAN supporting science assessment resources (found also in TEAMS)

Assessment Indicators for working scientifically in Year 1 -

Use observations and ideas to suggest answers to questions (context-identifying body parts)

Working Towards: When prompted can name some body parts.

Secure: Can explain features of their body part and link to senses, e.g. I can feel things with my legs. **Mastery:** Can talk about differences and similarities of body parts, including some internal organs, e.g. heart, brain, lungs, stomach

Identify and classify (context- grouping animals and plants by criteria)

Working Towards: Names some common animals and needs support to sort or limited to common mammals, birds and fish.

Secure: Name a variety of common animals including fish /amphibians /reptiles / birds/mammals. Uses observations to classify into given scientific groupings

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Knowledge Expected (guideline pupils do not have to be able to do all of this, it isn't a tick list) <i>N.B. Ks1 children do not need to be able to name the above five animal groups, but will have been made aware of them.</i> recognises and names a variety of animals from the following examples of the most well known vertebrates, (certain animals may be specific to the child's particular local environment) fish <i>e.g. shark, goldfish, haddock, cod, salmon, carp, pike, trout</i> amphibians (amphibians can live on land and in water, they have lungs and gills) <i>e.g. frog, newt, toad, salamander</i> reptiles (reptiles live on land, they have lungs but no gills) <i>e.g. snake, lizard, chameleon, crocodile, alligator, lizard, turtle, tortoise</i> birds <i>e.g. robin, blackbird, sparrow, pigeon, thrush, blue-tit, owl, peacock, eagle, hawk, seagull</i> mammals <i>e.g. human, cow, horse, elephant, dog, cat, fox, badger, whale</i>	Knowledge Exceeding (includes material from next stage but does not have to be taught!) - understands why animals are grouped - knows that all animals can be grouped into one of six groups - fish, amphibians, reptiles, birds, mammals and invertebrates - knows that five groups of animals - fish, amphibians, reptiles, birds and mammals are called vertebrates (i.e. have a backbone) and knows that other animals are invertebrates (i.e. do not have a backbone) - identifies some of the similarities and differences between the animals in the five vertebrate groups, <i>e.g. all mammals produce milk, all birds have feathers</i> - knows that some vertebrates are cold blooded and some are warm blooded - uses the terms herbivore, carnivore and omnivore correctly - classifies an animal as being a carnivore, herbivore or omnivore by describing what it eats - knows that herbivores are often prey for carnivores	including animal groups or omnivore/herbivore/carnivore and can explain how they are similar, e.g. birds have feathers, frogs go in the water and out of water, they are all mammals because they are hairy. Mastery: Can classify according to a range of features and give reasons for their choices, e.g. some mammals live underwater, include other insect groups <i>Please see primary science consultancy enrichment activities for additional resources in TEAMS, consider use of Activities - Explorify: Big Question, Mission Survive, problem Solvers, Mystery bag for challenging more able pupils.</i>
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N.B. Ks1 children do not need to remember the words omnivore, carnivore and herbivore but will have been made aware of these words - they could say that some animals eat plants or meat or both plants and meat

- knows the difference between a herbivore, carnivore and omnivore and names the types of foods that each eats
- names some common animals belonging to each group:
herbivores *e.g. deer, rabbit, horse, sheep, cow, elephant, giraffe, panda*
carnivores *e.g. cat, dog, lion, snake, owl, fox, badger*
omnivores *e.g. humans, pigs, hedgehogs, chickens*
- talk about the similarities and differences of common animals using language such as, wing, gill, beak, leg, feather, fur, scales, backbone, skeleton, shell
- groups pictures of animals on the basis of their structural similarities and differences, *e.g. wing, gill, beak, leg, feather, fur, scales, backbone, skeleton, shell*
- names, draws and labels the basic parts of the human body,

- identifies the group that an animal belongs to by looking at its structure
- describes and compares the structure of less common animals
 - names more of the parts of the human body including some internal organs, *e.g. brain, heart, lungs, skeleton, muscles, stomach, intestines*
 - explains in simple terms the function of some of the human body parts
 - talks about why the senses are important to humans (and other animals)
 - describes what it would be like for a human if one of their senses did not function correctly, *e.g. loss of sight, loss of hearing*

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<i>e.g. head, arms, legs, fingers, toes, knees, elbows, shoulders, neck</i> • names, draws and labels the basic parts of the human face, <i>e.g. nose, mouth, eyes, ears</i> • names the five senses and matches these with the part of the body associated with each sense		
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