



Year One Science: Animals



Scientific enquiry types covered in this topic

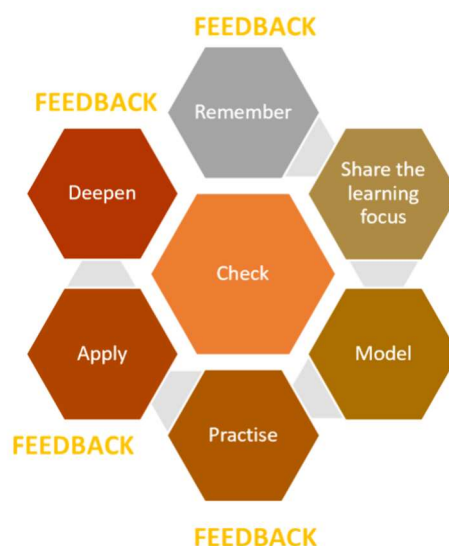
	Classifying, identifying and grouping
	Comparing and Fair Testing
	Pattern Seeking
	Research
	Observing over time

Knowledge of working scientifically covered in this topic

	Making predictions	Children consider in advance what might happen or what they might find and know this is called a prediction
	Ask and answer questions	Ask questions that include scientific language, recognising they can be answered in different ways. Use secondary sources to answer questions
	Observing	Use simple equipment to observe closely including changes over time
	Measuring	Begin to measure in standard units using equipment with simple scales
	Recording data	Gather data to help answer questions including secondary sources
	Performing simple tests	Perform simple tests
	Presenting results	Communicate ideas and findings in a variety of ways
	Drawing conclusions	Explain what happened, what was found out and why

Lesson Structure

- Build on **prior learning**
- Encourage students to **recall** that prior learning
- **Make** the new **learning** in each lesson succinct, **clear** and meaningful
- **Share/model/instruct** the new knowledge to students in small manageable steps
- **Check** they are with you throughout and are grasping the knowledge
- Provide opportunity to recall and **practise** the knowledge
- Provide live **feedback** during practise
- Provide opportunity to **apply** that new knowledge in a slightly different context
- Encourage students to **deepen** their understanding with challenging tasks that requires thinking, reasoning and explaining.
- **Check** students have secured the new knowledge with a quiz





Prior learning: In Reception, children had first-hand experiences to observe, handle and care for animals, including the growth of animals in and out of their natural habitats

Meet some brilliant scientists...



Steve Backshall is a British naturalist, explorer and adventurer who is best known for presenting TV's 'Deadly 60' programme.



Gerald Durrell was a naturalist and conservationist who learned about animals during his childhood in Corfu. He kept animals in his house and tried to set up a zoo at Upton Country Park, before setting up Jersey Zoo.

Which animals live around our school?

We will explore our school and local area to see if we can find any animals living in the school grounds. We will use leaflets and information about Upton Country Park, Upton Heath, Poole Harbour and Brownsea Island to learn about, identify and name the animals that live around Upton and Poole.



I can identify and name a variety of common animals

What different types of animals are there?

We will learn that there are different groups of animals (fish, mammals, reptiles, amphibians and birds) and we will identify and name a variety of different animals, include those found locally, and match them to these key groups. bbc.co.uk/bitesize/topics/76882hv



fish



mammal



reptile



amphibian



bird

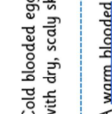
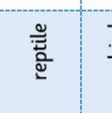
I know there are different animals: birds, fish, mammals, reptiles and amphibians



How are animals similar and different?

We will learn about the key features and structures of a variety of common animals to compare them:

fur	feathers	hair	number of legs
moist skin	fins	beak	webbed feet
scaly skin	gills	wings	claws



I know key features of animals' bodies including wings, fins, feathers, scales and fur



What do different animals eat?

We will learn about animals diets and what carnivores, omnivores and herbivores are, and identify and name some animals in each of these groups.

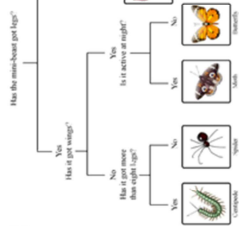


I know that animals can be carnivores, herbivores or omnivores



How do you group different animals

We will recap on the key features of different animals (fish, mammals, reptiles, amphibians and birds). We will learn how to use a simple binary key, and then create our own to identify animal groups using the key animal features we have learned about to help.



I know how to sort animals into different groups using a key

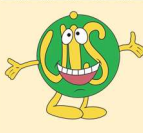


What do you know about animals?

We will recap our learning over the previous weeks to create a class book about animals, including describing their bodies, diet and the group to which they belong.



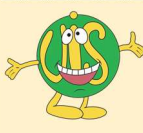
Key vocabulary: Glossary			
amphibian	Cold blooded egg-laying animals with slimy skin which live on land and in water	mammal	Warm blooded animals with hair or fur which give birth to live young
reptile	Cold blooded egg-laying animals with dry, scaly skin	carnivore	An animal which eats other animals
bird	A warm blooded egg-laying animal with wings, feathers and beaks	omnivore	An animal which eats both plants and other animals
fish	Aquatic animals with scales, fins and gills which lay soft eggs	herbivore	An animal which only eats plants

	Year One Science: Animals	Session 1: How many animals do you know?	
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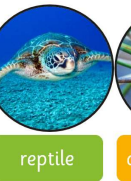
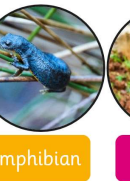
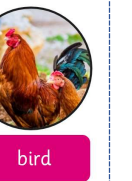
	'Sticky' Substantive Knowledge	I can identify and name a variety of common animals
	'Sticky' Disciplinary Knowledge	I can record data using a tally chart
	Scientific Enquiry Type	Research

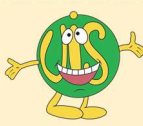
Recap / Retrieval	  Introduce key zoologists Steve Backshall and Gerald Durrell– explaining these are scientists who study animals. Explain that over the next few weeks we are going to be 'zoologists' and learn about some different animals that can be found around Upton.		
Share knowledge and vocabulary	Explain that today we are going to <i>research</i> animals that live in Upton by looking for animals ourselves in the local area and creating a tally of those that we see. Explain the word tally and how we create a tally.		tally 
Model	Look at some leaflets and information on the web about local habitats such as Upton Country Park, Upton Heath and Brownsea Island. What animals could be Model sorting pictures of animals into two piles - ones you may find in Upton, ones which you won't, for example lions / squirrels.		
Do and Check	Children to work in small groups - sort pictures of animals that they think they could find around Upton from animals that could be found around the world. Add the appropriate name label to the animal.		
Including scaffolding			
Apply in context	Look for animals around school and Upton, creating a tally of those seen		
Including scaffolding	Search for animals (Create a tally chart with title e.g. birds / squirrels / cats / dogs / people / spiders / ants / woodlice / worms / other)		
Reflect and review	What animals have we seen today? What other animals do you know of? Can you describe their appearance (e.g. fur, feathers, wings, legs etc.)		



	Year One Science: Animals	Session 2: What different types of animals are there?	
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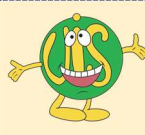
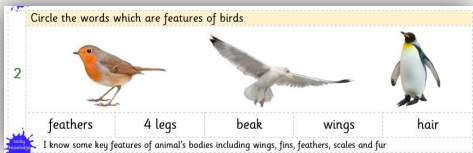
	'Sticky' Substantive Knowledge	I know that there are different animals including birds, fish, mammals, reptiles and amphibians.
	'Sticky' Disciplinary Knowledge	I can answer questions
	Scientific Enquiry Type	Classifying, identifying and grouping

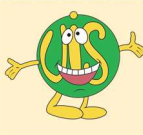
Recap / Retrieval	Recap learning from last session. Play a game of trying to name animals beginning with each letter of the alphabet.		
Share knowledge and vocabulary	Consider the animals seen last week. What type of animals were they? What different types of animals are there? Introduce vocabulary. Share the BBC bitesize videos https://www.bbc.co.uk/bitesize/topics/z6882hv to find out about the different animal types:     		mammal  fish  reptile  amphibian  bird 
Model	Explain that today's science lesson will be about grouping animals. Model sorting some animals into groups – fish, mammals, reptiles, amphibians and birds.      Discuss each animal as you do so		
Do and Check Including scaffolding	In groups, children to group pictures of animals into groups by animal type.		
Apply in context	Children to have a page divided into 5 sections with the title of each animal type. Children to draw and label some animals in each group.		
Including scaffolding	Scaffold with named pictures of animals where needed.		
Reflect and review	Play a game where you pass a bag around the circle containing cards with the 5 animal type names on them. When the music stops, children take out a card and name an animal which belongs to that group. Try not to name an animal which has already been said. For the animals said, teach to describe it (in terms of e.g. fur, feathers, legs, wings, beaks etc).		

	Year One Science: Animals	Session 3: How are animal's bodies similar and different?	
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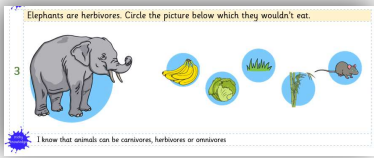
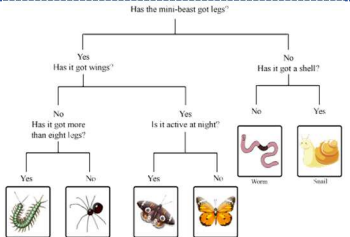
	'Sticky' Substantive Knowledge	I know some key features of animal's bodies including wings, fins, feathers, scales and fur
	'Sticky' Disciplinary Knowledge	I can use secondary sources to answer questions
	Scientific Enquiry Type	Classifying, identifying and grouping

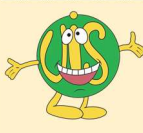
Recap / Retrieval	  Recap previous learning – provide children with a sheet of the animal types to 'talk like an expert' by talking about each animal type. Complete Quick Check		
Share knowledge and vocabulary	Talk about the animal types from last week. Explain that today we are going to be learning about the different parts of animal's bodies. Introduce key vocabulary, explaining it using appropriate pictures of animals		fin  wings  legs  scales  feathers  fur 
Model	Model matching some of the introduced vocabulary to pictures of animals.		      
Do and Check	Working in groups, children to have the key vocabulary labels and pictures of a range of animal from each of the groups, Children to match labels to animal pictures.		
Including scaffolding			
Apply in context	Children have set rings labelled fur, feather, scales. Sort animals by the body types.		
Including scaffolding	Repeat for legs / fins / wings Extension activities: Provide pictures of different animals (with some common features). Which is the odd one out? Why		
Reflect and review	Recap on today's learning.		

	Year One Science: Animals	Session 4: What do animals eat?	
	'Sticky' Substantive Knowledge	I know that animals can be carnivores, herbivores or omnivores	
	'Sticky' Disciplinary Knowledge	I can use secondary sources to answer questions	
	Scientific Enquiry Type	Research	
Recap / Retrieval	Circle the words which are features of birds 2  Recap previous learning. Take pictures of animals from a bag. Describe the animal in terms of the type of animal it is (amphibian etc) and describing its key body features. Complete Quick Check,		
Share knowledge and vocabulary	What do animals eat? Explain that today we are going to be learning what animals eat. Introduce by watching the BBC Bitesize video and introducing the key vocabulary: Carnivores / omnivores / herbivores https://www.bbc.co.uk/bitesize/topics/z6882hv  What do animals eat? Learn about the different foods animals eat with this Year 1 Bitesize guide.		carnivore  herbivore  omnivore 
Model	Recap what: Carnivores eat Herbivores eat Omnivores eat.    Discuss some pictures of animals, recap previous learning and discussing what they eat. Model sorting some animals into groups according to what they eat.		
Do and Check	Have 'top trump' style animal fact cards with picture, name, diet. Sort into groups of herbivores, carnivores or omnivores.		
Including scaffolding			
Apply in context	Complete stem sentences. Carnivore eat... Herbivores eat... Omnivores eat... Draw some animals under the correct title		
Including scaffolding	Scaffold with word bank with pictures.		
Reflect and review	Recap the learning from today's lesson		

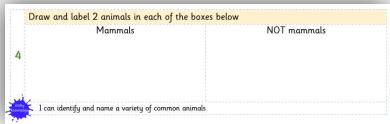
	Year One Science: Animals	Session 5: How do you group different animals?	
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	'Sticky' Substantive Knowledge	I know what a key is and how to use it to sort animals
	'Sticky' Disciplinary Knowledge	I can answer questions to classify animals
	Scientific Enquiry Type	Classifying, identifying and grouping

Recap / Retrieval	 Recap vocabulary for the previous lessons. Ask children to take a picture of an animal and describe it to their partner. Use the vocabulary learnt over the previous sessions. Complete Quick Check.		
Share knowledge and vocabulary	Explain that today we are going to use a key to identify animals. Explain that a key asks questions with a 'yes' or 'no' answer which sorts animals into two groups. This continues until you have identified the animal.		key 
Model	With the children in a circle, follow a simple completed key to model identify animals using a selection of animals.		
Do and Check	Children to follow completed keys to identify animals. Check that children have correctly identified the animals.		
Including scaffolding			
Apply in context	Working in small groups, children to have a selection of pictures of animals to use to create own keys using ready written questions, e.g. has it got fur? Has it got feathers?		
Including scaffolding	Photograph completed keys for children's books.		
Reflect and review	Share keys with class to check they work.		

	Year One Science: Animals	Session 6: What do you know about animals?	
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	'Sticky' Substantive Knowledge	Recall of all previous substantive knowledge
	Presenting results	Communicate ideas and findings in a variety of ways
	Scientific Enquiry Type	Research

Recap / Retrieval	 		Carry out class quiz to recap sticky substantive knowledge from previous weeks. Recap learning about animal groups, body types, food and grouping animals. Complete Quick Check.
Share knowledge and vocabulary	Recap knowledge and vocabulary from previous weeks.		
Model	Model creating a page for a class book about British animals for e.g. class animal.		
Do and Check	Have a selection of possible animals for the children to create a page for a class book on British animals (e.g. squirrel, fox, badger, hedgehog, duck, woodpecker, otter, frog, deer, adder, salmon).		
Including scaffolding	What do you know about animals? What type of animals are they?		
Apply in context	What are the features of their bodies? What do they eat? How could you identify them from the other animals in the photos?		
Including scaffolding	Support children with any gaps in their knowledge. Children to choose an animal. Make a page for the class book following teachers model.		
Reflect and review	Share pages and create class book, discussing knowledge from previous weeks of learning.		

Draw lines to match the animal to the name



amphibian

bird

reptile

fish

mammal

I know that there are different animals including birds, fish, mammals, reptiles and amphibians.

Circle the words which are features of birds



feathers

4 legs

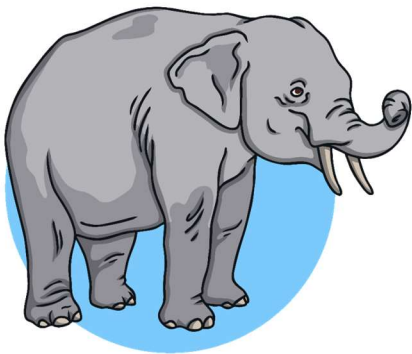
beak

wings

hair

I know some key features of animal's bodies including wings, fins, feathers, scales and fur

Elephants are herbivores. Circle the picture below which they wouldn't eat.



I know that animals can be carnivores, herbivores or omnivores

Draw and label 2 animals in each of the boxes below

Mammals

NOT mammals

I can identify and name a variety of common animals

observation



prediction



research



fair test



grouping



tally



mammal



fish



reptile



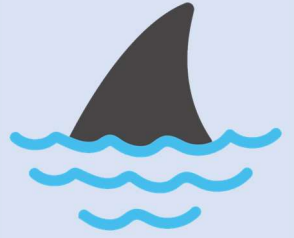
bird



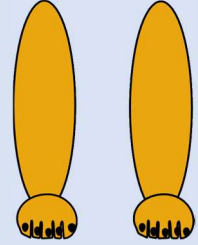
amphibian



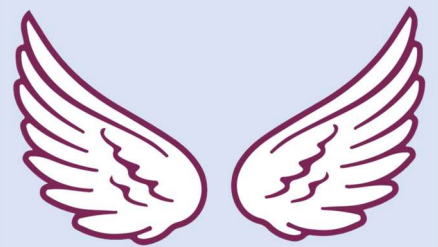
fin



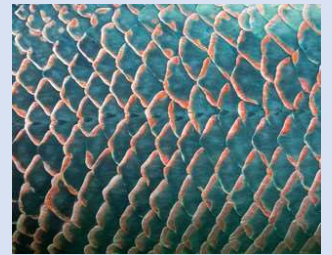
legs



wings



scales



feathers



fur



herbivore



carnivore



omnivore



key

