

WVS EDUCATION KS1 SCIENCE LESSON PLAN

Fur, Fins or Feathers?

Phase	Key Stage 1
Subject	Science/The World Around Us
WVS goal	To develop respect and care for animals by learning how their body structures help them to live and stay healthy.
Curriculum Links	<p>England KS1 Science <i>Knowledge objective:</i> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). <i>Working scientifically enquiry type:</i> Identifying and classifying <i>Scientific skill focus:</i> observing closely.</p> <p>Wales Science & Technology <i>Diversity of life (progression step 2):</i> I can recognise and compare some features of living things and discuss similarities and differences. Communicate differences and similarities in living things, using observable features to sort and group.</p> <p>Northern Ireland FS The World Around Us: Science & Technology Identify similarities and differences between living things.</p> <p>Scotland First Level Sciences I can sort living things into groups and explain my decisions.</p>
Links to Sustainable Development Goals	SDG 14 – Life Below Water SDG 15 – Life on Land

OVERVIEW

In this lesson, children will:

- identify and compare the observable structures of fish, amphibians, reptiles, birds and mammals
- use their knowledge of body structures to classify and group common animals

LESSON RESOURCES

Printable 1 – Fur, Fins or Feathers body structure sorting cards and sorting criteria. Prepare one set per pair.

LESSON OVERVIEW

<p>Part 1: Discover the issue</p>	<p>Entry ticket: Share the entry ticket question with children: How sure are you that you can describe and compare the structure of different animals? Children can give their answers using the scale 1 to 4 on their fingers to indicate how sure they feel.</p>
	<p>Video from a vet: Explain that different animals have different body parts and that we call these body parts their structure. Play the video showing a variety of different animals. On the first watch, ask children to see how many animals they can name. Before the second watch through, introduce the + 1 Routine. Use the +1 Project Zero Thinking Routine, developed by Harvard University, to help children build on what they already know or notice by adding one new idea, thought or detail. Further information can be found here: https://pz.harvard.edu/sites/default/files/%2B1%20Routine.pdf</p> <p>Pause the video on animals. Ask children to say which animals and body structures they can see. Then, ask the class to say one more thing they notice or can say about the animal. This encourages children to have a second look, spot a new detail or make a new link. Children can add onto each other's ideas, building a shared understanding as a group.</p> <p>Vet report – a vulture that needed help: Introduce the vet report from WVS vet Dagmar who works in Malawi, Africa. Explain that Dagmar recently helped a vulture, a type of bird, that had a sore wing. To help the vulture, or any animal, vets need to be experts in animal structure. Tell the children that today, they will become animal structure experts too.</p> <p>Animal structure input: Use each slide to guide children in identifying and comparing the observable structures of different animal groups.</p> <p>Birds: Explain that birds have a beak, wings, feathers, two legs and toes with claws. Some birds, like ducks, have webbed feet, but their toes still have small claws. See if children can suggest why each structure is useful to the animal. E.g. wings can be used for flying, although some birds use them for swimming or balance.</p> <p>Reptiles: Reptiles have dry, scaly skin. Most reptiles have four legs, though some, like snakes, have none.</p> <p>Fish: Most fish have scales, gills and fins. Discuss why: "scales protect their bodies, fins help them to swim, and gills help them to breathe underwater."</p> <p>Mammals: Mammals have hair or fur at some point in their lives. Get children to notice that people are mammals too!</p>

	<p>Amphibians: Most amphibians have webbed feet and soft, moist skin. You may wish to discuss how amphibians hatch in water and breathe with gills. Amphibians go through a process changing from an aquatic larval form with gills to an air-breathing adult form with lungs. Explain that their body structures help them live in both water and on land.</p> <p>Game: Body Structure Snap! Tell the children that they will now play a fun matching game to practise spotting body structures. Demonstrate how to play before they begin.</p> <p>How to play</p> <ol style="list-style-type: none"> 1. Put all the cards face down on the table. 2. Take turns to turn over two cards. 3. If the two animals have the same structure, shout “snap!” 4. Explain which matching body structure you have seen. 5. The first person to shout “snap!” wins the pair. 6. If there are no matches, turn the cards face down again and let the next player have a turn.
<p>Part 2: Join the adventure</p>	<p>Question to investigate: Introduce the enquiry question: How can we sort the animals into groups using their body structures?</p> <p>Ask children to suggest ways that they could sort animals into groups. Take suggestions and then reveal the chosen sorting criteria from printable 1 (for example, ‘scales/no scales’). Model the process for the class:</p> <ul style="list-style-type: none"> - pick up an animal card - look carefully at the photograph, using observation skills to spot body features - decide whether the animal fits in the ‘scales’ or ‘no scales’ group - place the card in the correct group and explain your reasoning aloud <p>Children then have a go themselves. They can sort animals using the same criteria, or you can differentiate by providing pairs or small groups with different criteria from printable 1.</p> <p>Encourage the children to talk about their choices, using full sentences.</p> <p>You may wish to take photographs of the sorting activity as evidence of learning and discussion.</p>

Part 3:
Be the change

Who's visiting the vets today? Explain that the vet clinic receptionist needs their help. State that you will read out body structure clues and that the children should listen carefully to work out which of the animals pictured are visiting the clinic. Check that the children know the names of all the animals pictured before you get started. Only three of the animals have appointments – one is just popping by to say hello!

Clue 1: This animal has claws for climbing and scales to protect its body. Answer: lizard

Clue 2: This animal has claws for perching, a beak for eating seeds and feathers to help it fly. Answer: parrot

Clue 3: This animal has scales for smooth swimming, a fin to help it move and gills to breathe underwater. Answer: fish

If you have time, get the children to describe an animal for the class to guess.

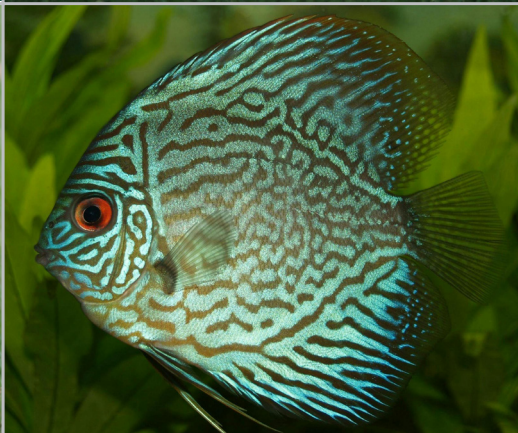
Exit ticket: Share the exit ticket question with children: How sure you are that you can describe and compare the structure of different animals?

Children can give their answers using the scale 1 to 4 on their fingers to indicate how sure they feel.

FUR, FINS OR FEATHERS? BODY STRUCTURE SORTING CARDS



FUR, FINS OR FEATHERS? BODY STRUCTURE SORTING CARDS



FUR, FINS OR FEATHERS? SORTING CRITERIA CARDS

Wings	No wings	Fur or hair	No fur or hair
Scales	No scales	4 legs	Not 4 legs
Feathers	No feathers	Claws	No Claws