

British Wildlife: Odd One Out

Animals



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Created by the Primary Science Teaching Trust (PSTT) and The Nature Collection

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[The Nature Collection](#) is an extraordinary collection of animal bones, skeletons, feathers, antlers, skins and photographs and was created by Susanna Ramsey.

Several of the photos were taken at the [British Wildlife Centre](#) in Surrey.

We are grateful to Dr Ralf Britz and Ritva Roesler for their assistance in creating this resource.

Guidance for using British Wildlife: Odd One Out

This resource is designed to encourage children to observe closely and to stimulate talk about the features of local animals and their habitats.

There are five **Odd One Out** activities in this slideshow. Each activity has four **animals** shown on one slide. They are a mixture of vertebrates (mammals, birds, reptiles, amphibians) and invertebrates (insects and a worm). All are commonly seen in the UK.

Each **Odd One Out** activity reflects a notable animal characteristic or behaviour (described in the slide notes). This may be useful when deciding which activity to use. We suggest that you share only one Odd One Out activity at any time. You can revisit the other activities another time.

Running the activity:

Choose a slide. Ask – **How are these animals similar? How are these animals different?**

Listen to children's suggestions. Encourage children to notice special features of each animal such as their colour, the shape, the number of legs.

Possible questions to prompt thinking & talking:

- What special body parts can you see? (feathers, scales, fur, horns, spines, etc.)
- What colour is the animal? Is the animal easy to see? It is camouflaged?
- Where do you think the animal lives? (in a tree, in water, on land, in a web)
- How do you think the animal moves? (running, walking, crawling, flying, swimming) How do you know this?

Then ask everyone to decide which is the **Odd One Out** and WHY. Encourage a reason for every answer given. There is no wrong answer here!

Background science:

The slide notes below each slide provide detailed information about the characteristics of each of the animals shown. This is intended to support teachers' subject knowledge. We are not suggesting that all children should be taught all these facts.

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Slides	Possible Theme	Animals
5	Life cycles	common frog, grass snake, lizard, song thrush
7	Skin covering/birds	barn owl, peregrine, pheasant, stoat
9	Spots	adder, ladybirds, six-spot burnet moth, fallow deer
11	Skeletons	earthworm, robin, harvest mouse, stag beetle
13	Webbed feet	otter, frog, damselfly, duck



common frog



grass snake



common lizard



song thrush

Possible theme: Life cycles

Lizard incubates its eggs inside the body and gives birth to live young.

The others lay eggs. Song thrush lays hard shelled eggs. Snake lays soft shelled eggs. Frogs' eggs have no shell.

Other possible reasons for being the Odd One Out:

Classification: Frog is an amphibian. Snake and lizard are reptiles. Thrush is a bird.

Flight: Thrush has wings and can fly. The others cannot.

Swim: Frogs and snakes are often in the water and are good swimmers. Lizards rarely go into water. A thrush just goes to water for a bath or drink.

Skin covering: Lizard and snake have scales on their body. Frog has smooth skin. Thrush is covered in feathers and has scales on the lower legs and feet. They all have blotches for camouflage.

Warm blooded: Thrush is warm blooded and the others are cold blooded.

Spots: Frog, thrush and lizard have spots on their body. Snake and lizard have lines on their body.

Eyes: They all have 2 eyes. Frog's eyes bulge out from the head.

Teeth: Frog, snake and lizard have teeth. Thrush just has a beak.

Legs: Thrush has 2 long legs. Frog and lizard have 4. Snake has 0.

Tails: Frog has no tail as an adult, just when it is a tadpole. Lizard can shed its tail. Thrush has a tail. Snake technically has a tail but it looks like the rest of its body.

Heart: They all have a heart.

Breathing: All have lungs and breathe. Frog can also breathe through its skin, even underwater.

Size: Snake is the biggest, then thrush, lizard and frog.



barn owl



peregrine



pheasant



stoat

Possible theme: Skin covering

Birds are covered in feathers and the stoat has hair.

Other possible reasons for being the Odd One Out:

Colour: Peregrine is mainly grey and the others are shades of brown. Owl and stoat both have white chests and bellies. Pheasant is brightly coloured. All the birds have mottled patterns for camouflage. Stoat changes colour in winter to be completely white, to match the snow, apart from its tail which stays black. Its brown coat camouflages with the earth and undergrowth.

Legs: The birds have 2 legs and the stoat has 4. Peregrine has yellow legs and feet.

Tails: Pheasant has very long tail feathers. The other birds have shorter tail feathers. Stoat has a short tail.

Beaks: All except stoat have a beak. Stoat is the only one with teeth.

Ears: Stoat has external ears. Others have ear holes hidden by feathers.

Eyes: Pheasant has brown eyes. The others have black. Peregrine has yellow skin around the eyes. Owl and peregrine have big eyes, facing forwards, to hunt.

Whiskers: Only stoat has whiskers

Predator: All except pheasant are fierce predators, hunting other animals.

Prey: Owl and peregrine have caught some food. Others have not.

Diet: The peregrine hunts other birds in the air. The owl and stoat hunt small mammals and some birds, mainly on the ground. The stoat eats birds' eggs too. The pheasant eats seeds, grain, berries and insects.

Nocturnal: Owl and stoat are mainly nocturnal and the others are diurnal.

Flight: The birds can fly but the stoat cannot. The peregrine is the fastest bird in the world, in downward flight. The pheasant cannot fly well and scarcely gets off the ground.

Habitat: All live in the countryside. Peregrines also nest in cliffs and in cities, nesting on cathedral spires and other tall buildings.

Classification: Stoat is a mammal and the others are birds. All are warm blooded.

Eggs: The birds lay hard shelled eggs and the stoat gives birth to live young.

Captive: Peregrine and owl are both captive birds. You can tell this because they have straps on their ankles. The others are wild.



adder



ladybirds



six-spot burnet moths



fallow deer

Possible theme: Spots

Moths have 6 spots on each wing. The deer is covered in white spots. The ladybirds have several black spots. The adder has a zigzag line down the back and spots on the side.

Other possible reasons for being the Odd One Out:

Colour: Ladybirds and moths are black and red. Deer is brown, white and black. Adder is brown, so she is a female. (Male adders have a black zigzag pattern.)

Skin covering: Deer has thick hair. Snake has scales. Moth and ladybird have tough exoskeleton. Moth has microscopic scales on the wings.

Antlers: Only deer have antlers

Antennae: Moth and ladybirds have antennae. Others do not.

Eyes: They all have 2 eyes except for the moth which has 4. It has 2 large, compound eyes which we can see and two small, simple eyes.

Legs: Adder has 0 legs. Deer has 4 and the insects have 6.

Feet: Deer has 2 hooves on each foot. Insects have claws. Adder has 0 feet.

Tails: Deer has a tail. Snake has a tail but it looks like the rest of the body. Others do not have a tail.

Classification: Deer is a mammal. Snake is a reptile. The others are insects. Only the deer is warm blooded.

Life cycle: Deer gives birth to live young. The others lay eggs.

Flight: Moths and ladybirds can fly. The others cannot.

Diurnal: All are active by day.

Predator: Change deer sentence to Deer are prey but as adults they have no predators in the UK except for humans. Young deer may be eaten by foxes.

Diet: Adders eat mainly small mammals like mice and lizards. Deer eat grass. Moths drink nectar. Ladybirds eat aphids.

Venomous: Only the adder is venomous. It has a bite which is dangerous even to dogs and humans.

Size: Deer is much bigger than the others, then adder, moth and ladybird.



earthworm



robin



harvest mouse



stag beetle

Possible theme: Skeletons

Stag beetle has a tough outer casing to its body which is the exoskeleton. Robin and mouse have a skeleton inside the body. Earthworm has no skeleton.

Other possible reasons for being the Odd One Out:

Colour: Worm is pink. Beetle is dark brown. Mouse is medium brown and white underneath. Robin is brown on top with an orange breast and cream underneath.

Skin covering: Worm has no skin covering. Robin has feathers. Mouse has hair. Beetle has a tough exoskeleton.

Ears: Mouse has external ears. Robin has ear holes covered in feathers. Beetle and worm have no ears.

Eyes: All look as if they have black eyes (although the bird and mammal have a different colour iris around the black pupil, which we cannot see in the photos, so the entire eye appears black) except for the worm which has no eyes. Worms have cells in their skin which are sensitive to light and touch.

Legs: Worm has 0 legs, robin has 2 long, scaly, pale brown legs and 2 wings (which are the equivalent of the mouse's front legs), mouse 4 short, pale pink legs and beetle has 6 thin, black legs. All except the worm have claws.

Tails: Mouse and robin have a tail.

Invertebrates: Worm and beetle are invertebrates. They have no backbone. The others are vertebrates.

Cold blooded: Worm and beetle are cold blooded. The others are warm blooded.

Life cycle: Mouse gives birth to live young. Beetle, worm and robin lay eggs.

Flight: Beetle and robin can fly. The others cannot.

Nocturnal: All are active by day except the mouse which is mainly nocturnal.

Mouth: The adult stag beetle has a mouth and drinks the juices of rotting fruit. Only the mouse has teeth. Robin has a beak.

Habitat: Worm lives in the soil, underground. Mouse and robin live above ground. Robin lives in woods, parks and gardens. Harvest mouse lives in fields and farmland. Stag beetle lives underground, maybe in dead wood, as a larva and above ground as an adult. Stag beetle lives in woods and gardens.



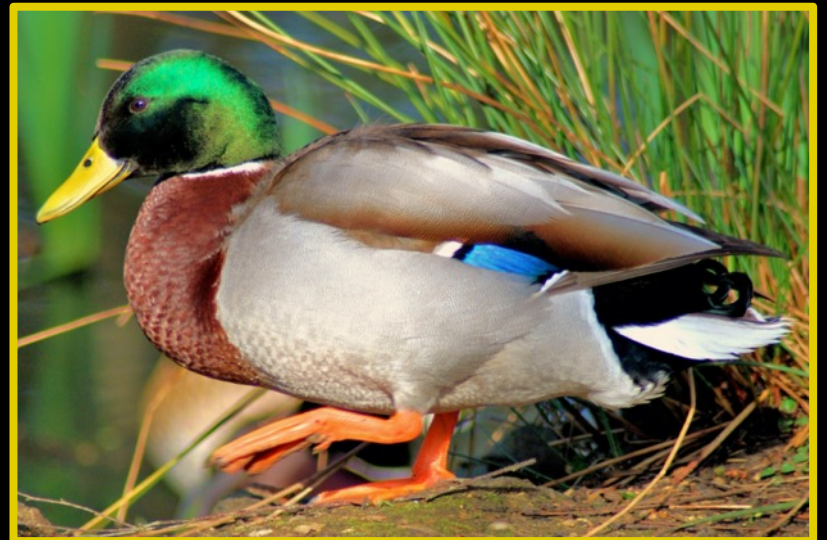
otter



frog



damselfly



duck

Possible theme: Feet

Otter, duck and frog have webbed feet, which help them move quickly through water. Damselfly does not have webbed feet. It has claws to catch prey and grip onto plants.

Other possible reasons for being the Odd One Out:

Colour: Frog is green all over. Duck has a green head and patches of colour. Otter is dark brown and the damselfly is blue. Otter and frog are best camouflaged.

Skin covering: Otter has waterproof hair. Duck has feathers. Frog has smooth skin. Damselfly has an exoskeleton.

Eyes: Damselfly has 5 eyes. The others have 2. Frog has gold-coloured eyes with a pupil. The others have dark black/brown eyes.

Whiskers: Otter is the only one with whiskers.

Teeth: Otter and frog have teeth. Duck and damselfly do not.

Beak: Only the duck has a beak.

Skeleton: Damselfly has a tough exoskeleton, outside its body. The others have endoskeletons.

Legs: Damselfly has 6 legs, frog and otter have 4 and duck has 2. Duck has orange legs and feet!

Wings and Flight: Damselfly and duck have wings and can fly.

Tails: Otter and duck have a tail. Frog and damselfly do not.

Predator: They are all predators and prey. They are hunted by other animals and eat animals themselves. Young otters may get eaten by birds of prey or predatory mammals. Damselflies are eaten by frogs and frogs may be eaten by an otter or duck. Ducks can be eaten by a fox.

Classification: Otter is a mammal, duck a bird, frog an amphibian and damselfly an insect.

Cold blooded: Frog and damselfly are cold blooded. The others are warm blooded.

Life cycle: Otter gives birth to live young. The others lay eggs.

Nocturnal: All are active by day except the otter, which is mainly nocturnal.

Size: Otter is the largest, then duck, frog and damselfly.

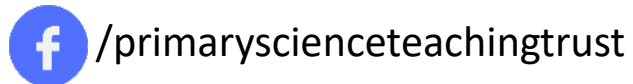
Water: Damselfly cannot swim or float but the others can move on or through water.

Habitat: All live by water in ponds, streams, lakes or rivers. Some ducks and otters live by the sea.

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pstt.org.uk



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