



9 Wild safari!

By Lydia Harrison

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Theme: animals and fish

MESSY CHURCH GOES WILD CHAPTER LINK: 2 – CARING FOR ANIMALS AND BIRDS

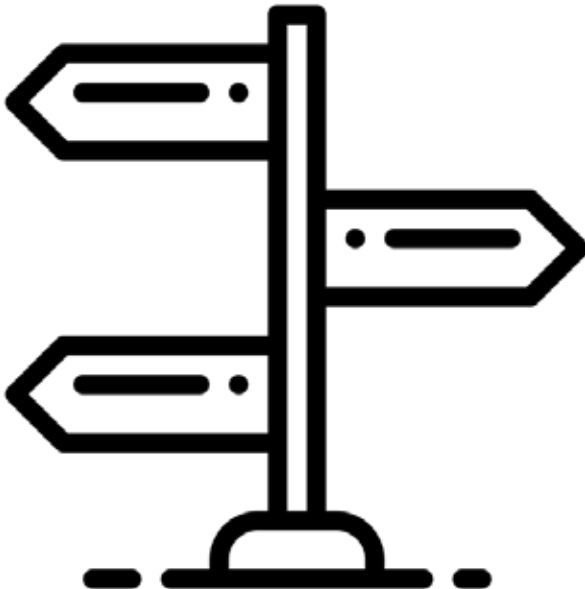
Aim: to discover more about God and about good stewardship of our earth through looking after our animals (domestic, farmed and wild) and our sea life.

Science advisor: Anne Scott

Messy Church values:

- Christ-centred – discovering more about our responsibility as stewards of creation by exploring what the Bible says.
- Hospitality – the earth is not just our home, but a home for animals and fish. We are all linked together – how we treat animals and fish affects us. Some animals and fish provide us with food to eat (link to farming).
- Celebration – the joy of getting to know creation – God’s variety of animals, thankfulness for the gift of animals and fish.
- Creativity – imagining different ways of caring for animals and fish, discovering different species, recognising the creativity of God and seeing the creativity we have been blessed with in God’s image.
- All-age – opportunities for adults and children to reflect on how they can make a difference in their care for animals and fish.

Section 1 On the move



1 Flowing water area

- Take a moment to pause and listen to the sound of the water. What else can you hear? Can you hear any birds? Can you hear any animals? Maybe you can see water voles? Rats? Otters? Can you hear any splashes which might mean there are fish or frogs in the water?

- Talk about the different animals and fish that could live here, not just in the water but around it, in the bushes and trees around the area too.



- Whose homes or habitats, as well as human beings' homes might be in this area? What would a water vole home look like? What would an otter home look like?

- Whose home matters most?

- Challenge the group to (safely) pick up any litter they see, so they can make this a nicer home for wildlife.

- Could you do a wildlife survey here? Perhaps a square metre of ground looking at what evidence there is of wildlife within it, or if you can see any animal tracks (footprints or poo)?

- Tell the section of the story of creation where God created animals and fish. In Genesis 1:26, God said: 'Let us make mankind in our image, in our likeness, so that they may rule over the fish in the sea and the birds in the sky, over the livestock and all the wild animals, and over all the creatures that move along the ground.' What does this mean? How can we be good stewards along with God to care for creation? How can we help this habitat thrive and flourish?

Ask: what questions do you have about this?

Suggestions for specialist input: environmental scientist.

2 Pond (wild or in a garden)

- Pause by a pond or small body of water.
- What do you notice here? How is it different from the running water in the section above? Are there any differences in the creatures you see here? Can you see any frogs or tadpoles? Are there any fish here?
- Are ponds usually more likely to be made by humans? What is the purpose of the pond? To create a space for wildlife? If it is a natural pond, what are its surroundings? Can you spot any activity here? Tracks? Footprints? Poo? Bubbles in the water from fish and insects?
- How tidy is the area? Is pruning and gardening always a good thing? What would our landscape look like if we let it go wild and uncontrolled?
- Talk about the way wildlife needs specific things in order to flourish and grow, just as we do. What might these things be? What would happen if one of them were taken away? How can we ensure that life in this pond is sustainable? What can we do?
- Talk about what happens when the environment changes or becomes polluted. Do you think animals and fish would still live here? Fish need oxygenated water to survive, just like we need oxygen in the air. Fish don't breathe through their mouths, but they breathe through gills in their necks. Pollution and lack of plant life in the water can lead to lack of oxygen. If they don't have enough oxygen, they will die.
- Talk about the way our lives can get clogged up with rubbish too and this could prevent us from flourishing – Jesus is like a gardener or groundskeeper, working to ensure that our lives flourish, by taking care of us and dealing with our sins on the cross.
- You could clear the pond of litter, leaves and excess pond weed (leaving by the side of the pond for a week or so to allow any wildlife to return to their pond habitat).

Ask: what questions do you have about this?

Suggestions for specialist input: environmental scientist, groundskeeper/gardener.



3 Lake

- As you pause by a lake, talk about what makes it different from a stream or pond, how it being bigger can mean there should be more opportunity for more variety of species to live.
- Conduct a wildlife survey of the area, how many of each different species you can see?
- What makes this a good place for wildlife to live? What do they have here to call home? Can you spot any nests (being careful not to disturb anything!).
- Who looks after this lake? What would happen if something changed about this environment? Would you still find the same variety and number of animals and fish?
- Who would be affected if the number of fish decreased or increased in the lake?

- If it is a fishing area, speak to the fishers about what species of fish they have seen recently and the size. Talk about the process of fishing, do they put whatever they find back? What would happen if they didn't? Would there be too little fish, or is it a case of population control? Talk to them about the need to be still and quiet when fishing so you don't disturb the fish.

- How might we build in more time to be quiet and still into our lives? What difference would that make to us?

- Fish and seafood is a huge part of our diets – how do we ensure that this is done in a sustainable manner? Maybe talk about the film Happy Feet where the penguins danced in order to let the world know they had no fish – how can we ensure this doesn't happen in real life? How do we fish in a way that benefits humans and other animals?

- Consider the disciples' experiences of fishing on Lake Galilee – times of plenty and times of none.

- Maybe you could look at the water courses which run into the lake and consider the responsibilities there are to care for them and the affect they have on the lake.

Ask: what questions do you have about this?

Suggestions for specialist input: environmental scientist, fishers, farmers.



4 Fields with animals in/farm/petting zoo

- Have a good look around the space (perhaps a guided tour from the farmer or keepers), how many different types of animals do they keep? How do they look after the animals? What do the animals produce – milk, wool, meat? What are their busiest times (i.e. lambing season)? How easy or difficult do they find what they do? Do they get a fair price for their produce?
- What is the difference between a wild animal and domesticated animal? What is the difference between these and an animal kept on a farm? Do they have names? Does the farmer know them individually? Do the animals know the farmer?
- Talk about some of the ethical issues farmers face around animal welfare, sustainability, wildlife, workers' pay and conditions, herbicides and pesticides and public access on footpaths. What can we do through the ways we shop and eat to help farmers farm in a way that God would enjoy?
- Talk about the carbon output of farming and the methane content of cow farts. What impact does this have on our environment and climate change? Can you hear any cows farting? (Can you hear any humans farting?)
- Tell the parable of the good shepherd (John 10:7–18) (you may wish to tell this story in the extended Godly Play style). The good shepherd makes sure that the animals have what they need. How are the people you know who look after animals like or unlike the good shepherd? What makes a shepherd good?

- What does Jesus mean when he says he will lay down his life? This points us to the Easter story, where Jesus gave up his life so we could live life in all its fullness. How does that make you feel? How does it feel to know that God takes care of you?

- Just like the good shepherd knows each of his sheep by name, God knows each of us by name. How does this feel?

- Look at the soil in the field inhabited by cows and notice what lives in it to observe the interconnectivity. Compare to soil which has been used to grow crops and had pesticides used on them. What differences can be seen?

Ask: what questions do you have about this?

Suggestions for specialist input: environmental scientist, farmer.

5 Woodland/forest/ park with trees

- Explore your local woodland. What trees and bushes can you see? Can you see any signs of animals? Tracks, footprints or poo? Can you see any animals? Squirrels? Mice? Voles? Stoats? Rabbits? Deer? Foxes? Hedgehogs? Can you see any habitats or nests?

- Stop and listen. What animal noises or cries can you hear? Pheasants? Foxes? Birds? How might animals see and hear their surroundings? Use owl eyes (look all around you in a circle) and deer ears (hands cupped to enhance hearing).

- Spend a bit of time looking up at the trees. Trees provide a home for many different types of animals. Animals can live in their roots, trunks or branches, and they can often find plenty of food in these trees too, by producing fruits and nuts: what sorts of animals can you think of who might live here? Have a den-building competition to make a den that you might live in if you lived in this woodland.

- Woodlands are teeming with life. They have a complex ecosystem where everything depends on everything else – if one thing was out of balance, this might affect the life of the whole woodland or forest. The trees provide shelter, food and protection from other creatures higher up in the food chain. Play a game of tag and give the ‘it’ a different name of a predator and the people being chased a type of prey each round you play.





- We use trees to make paper and cardboard. We need to be careful about what this process does to forest and woodland habitats. One way to care for forests and woodlands is to recycle or reuse paper and cardboard. Another way is to ensure that more trees are planted than we harvest.

- Talk about the difference between coniferous forests and deciduous forests. Coniferous forests are mostly in places that have short summers and long winters, so the animals that live there have to keep warm for longer periods of time and often hibernate. Deciduous forests have trees which don't keep their leaves in winter, and so don't provide much shelter for animals over the winter.

- Talk about what we could do to help forests and woodlands and the creatures that live in them. For example, what do we do if we see a hedgehog out during the day? How do we ensure we are supporting businesses that work sustainably in their production and use of paper and card?

- In consultation with the landowner and at the right time of year, you could do bulb planting or sapling planting to develop areas of the woodland.

Ask: what questions do you have about this?

6 Nature reserve/wild patch

- There are a number of nature reserves around the world, some are small and local, and others cover huge areas of land. They cover all sorts of different habitats: woodlands, marshes, bogs, caves, lakes, moors and mountains to name just a few! I wonder what different species of animals and fish you will see in these reserves? Have a look at this website (wildlifetrusts.org/visit/where-see-wildlife) to see what types of animals live where! If you're at a wild patch that isn't a nature reserve, what could you do to make it into a place which protects biodiversity?
- Read Job 12:7–10: 'But ask the animals, and they will teach you, or the birds in the sky, and they will tell you; or speak to the earth, and it will teach you, or let the fish in the sea inform you. Which of all these does not know that the hand of the Lord has done this? In his hand is the life of every creature and the breath of all mankind.' How does it feel to know that God has you and every living creature in the palm of his hand? What does that tell us about the way we should be treating one another? And treating the world? His creation?

Ask: what questions do you have about this?

Celebration

Invite everyone to share one new thing they've learned today and one thing they're going to do this week that's different because of what you've done today. Remember to ask about how you all got on next time you meet.

Prayer

What would you like to pray for today? Maybe you'd like to pray for something to change – perhaps an illness, a difficult situation or a problem. We've seen today how God has created a huge variety of animals and fish, and that we need to take care of them. And God takes care of us, too. So think of your favourite animal – and as you think of it, silently tell God what you would like his help with, knowing that he cares for you and looks after you.

As you leave

Invite everyone to talk on your way home about where you saw God at work today.

Section 2 Adventure area in one spot

There are two options here, depending on how brave you are feeling!

1 Meet at a woodland

- Spend some time just being still and looking up at the tree canopy. Can you feel yourself becoming more relaxed? Why does spending time in nature help us to feel more relaxed? The limbic system produces the neurochemicals that tell your body what's good or bad for you. It's a survival mechanism: in the presence of something good, the brain releases four main 'feel good' chemicals – endorphin (determination), oxytocin (trust and belonging), serotonin (safety and respect) and dopamine (motivation).
- Invite people to take a printed copy of Genesis 1:20–26 and read through it together or in small groups. Imagine that God is creating the animals in front of you. What can you see? What is your favourite animal? What does it mean to look after animals? What about farm animals that produce food for us to eat? Have a discussion about what good care for animals might look like, and what we can do to support and encourage good care of animals.
- Use a selection of the activities in section 3 to explore different animals and fish.
- Explore what biodiversity there is through pond dipping, hunting for tracks and burrows or dens, listening to birds and insects and counting the different species within a square metre.
- Survey any pollution and litter and reflect on what dangers these items create for wildlife.

2 Pet service – church or church yard or large outdoor space

- Ask the group if they have any pets or animals and get them to either bring a photo of their pet, or (risk assessment about animals eating each other needed!) bring them to show each other. How do each animal's needs vary? For example, dogs need long walks, domestic birds need a cage, guinea pigs need a safe outdoor run and lots of grass.
- Talk about Proverbs 12:10: 'The righteous care for the needs of their animals, but the kindest acts of the wicked are cruel.' God cares about the way we look after our animals and if we want to be righteous it seems we must take care of his creation. Is cruelty toward animals and other people a sign of wickedness then? How can we challenge cruelty? What can we do to encourage everyone to treat animals kindly?
- Psalm 148:7–12: 'Praise the Lord from the earth, you great sea creatures and all ocean depths, lightning and hail, snow and clouds, stormy winds that do his bidding, you mountains and all hills, fruit trees and all cedars, wild animals and all cattle, small creatures and flying birds, kings of the earth and all nations, you princes and all rulers on earth, young men and women, old men and children.' If all living creatures are created to praise God and obey him, then what does this mean for us?

Wonder:

- How have animals affected us? Domestic animals provide companionship and friendship. Farming animals provide us with food. Without wild animals our ecosystem and environment would suffer.
- But we need to think about not just what they can do for us, but what we can do for them. We need to look after animals and fish and look after their environments and ecosystems too, in order to allow them to flourish.
- How does it affect our view of animals to know that God provides for and sustains all animals? (Psalm 104) As we are made in God's image, how does this impact the way we live?
- I wonder if we could look into different ways we can help our planet and look after our animals? What does it mean to be a 'green Christian'? What small changes can we each make so that the planet is sustainable?
- In Psalm 145:9 we read 'The Lord is good to all; he has compassion on all he has made.' How can we show compassion to each other and to animals? Who can you speak to in order to find out more about this?
- If animals are intelligent/sentient/have feelings, what does this say about the way we need to care for them?

Suggestions for specialist input: environmental scientist, naturalist, zoologist, botanist, Wildlife Trust, farmer.



Section 3 Activities to explore animals and fish







1 Making a hedgehog home

You'll need: a hammer; nails; hinges; soil; straw or dry leaves; polythene sheeting; untreated plywood; a quiet shady spot – either in your garden or in your church grounds. Have a look at the Wildlife Trusts page ‘How to build a hedgehog home’ (wildlifetrusts.org/actions/how-build-hedgehog-home) to help you! Don't get to risk assess the use of a hammer and nails.

What to do: assemble the home, making sure that there is space only for a hedgehog and not for other animals such as cats who might come and eat the food you put out for the hedgehog. Put the food under a log or under a shelter which is only accessible to hedgehogs. Remember that hedgehogs don't drink milk, but they do love meat-based cat or dog food, specially made hedgehog food and cat biscuits. It is good to leave out a saucer of water for them. Also think about access in the garden, consider putting a hole in the bottom of the fence to give the hedgehog a safe route through gardens.

 **Big thinking:** there has been a significant decline in the number of hedgehogs in the UK in recent years – they are classified as ‘vulnerable’ in the UK with numbers falling by 30% in urban areas and 50% in rural areas since 2000. This is due to the use of pesticides which kill their food (slugs and insects) as well as a lack of space for them to travel and hunt. Hedgehogs need a home and a safe place to rest – just like humans. By providing a space for them in your garden, building connecting tunnels through your fences and not using chemicals in your garden, you may well be helping the population to increase again!

 **Big question:** why do you think hedgehog populations are decreasing? Does it matter that the hedgehog population is decreasing? What does that do to the ecosystem? What can we do to help? What makes a good home for them? Psalm 41:1 says: ‘Blessed are those who have regard for the weak; the Lord delivers them in times of trouble.’ This was more likely to be a statement about looking after humans, but I think the principle applies to animals too – if we look after them, we will be blessed.

2 Making an animal nature picture

You'll need: a selection of natural items from a woodland environment (pinecones, acorns, leaves etc.)

What to do: create a picture of an animal from your materials. What animals could you design out of these objects? Perhaps you could make a fox, a hedgehog or an owl? Once you've made your picture, perhaps you could take a photo, then return the items to where you got them from.



Big thinking: everything within an ecosystem is connected – think about this food chain: the oak (producer) produces a leaf – the leaf is eaten by a caterpillar (primary consumer) – the caterpillar is eaten by a blue tit (secondary consumer) – the blue tit is eaten by a sparrow hawk (tertiary consumer). Each part is needed to enable all the populations to flourish. In order for the individual elements to flourish, we need to care for the environment – not using pesticides and herbicides; not cutting down trees unnecessarily; not removing all the undergrowth; not fencing off areas to prevent animal access.

Each of the natural materials you are using are also used by the creatures which live in the ecosystem – maybe as food, nesting material or maybe it is the primary producer (a leaf). Consider the interrelationships and how they affect the animals and birds as you use the materials.




Big question: in Genesis (1:20–25) we hear that God created all sorts of different animals and asked us humans to care for them. What does it mean to care for animals? What do they need? What can we do to ensure that they have a good, sustainable environment to live in? What would stop this woodland from being a good place to live in? Would it matter if one of the species disappeared?



3 We're going on a nature hunt!

You'll need: space to run around; list of things to look out for (e.g. specific minibeasts, natural features or different colours). Also, have a selection of ID guides: animal poo, footprints, minibeasts, flowers, trees (all available online or from the Field Studies Council) or something similar.

What to do: using your list, try and find evidence of wildlife or nature around you. Don't disturb anything, but maybe take a photo or do a drawing of what you have found and what it might mean in terms of what animals have been around.

 **Big thinking:** we move through and pass many habitats which provide life for many other creatures: in their habitat, they hunt, eat and create waste; they clean themselves, build shelter and meet with others of their species. We can find evidence of their existence through careful observation – holes in the ground or the riverbank; fur or feathers; poo; flattened grass; half eaten nuts; holes in leaves; remains of meals. All the natural things you find will gradually break down and become part of the earth again – decomposing and making new soil. It helps us to recognise the diversity of life there is within a habitat and how we need to live with an awareness of life around us: thinking about our impact in how we use land and space.

If you find any evidence of people, chances are that it will be with manmade materials (plastic or metal) which does not break down into new soil again.

? Big question: in Psalm 50:10–11 God says, 'for every animal of the forest is mine, and the cattle on a thousand hills. I know every bird in the mountains, and the insects in the fields are mine'. What do you think he meant? If God knows each of the animals and says they are his, does he also say that about us? How does it feel to know that God knows you?



4 Pond dipping

You'll need: a white tray (white so you can see the creatures you've scooped up) or collecting pots; a net; a field guide; pond water.

What to do: half fill a tray and/or collecting pots with water from the pond. Use your net in the pond in a figure of eight motion to ensure that you keep what you catch in it. Turn the net inside out into the tray or collecting pot. Use your guide to see what you have collected. Make sure you return all of the creatures and the water to the pond when you've finished.



Big thinking: you can discover life in all areas of the pond: watch the surface and see the water skaters and lesser water boatman move around on and just under the surface of the water. Flying over the top, you might spot a damselfly or dragonfly. On the edge and clinging to plants within the pond, you will find beautifully coloured water snails and maybe froglets exploring. As you explore the water from the pond, you will find a wide variety of larvae and nymphs, which are flies and beetles in their toddler form – they will transform into flying insects after living in the pond from between two months to two years. They often try to hide to protect themselves – the caddisfly larvae will draw pebbles and pieces of wood around itself to disguise itself. If the pond is healthy, you may find freshwater shrimps and leeches.

All the creatures work together in the pond with food webs enabling all of them to eat and enough space for them to lay their eggs and reproduce. All the creatures are required to keep the pond healthy.



Big question: how many different creatures did you find? Were you surprised by how many there were? Isn't it amazing how in such a small space there is a whole ecosystem! Does this point you to a creator God? Christians believe that God created everything. How does this help us to understand the world we live in? Did you spot any creatures in an unexpected phase of life? What does that tell you about transformation and different seasons of life?

5 Rock pooling

This is quite similar to pond dipping, but at the seaside!

You'll need: a clear bucket or clear tupperware (nets aren't recommended when rock pooling due to the nature of the sea life you might find in them); an ID guide to effectively name the creatures you find; a beach that has rockpools.

What to do: how many different types of seaweed can you spot? How many different types of animals and fish can you spot? Wildlife including crabs, shrimps, anemones, limpets, snails and starfish can all commonly be seen in rock pools around the coast. You'll need to get really stuck in to find some of the creatures as they tend to hide themselves from predators. Make sure you return everything to how you found it. This is important to protect the creatures who live there.



Big thinking: rock pools are formed by the wave action on rocks along the coastline.

They are revealed by the tide of the sea – when the tide is in, the rock pools are underwater and the creatures within them can move about freely. However, when the tide goes out, the pools are visible and the creatures within them try to hide – from the sunlight which will evaporate some of the water and from predators such as birds and people. Creatures may hide by clinging to the side of the pool (such as limpets which move around on their slug-like body when under the waves, but clamp to the side when the pool is revealed.) Some of the creatures will move into small cracks in the side of the rock pool so that they cannot be seen from above and to help them hang on (such as mussels). Some creatures hide in the old shells of other snails (such as the hermit crab). Some creatures will hide in the sand at the bottom of the rock pool (such as the common prawn).

Life within a rock pool is always changing temperature, oxygen levels and salinity (saltiness) as well as having to deal with the power of waves crashing into them. The creatures that live there are resilient and adaptable. The best rock pool to find wildlife is the deepest pools near to the low tide mark – be careful as you visit them though as the tide can change without you noticing it.



Big question: 'All things bright and beautiful, all creatures great and small, the Lord God made them all.' God has made tiny worlds that we might be completely unaware of until we go looking for them. I wonder how it feels to be part of the life of a rock pool. I wonder what the creatures in there think of us as we explore them. How do we ensure these tiny worlds are protected? What can we learn about resilience and adaptability from these creatures?

6 Recreating Noah's ark!

You'll need: the people you are with to be willing to act the part of different animals that might have been on the ark (preferably in pairs, but don't worry too much if you don't have enough people); someone to act out the part of Noah.

What to do: God asked Noah to build an ark – which had the equivalent size of four or five football pitches and was several storeys high. It was enormous – it would have had to have been so that the animals (and Noah's family) could have a safe space to eat, rest and play. There would have been arrangements to keep certain animals away from each other – imagine storing the mice next to the cats etc! Try and name a few animals and ask people to act out being that animal. An exasperated Noah would have to try and feed them, clean them out and ensure they didn't eat each other! Can you imagine all the poo! I wonder what they did with it all.



Big thinking: predators are hunters who get their food by eating other animals – they are either carnivorous (meat eaters) or omnivores (meat and plant eaters). They all have special skills which enable them to hunt: amazing eyesight (a hawk can see a mouse from 30 metres in the air and a robin can spot tiny parts of a worm); accurate hearing (a bat uses echolocation to find its insect prey and an owl uses hearing to pinpoint its prey); wondrous smell (foxes can smell ½ metre underground); as well as powerful jaws, claws and teeth to kill their prey.

Prey are the hunted animals and can either be predators themselves (looking for smaller creatures to eat) or herbivores (plant eaters). They are also adapted to protect themselves: moths use their hearing to spot bats approaching; badgers use their sense of smell to hide away from dangers including people; and many creatures have appearances which helps them to blend into their environment and hide.



Big question: looking after animals takes a lot of work, especially if there are large numbers and varying types of them! I wonder if Noah had to intervene when fights broke out? How do we look after animals today? What do we need to do to step in when an argument breaks out? Does God agree with killing animals – are we supposed to be predators? What would it look like for the lion (predator) to lay down with the lamb (prey)? (Isaiah 11:6, 65:25)

7 Animal tracks

You'll need: a large tray with sand on it; different animals or pets (or you may just find it simpler to have one as an example)

What to do: put the sand tray on the floor. Lead an animal (this could be a cat, dog, rabbit, guinea pig etc.) over the sand and watch what markings it leaves behind. A dog's footprints would be very different from a guinea pig's footprints. What else do you notice? How can we tell the difference between the different animals' footprints? How does that teach us to look out for animal tracks in the wild? This could be something to do at a local park with dog walkers – resulting in an interesting conversation about our relationship with our pets and what that says about God's intention for our relationship with all creation – though bearing in mind that not everyone has pets!



This would also be a good experiment to do in the snow and to follow tracks in a Winnie the Pooh type style. You can also lay out trays of sand in woodland places so that wild animals would walk through them and leave their tracks. You could ID them using guides found online. You can also make a plaster cast of the footprint in the sand – the RSPB website has a helpful guide ([rspb.org.uk/fun-and-learning/for-kids/games-and-activities/activities/animal-tracks](https://www.rspb.org.uk/fun-and-learning/for-kids/games-and-activities/activities/animal-tracks)) on this!



Big thinking: tracks from animals allow us to see that they live with us even if we can't see the actual animal – some animals are very secretive (like the muntjac deer), whereas others like to move about in the night (like badgers). Their footprints are like secret signs that they are near – if only we would see them and recognise them.

Some footprints are broad pawprints whereas others are tiny; some have hoof prints whereas others have webbed feet; some reveal the presence of claws whereas others have pointy toes; some are spaced far apart from each other, whereas others are very close together. Sometimes, they even include the presence of other body parts, for example a mouse's tail or a rabbit's hind leg. They all tell us something about the creature they belong to – how big it is, how it travels, whether it can swim, if it is a predator etc.

? **Big question:** how does this teach us to look out for animal tracks in the wild? What does this teach us about how we need to care for animals? In Matthew 6:25 we are asked to trust God to provide for us and not store anything up. This links to us looking after the world fairly and sharing it. When animals move around the world, they leave nothing but footprints – what does our footprint look like – carbon, water, waste? How can we move around leaving less of an environmental impact?

8 Naming animals

You'll need: paper; pens/pencils; a back-up list of animals to check against

What to do: this could be done at a wildlife park, zoo, nature reserve or farm. It would be interesting to have people make a list of animals before and after they went round the animals, to see how their knowledge has expanded! Get everyone to write down a list of animals that they can think of that live in their area or country. You may even wish to break this down into age groups so that you have some data on what animals of different age groups think of!



Big thinking: people's ability to name creatures around them is a measure of their connectedness with the natural world. It is a celebration of discovery and a recognition of where they fit into the grand scheme of creatures: a sense of familiarity as well as understanding. Most animals have two names: their common name and their scientific name, which is normally Latin which provides consistency around the world.

Through naming creatures, we can recognise 'families of animals' for example, the family of bumblebees:

- There are 24 species of bumblebees in the UK.
- All of their Latin names include 'bombus'.
- They are all pollinators.
- They are all designed to gather pollen with their long tongues and carry it back to the hive in their hairy 'bags' on their legs.
- All bumblebee hives include a queen bee (who lives for a year) and female worker bees who search for pollen to feed their sisters – the males live only to serve the queen bee in the hive.
- All the bumblebees have similarities but have differences too – in appearance and behaviour. Their names reflect these similarities and differences.

As we name creatures, we can trace their journey through time and history and recognise their links to other life within creation. Scientists have to observe and research new discoveries carefully before naming creatures – they have to look closely at appearance, behaviour and genetic make-up. They have to know the creature intimately before deciding on its name – a bit like how we often get to know a new pet before naming it.

? **Big question:** if there is evidence that we may have become disconnected from nature, how do we reconnect? What can we do to connect with nature again? We are part of the natural world, inextricably connected to each other and interdependent. When did you last spend some time with nature, just soaking it in, observing it, playing in it? God allowed us to name animals (Genesis 2:19) – how do you think that creates a link between us and animals?

9 Life cycles

You'll need: your bodies!

What to do: talk about how a frog's life cycle consists of three parts: egg, tadpole and adult frog. What other animals can you think of that go through life cycles? Do we as humans?

Act out a frog's life cycle: be a newly laid egg in a frogspawn mass – curl up in a ball; the egg is hatching – slowly open up; tadpole – begin to move around with feet together and hands by your side; growth of back legs – shake legs and begin moving with legs wide apart, arms still by your side; front legs growing – wiggle your arms from the elbows down, upper arms still at sides; you're now breathing – puff up your cheeks as you move around; and finally, fully developed frog – hop around!



Big thinking: metamorphosis is a process of dramatic change within nature: for some insects it changes them into an adult. For a frog this is defined as incomplete metamorphosis where the infant frog develops from an egg into an adult frog: once the egg has hatched, the infant tadpole experiences gradual changes to its body in order to become a full adult. This is also the process for grasshoppers, dragonflies and cockroaches.

A butterfly, however, experiences complete metamorphosis where the egg hatches into a caterpillar which is completely unidentifiable as a butterfly. Only by entering the chrysalis stage can the caterpillar become a butterfly. Within the chrysalis, the caterpillar is completely transformed: groups of cells called imaginal discs hold all the plans for the new adult and as the caterpillar tissues are broken down, the imaginal discs recreate them to form legs, eyes and wings. Some structures don't break down, for example the brain connections remain. A brand-new butterfly emerges transformed but with key elements the same. This is also the process for beetles, bees and mosquitoes.



Big question: God is with us as we change and grow. How does that help us through times where change feels uncomfortable? Jesus said we must be born again (John 3:7) – how does this image of metamorphosis help us to understand this process?

10 Hibernation experiment

You'll need: watertight lidded plastic cups or jam jars; sticky labels and pens; warm water (37 °C); thermometer; varied natural and man-made materials; paper or a line graph; pens

What to do: each person/team decorates a cup/jar like a creature, so they know which one is theirs. They then build a nest for their 'creature' using the materials provided – this nest needs to both insulate and camouflage it. Once the nest is complete, the cup needs to be filled up with water and the starting temperature needs to be measured. Then the temperature needs to be taken every two minutes. The temperature can be recorded on a line graph. Discuss the reasons for the success of the nesting materials after ten minutes.



Big thinking: hibernation enables some animals to deal with the cold temperatures of winter: they find a safe place and reduce their breathing rate and heart rate to the lowest safe level to keep themselves alive. They are not asleep (sleeping animals do not drop their temperatures so much) but they are in a deep state of rest and inactivity. Their bodies are constantly aware of temperature: if it gets too cold, they will need to move in order to stay alive; if it gets too warm, it will be a signal that spring has begun and they can leave hibernation.

This process saves energy, but they will need to have stored enough fat for their bodies to use during this period, which means they tend to eat more before hibernation. Dormice eat so much before they hibernate that they can be double their normal size – which is good because they can hibernate for up to eleven months! Some hibernators, such as squirrels, store food in safe places, and then go out briefly to eat before returning to their hibernation state.

The safe place is different for each creature. Snails attach themselves to a surface and cover themselves in slime whereas hedgehogs build nests out of leaves, grass and straw. Frogs have a deep period of rest in the mud around ponds and lakes which is very similar to hibernation.



Big question: what happens if they can't find enough food? What happens if they are disturbed? What happens if the climate changes and they wake up too early? What do we need in order to survive? We don't necessarily need to hibernate, but what would help us to flourish through the seasons of life? Often, we rush around in life and don't take time to properly rest – but God calls us to times and seasons of rest (Psalm 23:2–3). What does it look like for us to fully rest, trusting in the safety and provision of God?

Bigger activities

- Create a wildlife pond.
- Visit a farm.
- Visit a nature reserve.
- Raise money for an animal charity.
- Visit a wildlife sanctuary/wildlife park/safari park or zoo.
 - Think about the monetary cost of this trip especially for those who are less well off. You may be able to secure funding/financial support for a day trip from your local council.
 - Have a wander (and a wonder) round the park/zoo. There are a whole host of different species of animals throughout the world, some of which are represented in a zoo. The key difference between an animal in the wild and an animal in the zoo is captivity. Some zoo animals are endangered species due to humans poaching them for ivory (rhinos and elephants) or destroying their natural habitats. There are endangered species programmes which aim to build the population back and release them back into the wild. I wonder if you could find a list of animals that are endangered.
 - Tell the story of Noah's ark. You might want to read Genesis 6:9—8:22 together. This is quite a long passage, so you could break it up, act it out together or read it in a family version of the Bible. There were two of each kind of animal on Noah's ark. This must have meant the boat would have been huge, noisy and smelly! I wonder what smells you have experienced at the wildlife park or zoo today? Would there be animals there that would eat some of the other animals? I wonder how Noah coped with this. I wonder what this story could tell us about the need to take care of all animals.
 - Did you know that in the wild, penguins live in very large groups? The male Emperor penguins tend to stay with the eggs in winter – which can be very brutally cold. They rotate as a group so some of their time is spent in the warm centre of the group, and some of it on the outside, which can be very cold and windy! Did you know that one of the ways scientists can track where penguin colonies are is through their poo? Some of the groups are that big that scientists can see their poo from space with a satellite image!
 - After your wander, compare notes on the most amazing animal, the smallest, biggest, funniest, weirdest, most puzzling fact, most worrying discovery etc. What does this variety say about God?

Ask: what questions do you have about this?

Suggestions for specialist input: environmental scientist, zoologist, wildlife expert.



Section 4 Celebration

Celebrate the variety and abundance of the natural world – make a list of all the animals you can think of and the different ways in which we are interlinked.

Tell the story of the good shepherd (John 10) (adapted from Messy Church: Fresh ideas for building a Christ-centred community by Lucy Moore).

Jesus said ‘I am the good shepherd.’ We’re all his sheep. Say ‘baa!’ Jesus looks after us just as a good shepherd looks after his sheep. Jesus knows the name of every one of his sheep.

Call out names of people. They answer ‘baa!’ and come to the front.

Jesus makes sure his sheep have what we need. He leads us to the place where there’s the best grass to eat.

Lead the flock to one side of your gathering.

He leads us to the place where there’s refreshing water to drink.

Lead them to the other side.

Jesus keeps his sheep safe. At night he leads us into the sheepfold, so that we are kept safe from danger—especially from the wolf.

Lead them into a sheepfold made of sticks, logs or whatever you can gather.

Jesus says, ‘I’m the gate for the sheep.’ He lies down across the entrance to keep us safe from the wolf.

Lie down in the entrance to the sheepfold.

When the wolf attacks, Jesus doesn’t run away. He faces the danger and protects us.

Stand up ready to protect the flock.

We know that Jesus really cares because he was ready to die for us on the cross. He gave up his life for his flock. Jesus is our good shepherd; it’s great to be his sheep. Let’s hear it again: Baa!

Reflect together about how we can be good shepherds for all of God’s creatures. How can we make sure they have food to eat, water to drink and are protected from danger?

If you'd prefer to explore an Old Testament passage, read Genesis 1:20–25. Reflect together about how this passage urges us to care for creation – God has asked us to be stewards of it and took after it. What does this mean? What can we do to make a difference to God's world?

You might want to sing together. Some songs could be inspired by the stories you share, such as 'All things bright and beautiful', 'The animals went in two by two', 'God of science' (Rend Collective) and could be incorporated into the storytelling above.

Prayer

Ask everyone to imagine their favourite animal. What do they like about it? Where does it live? How can we help to look after all of God's creatures? What thank you, sorry or please prayers would you like to say to God in response to this? You could pray these out loud, in small groups or silently in your heart.

Finish with the Messy Grace.

Section 5 Eating together

Pick an idea from the Messy take-out menu or another source for outdoor meals, snacks and treats.

Have a range of fruits and cocktail sticks and make your own edible animals.

