



7 Wild on the wing!

By Jane Leadbetter

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Theme: birds

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

Aim: to discover more about the life of birds, how God provides for birds and how we can show love and care for them and their environment.

Science advisors: Petra Crofton and Andy Gosler

Messy Church values:

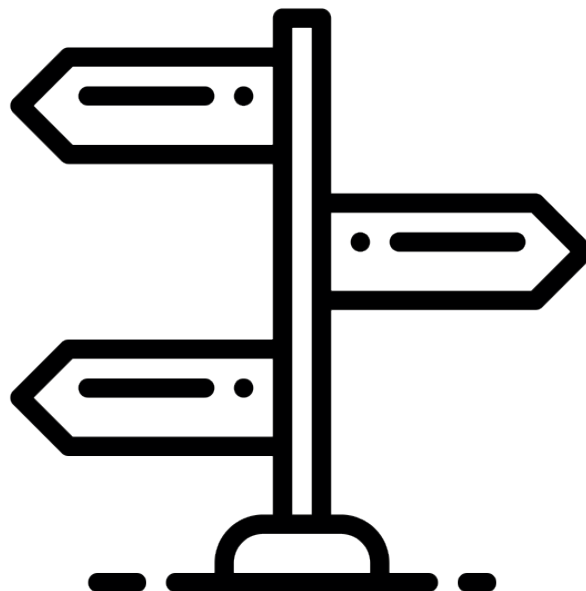
- Christ-centred – discover Jesus’ teachings about faith, as he points out the birds (Luke 12:23–25); the role of birds in the story of Noah’s Ark (Genesis 8:6–12).
- Hospitality – welcoming birds to our environment and caring for them.
- Celebration – the joy of living alongside birds; celebrating the amazing qualities of birds.
- Creativity – discovering the variety of species, colours and behaviours of birds as part of the diversity of the planet.
- All-age – opportunities for adults and children to connect with birds in the natural world.

Locations: anywhere outdoors where there are often birds, e.g. a garden or churchyard, bird hide, shrubbery, hedgerow, beach, marsh, hillside, wood, lakeside, etc.

Section 1 On the move

Pause at different stops on an Adventure around your area. These stops can be used in any order. You could start off by watching Petra Crofton, a scientist who knows a lot about birds and about God on this video (youtu.be/mDwC6Rv62y0). Each stop has suggestions for local experts you could invite to add specialist knowledge and local context to the adventure.

Issue the relevant health and safety warnings needed for your situation.



1 Beside an older building or older church

- Pause and listen and look. Can you hear or see any birds? What sort are they? Did you know that around the world there are over 10,000 different kinds of birds? In the UK, we have around 400 different kinds, but in any one location, depending upon the range of habitats, there might be up to 100 different types. Can you find any evidence of bird life such as feathers or bird droppings? Start collecting feathers on your trail. (Perhaps leave the droppings behind!)
- Look for any birds or nests around your building. Can you spot any holes or gaps in bricks or roofs where birds could nest? Can you spot any human-made nesting boxes?
- Exposure to birds can have a positive effect on people's mental and physical health. Urban areas with a high population of birds can counteract depression and anxiety. How do you feel when you interact with birds?
- What problems might birds cause for humans? (Jackdaws making a mess dropping sticks from the tower, birds getting trapped inside the building, pigeon poo being slippery to walk on, noisy gulls on the roof, dead birds in the gutters...) How is it possible for humans and birds to live together well?
- In Genesis 1:26 it says: 'Then 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 do you think God means by 'ruling over' the birds of the air? What does a good ruler do? Have a look at other Bible translations – do they help you understand what a good ruler is? For example, The Message version of the Bible says that God made people so 'so they can be responsible for...'

Suggestions for specialist input: church gardener, verger, local community ornithologist.

2 Beside a newer building

- Pause and look and listen for birds here. Are there more or fewer birds here or at older buildings? Can you see any reasons why?

- What is it about this new building that helps or hinders wildlife, especially birds?

- If you were to build a new house or tower block to incorporate living alongside wild birds, what would you do with this building? When you get home, could you draw a design for an ideal human/bird house to share with this group?
 - Tip: swallows, house martins and swifts struggle to find suitable nesting sites. The good news is that you can add a 'swift brick' or artificial nest to your building – they work really well. We still need to protect our insects so there is enough food for swifts and swallows but these are a great start!

3 Along a residential road

- Ask what might have been on this road before there were houses for human beings. Talk about different ways human beings are making it hard for birds to survive – how many can you think of? (Building over fields, chopping down trees, using pesticides and herbicides, covering over natural water sources like ponds, etc.)
- How many bird feeders, bird baths and birdhouses can you spot along this road?
- Show a scummy plastic bowl you've had in your garden (leave it out for a few weeks beforehand with some water in and let it grow slime). Talk about why it's important to keep birdbaths clean and to give them a scrub every day (helping birds avoid passing on diseases). Pass round a wire brush to anyone who'd like to practise cleaning up your bowl. Please just use water and a mild washing up liquid to clean the bowl. Have some way of washing hands afterwards.
- Pass round different sorts of birdseeds to feel and smell (suggest not eating them). What kind of bird food suits which kind of bird? The RSPB website has helpful advice on safe food for birds ([rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/feeding-birds/safe-food-for-birds](https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/feeding-birds/safe-food-for-birds)) and when to feed ([rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/feeding-birds/when-to-feed-garden-birds](https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/feeding-birds/when-to-feed-garden-birds)) them.
- When you choose your bird food, please support wildlife friendly farms like Vine House Farm.
- Read Matthew 10:29–31: 'Are not two sparrows sold for a penny? Yet not one of them will fall to the ground outside your Father's care. And even the very hairs of your head are all numbered. So don't be afraid; you are worth more than many sparrows.' If God notices every sparrow that dies, what does that say to you about God's view of birds? What do you think Jesus is trying to help us understand with this little illustration?

Suggestions for specialist input: church gardener, local community ornithologist.

4 In a field or playing field

- Talk about the sorts of birds you would expect to find in this space.
- Draw a rough map the shape of your field. Walk around the space and when you notice a bird, add an 'X' to your map (add it even if you can't see it but can only hear it). Come back together and talk about similarities and differences of what you found; about what makes this a good place for birds or a dangerous place for them; what would they eat here; what was the largest bird you spotted, the smallest, the most surprising?
- If you were a bird, where would you like to live and why?
- Collect bird feathers and create a picture or pattern on the ground with them. Or if they're in short supply, collect natural materials and create a huge feather design with them on the ground. Feathers help birds to keep warm, to fly, stay dry and even hide. Some feather functions remain a mystery. How amazing is it that some songbirds have 2,000–3,000 feathers and a swan over 25,000!
- Did you know the Bible describes God as a lovely feathery chicken? Psalm 91:4 says God 'will cover you with his feathers, and under his wings you will find refuge'!

Ask: what questions do you have about this?

Suggestions for specialist input: local community ornithologist, park warden, park ranger.



5 Somewhere with trees

- Take time to listen. Find a comfortable place on the main pathway to stop and rest as you listen to the wood or forest sounds. What can you hear? Can you hear or see any birds?
- Now take a path off the main pathway and move deeper into the wood or forest. Stop again and listen. Can you hear more or fewer birds? Why do you think this is?
- What do woodland birds eat? (Seeds, insects, caterpillars and nuts.) What types of trees produce what birds need? How will the different seasons support what birds need to survive?
- As well as looking up, remember to look down. Can you see bird poop (guano)? What colours is it? Talk about the white being uric acid, like wee. Can you tell from the darker colours what the bird has been eating?
- Can you find any owl pellets? (As leader you may want to bring some with you – ‘Here’s one I found earlier...’ – owl pellets are not easy to find! You will need to know where to go, e.g. barn owls in deserted barns or tawny owls in wood or park. You can order them online from The Barn Owl Trust. Carefully open one wearing gloves.) What do you find? Arrange your findings on a piece of paper and take a photo. Can you identify everything? (You can use an ID sheet – [rspb.org.uk/Images/Owlpellets_tcm9-133500.pdf](https://www.rspb.org.uk/Images/Owlpellets_tcm9-133500.pdf) – to help!) This is not a quick activity, allow half an hour at least.

- Look for bird nests. Bird nests may be sitting in trees, hanging from trees, inside a tree trunk, perched on top of a tree, in a man-made bird box or in a mossy hollow at the base of a tree and more. Nests are miracles! The most delicately woven nest can stand strong in all weathers! Do birds always nest in sensible places? Be careful where you walk! Talk about what they're made of and ask how birds create nests, so incredibly well, using just their beaks? Provide some paper straws and invite people to try to make a nest with them without using their hands, just their 'beak'.

- Jesus said, 'Foxes have dens and birds have nests, but the Son of Man has nowhere to lay his head' (Luke 9:58). Why did God's own Son not even have a home on earth? How would it feel to be homeless?

Ask: what questions do you have about this?

Suggestions for specialist input: forest rangers; National Trust.

5 Somewhere watery

- Explore your chosen space by water. What birds might you see by water? Can you spot any birds? Talk about their song, feathers, colours, size, length of their legs, what they're doing, where they nest, how they're the same and different from the birds you've seen in other habitats. Are all water birds the same? What about freshwater/seaside birds? What an amazing variety of birds we can enjoy!
- Feed any ducks with sweetcorn, lettuce, frozen peas, oats, seeds and rice. Talk about healthy food options for waterfowl. What is unhealthy? The Canal River Trust has a helpful guide (canalrivertrust.org.uk/enjoy-the-waterways/canal-and-river-wildlife/keeping-our-ducks-healthy/what-do-ducks-eat-6-things-you-can-feed-ducks) of things you can feed ducks.
- Enjoy reading Jesus' words in Matthew 6:25-36: 'Do not worry about your life, what you will eat or drink; or about your body, what you will wear. Is not life more than food, and the body more than clothes? Look at the birds of the air; they do not sow or reap or store away in barns, and yet your heavenly Father feeds them. Are you not much more valuable than they? Can any one of you by worrying add a single hour to your life?' What do you need to hear from these words of Jesus today?

Ask: what questions do you have about this?

Suggestions for specialist input: park warden, park ranger, canal ranger, reserve ornithologists.

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 after exploring your outdoor space

Wherever we are, God is with us. He is with us in the tidiness of the local park and the messiness of the wild open spaces. What has made you feel sad about today? What has brought you joy? Share some wild shouting together. Find a space and count to three. Shout out to God. Shout out what has made you feel sad and what has given you joy. Ask God to be with the sadness and thank him for the joy. Is there anything you would like God to change about what you have explored today?

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

Meet at a location where there are likely to be birds, perhaps a bird hide or nature reserve, perhaps a field or park, a moor or mountain, beach or marsh. You might even want to meet a little while before dawn in order to experience the dawn chorus together, then end with breakfast.

Issue the relevant health and safety warnings needed for your situation.

- Before you arrive, you might want to invite people to come very quietly into the space so you don't scare any birds away.
- Visit your chosen location with a home-made bird pack: binoculars (borrow some); a bird spotting book or app; selection of bird foods such as wild bird seed, sunflower hearts, suet pellets, flaked maize, finely chopped peanuts (chicks can choke on nuts); two shallow reusable plastic trays or plates.
- Some birds prefer to eat on the ground and others prefer to eat higher in the trees. Place a selection of bird foods on two trays and place one on the ground and one higher in a tree. Which birds are you attracting and where? Make a record. Find a comfortable place to settle and spend a few minutes spotting birds, identifying and recording them. Take photos of the birds to post on your Messy Church social media.
- Give everyone a copy of the first verses of Psalm 108 and the suggestions below. Invite them to go into a happy spot for them in this space and spend ten minutes alone or in a small group with the psalm.
 - Make elephant ears so you can hear the birds better. Cup a hand around each ear and move your head from right to left. Does this focus the sound for you? Listen – can you hear any birds singing? Let them be the music in the background as you read the psalm. Read the words slowly three times through and let them sink in.
 - 'My heart, O God, is steadfast; I will sing and make music with all my soul. Awake, harp and lyre! I will awaken the dawn. I will praise you, Lord, among the nations; I will sing of you among the peoples. For great is your love, higher than the heavens; your faithfulness reaches to the skies. Be exalted, O God, above the heavens; let your glory be over all the earth' – Psalm 108:1-5.
 - As you read these words in this outdoors space, keep listening to the birds singing. They're making music that perhaps no other human being is listening to.
 - Another psalm says, 'Let everything that has breath praise the Lord' (Psalm 150:6) What is praise? Can birds do it?
 - What word or phrase in Psalm 108 stands out for you?

- Does anything you see or hear around you in this place make the words more vivid? Where can you sense that 'glory' in what you see or hear around you now?
- Birds often have one repeated call all their lives. What one word or phrase could be your personal way of praising God? Think it, whisper it, say it, sing it or shout it now.

- Play a game of 'bird words' together with any natural materials around like stones, sticks and leaves. The leader whispers something to do with a bird to you and you try to make it out of the sticks and so on within a time limit of two minutes, while others guess what it is. You could use words like beak, feather, claw, egg, nest, wing, fly, flock, etc. For even more of a challenge you could use migrate, fledgling, guano – you get the idea!

- Or play 'bird charades'. Can you silently act out a species of bird so that others can guess what it is? For example: duck, penguin, vulture, peacock, carrier pigeon, owl, turkey, swan, canary, ostrich, kiwi, bald eagle. People may need to look at some videos of the birds so they get an idea of the things they do that stand out!

- Use a selection of activities from section 1 or 3 to explore more about birds.

Wonder:

- Which birds do you think God most enjoyed creating? Why?
- Which bird is God's best creation? Why?
- Which bird makes you smile?
- Which bird makes you laugh? Do you think God was laughing as well?
- What do we not yet know about birds?
- What is the best thing we can do to care for birds?

Section 3 Activities to explore more about birds



1 Bird tools


You'll need: tools such as scissors, tweezers, pliers, straws, chopsticks; food such as marshmallows, rice, juice, pistachio nuts, jelly sweets.

What to do: the feeding habits of each species of bird relies on their type of beak. Beaks are highly specialised tools that determine what birds can eat. Some beaks are great for cracking the hard shells of seeds and nuts, while others are better for probing and grabbing insects.

Woodpeckers have strong beaks that allow them to peck holes in dead trees and grab small insects that are living inside. Kingfishers have a long beak, allowing them to grab fish out of the water while on the wing. An eagle has a sharp, curved beak, which is perfect for tearing the flesh of fish or mammals like hares and roe deer. The long, slender beak of the hummingbird gets deep into flowers to drink the sweet nectar.



Experiment with each tool and foods. Which tool is like the beak of: a hummingbird drinking nectar; an eagle tearing flesh of fish; a robin digging worms out of the ground; woodpeckers prying insects out of dead trees; a finch cracking open seeds? Can you think of anymore?

 **Big thinking:** isn't it amazing that birds have such particular beaks? Otherwise they would struggle to find enough food. Beaks have adapted over a very long time, and they still do. When birds colonise a new type of habitat or if things change in their environment, their beaks change too. Nearly 200 years ago, Charles Darwin discovered that finches on the Galapagos Islands all had different beaks. On islands with insects, the finches had long, thin beaks, and on islands with lots of nuts and seeds, the finches had thick beaks that were strong and short. Today, we see this kind of shape shifting too, but this time it's because birds are in serious trouble. Because the world is getting hotter, some birds grow larger legs and beaks to release heat. Other birds grow smaller beaks to save energy when there is less food for the chicks because of climate change. Knots have long beaks so they can get to shellfish in coastal mud and sand. These clams and mussels are buried deep. Now knots have shorter beaks, they can't quite reach their food. They switch to eating sea grass, as their beaks are quite flexible. But sea grass is not very nutritious, so the birds lose weight. Birds and other creatures suffer because of the climate crisis. We need to look after God's creation.

Some birds are very resilient and adapt to improve their wellbeing. Let's finish with an uplifting story. Over the past 50 years, great tits have developed longer beaks in the UK. But in nearby countries like the Netherlands the same species has stuck with its shorter beak. Scientists have been scratching their heads – how is this possible? At last they know: 50 years ago, lots of people in the UK started to hang up bird feeders. And... longer beaks helped birds get to the seeds in the feeders! In other countries, people don't often hang up bird feeders in their gardens. Clever scientists, and VERY clever great tits!

? **Big question:** what other amazing tasks can a beak or bill have? God's creativity is awesome! Look at the pelican or the flamingo. Do you think we know everything about beaks?



2 Keep it clean

You'll need: large bowl or bucket of warm, soapy water; rubber gloves; bottle brush; used bird feeder; fresh bird seed.

What to do: bacterial and fungal spores can grow rapidly on bird feeders if they are not cleaned regularly. How many birds may visit the same feeder in one day? It is advised that feeders are cleaned every month to prevent spreading disease. If your feeders are old, perhaps invest in new types where dismantling for cleaning is easier. Empty the feeder contents and soak feeders in warm water for ten minutes. Brush clean and air dry. Keep feeder bottle brushes separate to other household brushes. If using a disinfectant, use a mild option and have access to clean water for thorough rinsing. Birds may not return to feeders that have any disinfectant residues. Refill with new bird seeds. Cross contamination on bird tables and baths means similar cleaning is recommended.



Big thinking: feeding our garden birds can be very helpful, especially in cold and harsh winters. But it's important to keep your feeders clean! Viruses and bacteria multiply very quickly, and if birds touch other species around a bird feeder, they can easily rub pest species on to each other. Birds only get this close because there's free food, they would naturally 'socially distance'. It's best to only put enough food in a feeder for two days, so bacteria and viruses don't breed in the feeders. If bird droppings pile up near your feeders, remove them safely or move your feeders around. If you spot a garden bird with very fluffed up feathers, or one that seems very slow and sleepy, it may be ill. Please let the RSPB, a bird protection charity, know.

Viruses are fascinating but can be dangerous too – scientists think that the Coronavirus (COVID) moved from wild bats on to civet cats or pangolins, after which it settled on humans too. If we protect wildlife and their habitats, and don't interfere too much, we also keep ourselves safe from viruses.



Big question: Proverbs 27:23 mentions giving attention to herds. How do we give attention to wild birds? Do we expect others to do this for us? Can we take small steps to give our personal attention to others – both birds, animals and fellow humans? What would be the impact on the environment if no one gave attention?

3 Amazing feathers

You'll need: a variety of feathers (collect naturally, wearing gloves, or purchase from craft supply stores); small example of Velcro; magnifying glass or mobile phone with microscope attachment.

What to do: sort feathers into colour, size and pattern groups. Hold up a feather which might keep a bird warm – would it be good for flying? Could it be a right- or left-wing feather? Could it be a tail feather? Look at a piece of Velcro and try to tear it apart. What happens? Now take a large feather and notice the main shaft down the centre. From this there are small barbs which stick out. Each barb has tiny barbules and barbicels which stick out from opposite sides. They stick to each other like Velcro. Great for keeping in any warmth and keeping water out! Look at the feathers through the magnifying glass or using the microscope attachment on a mobile phone to see their structure in more detail.



Big thinking: feathers are vital for flight and to keep warm (some birds have 50% more feathers in the winter than in the summer). And birds also need them to keep dry (feathers are waterproof), avoid sunburn and to hide from predators (camouflage). Birds use their feathers to show off: male birds of paradise for instance pull out all the stops when they try to attract a mate. The drab females watch the glorious males dance their hearts out and pick the most healthy-looking partner.

Bird feathers get ruffled, worn and torn, and birds replace their feathers at least once a year. This is called moulting. Some birds, like sparrowhawks, moult within days, others, like songbirds, take twelve weeks. The number of feathers birds possess is linked to their size and where they live. Huge swans have 25,000 feathers, while tiny hummingbirds only have 1,000. Cold-loving emperor penguins have 100 feathers per square inch and diving dippers possess a huge number of feathers to stay waterproof. Birds that live on land or in warmer climates need fewer feathers to survive. When a bird has laid eggs, it loses the feathers that touched the eggs during breeding. This is because the eggs need the bird's body heat to keep warm, and feathers form a heat barrier (insulation). Did you know that down feathers feel so soft because they don't have barbicels that make feathers stiff and Velcro like? You may even have a soft feathery pillow at home, made from (eider) down. Did you know some species of dinosaurs had feathers too!



Big question: what can we learn from the fascinating feather design? Can God's creation help us to design more things to help us in our everyday lives? Read Ephesians 2:10 and talk about the creativity we all have, given by God.

4 Plant for our future

You'll need: tree seeds (sweet chestnuts, hazelnuts and acorns are easy to find, but indigenous species are best); clean, recycled plant pot with drainage holes; small pebbles; compost.

What to do: place some small pebbles in the base of a plant pot, fill with compost and plant seeds 2 cm deep. Water and place in a shady part of the garden. Regularly check for watering and when sprouting divide seedlings into individual pots. When it reaches 40 cm tall, replant it in the ground. Trees are an important part of bird landscaping, and the right trees can meet all the needs of a bird for food, water, shelter and nesting sites.



Big thinking: tree seeds like acorns are very popular with squirrels and jays. Jays even carry the name acorn in their scientific name (*Garrulus glandarius*, which roughly means 'noisy/chattering acorn lover'). Jays bury acorns in the soil, building up a larder to survive the winter. But they often forget where they've hidden them and so the acorns grow into oak trees. Oak trees are amazing for wildlife like bats, beetles and moths. Jays are, in fact, nature conservation heroes!

Hazel trees are good for wildlife too. They grow tall or form leafy hedges, and if you cut them back, they quickly grow again. This is called coppicing. Coppiced hazel is good for butterflies and moths (the caterpillars feed on the leaves) and for birds that nest on the forest floor, like the rare nightingale, nightjar and yellowhammer. They all find shelter in coppiced hazel. And hazelnuts are the number one food source for hazel dormice, another rare species.

As for the sweet chestnut, this tree was introduced to the UK by the Romans, who loved chestnut flour, ground from the nuts. But as this was a very long time ago (2,000 years), the sweet chestnut now counts as a native tree species. Did you know horse chestnuts were introduced too, about 400 years ago? So far more recently than its cousin, the sweet chestnut. Insects feed on the pollen of horse chestnut flowers ('candles') and deer and other animals eat conkers, so again it's quite a good tree for wildlife! Good luck with your tree planting! P.S. When you plant your seed, make sure it is in good condition (or plant two, just in case).



Big question: we want immediate results in our lives and patience and waiting is not easy. But a strong and healthy tree is worth waiting for. Read Psalm 1:3 and talk about prosperity.

5 In sight

You'll need: five plastic bird feeders or recycled plastic bottle feeders; red, green, blue, yellow non-toxic paint; paint brushes; water; towels.

What to do: paint the plastic body of each feeder with one of the colours. Be careful not to paint around the feeding holes. Leave one feeder clear. Leave to dry in a ventilated space. Fill with sunflower heart seeds and evenly hang at a similar height. Check feeders each day to see which coloured feeder becomes empty first. Birds can see colours better than humans! They rely on colours in their environments in many ways. Bright fruit means ripeness; bright flowers may be filled with nectar; changing foliage colours indicate change in seasons and migratory patterns. Different birds are attracted to different colours.



Big thinking: thanks to an extra type of (light sensitive) cell in their eyes, birds also see ultraviolet light – the kind of light that causes sun burn. UV light reveals more colours than we can see. And birds' eyes are generally much bigger and sharper than ours. Has your teacher ever asked you to be eagle- or hawk-eyed? Eagle-eyed means that you notice everything, even tiny details. Hawk-eyed means that you can see everything from a very long distance.



Big question: is there a colour which birds avoid? What could indicate danger? Do we talk to God about our fears and anxieties? Read Psalm 56:3 and talk about who you trust in dark times.

6 Recycle

You'll need: clean, washed plastic drinks bottles or cartoons, yoghurt cartons; scissors; chenille sticks; colourful stickers; tape; string, wire.

What to do: reuse some household items to care for birds such as making bird feeders and bird baths. You could add colour to attract birds in your community (see activity 5). Protect delicate bird beaks, legs and feathers by eliminating sharp or jagged edges.

You can find some designs on the web for both bird feeders (How to make a bird feeder – woodlandtrust.org.uk/blog/2019/01/how-to-make-a-bird-feeder) and baths (How to make a bird bath – rspb.org.uk/get-involved/activities/nature-on-your-doorstep/garden-activities/maketheperfectbirdbath).



Big thinking: recycling is brilliant, and in nature, everything gets recycled! From stardust to bones, to rocks and sand, to wood and (rotten) food. God is our greatest recycler and without his army of cleverly created recyclers like earthworms, dung beetles and soil bacteria, our planet would look like a huge smelly junkyard!

Did you know birds are good at repairing old nests before they reuse them, especially large birds of prey like eagles. They need large nests, often made from branches. Building a nest takes a lot of time and energy, so they reuse and repair their wooden homes.

Better even than recycling, for humans at least, is to 'reuse, reduce and refuse' stuff, especially packaging and goods that don't break down naturally. You need to be a bit clever and disciplined to start with, but it's fun and a great way to save space and money. Can you go without buying new clothes for a year? If you are growing fast, you may get clothes from older children to replace things you've grown out of or if trousers or socks become threadbare.



Big question: there are so many ways we can help the environment. Even the smallest step can have significant results. Read Jeremiah 18:1–6. Can you think of other creative ways to 'reuse, reduce and refuse' stuff? Can you repair and reuse anything in your bedroom or shed?



7 Flying prayer

You'll need: paper; scissors; colouring pens.

What to do: fold a paper aeroplane but fringe the wings to make it bird-like. Draw a bird's head on it and feathers. Write a prayer on the underside. Thank God for the birds and the joy they bring to our lives. Fly the bird, wildly, outdoors. Use this paper 'bird' in the celebration section.



Big thinking: most birds can fly and only birds that are better off without large wings have lost the ability to fly, like ostriches, emus, rheas and the cassowary, a bird that lives in Australia and New Guinea. These birds are all very strong and aggressive, so they easily ward off predators. They don't need to feed on the wing, like swallows, as they forage on the ground. All these flightless birds live in hot climates, so there is no need for them to migrate to warmer areas in winter. Ostriches in particular are strong and heavy birds built for running. As they aren't bothered by heavy feathers, they run really fast – up to 43 miles an hour! Many birds do move, however, and for them feathers are vital. The most impressive migrant is the Arctic tern – a small white bird that covers a distance of up to 38,000 miles a year! It breeds on beaches between northern Europe and the North Pole and makes the most of another summer by flying to the South Pole in the autumn. How do we know all this? Bird scientists (ornithologists) have been putting tiny tracking devices on the backs of birds like the Arctic tern and follow their exact migration routes.

? **Big question:** birds have served as prototypes for various models of aeronautical design. The very first aeronautical designs looked to nature before science. Even today, the aircraft industry tries to emulate birds and other mammals. How do you feel about the skies sharing birds and machines?

8 Wool sack

You'll need: left over strands of knitting yarn; pet hair; sheep wool; feathers; string; dried grasses.

What to do: start a collection of suitable nesting materials to offer wild birds in the spring. Don't put them in a net bag as birds can trap their feet. Different bird species will choose different materials. Record the most popular 'furnishings'.



Big thinking: nest building is a real art! Penduline tits know all about this. These smart little birds breed in Europe and weigh less than ten grams (the same as three 20p coins!). They may be small, but they are very clever architects! First, they create amazing cave-like nests with animal hair, wool and plants, held together by spider webs! The nests hang down and the obvious entrance is on the top and leads to a small nest chamber. Then, if a predator enters, the tits quickly move into a secret room underneath, where they are safe. Did you know that in the past small children would wear these nests as cosy slippers?

Another amazing nest builder is the bower bird. The male creates a huge display (a bower) with leaves, berries, flowers and other colourful objects. Once he has impressed a female, he mates with her, but then goes back to his display to attract more females! Meanwhile, the female lays her eggs and raises her young all by herself.

Our own wren, a small brown garden bird, builds impressive nests too. They may not be very pretty, but a male wren kindly builds several nests with moss, grass and leaves and lets the female choose the best one. She then lines her nest with feathers before she lays her eggs.



Big question: some birds, such as swallows and house martins, make nests with mud. How can we ensure this material is supplied during nesting seasons?




9 Quill

You'll need: a feather; scissors; ink (or food colouring or paint); paper.


What to do: write a poem thanking God for your favourite bird. Describe the attributes of your chosen bird and share your praise. Cut the end of the feather quill diagonally, snipping a slit along the quill to create an ink channel. If there is little room for fingers to hold the quill, cut some bottom feathers away. Dip in ink to write.



 **Big thinking:** what is your favourite bird? There are so many awesome birds, it's almost impossible to pick just one, don't you think? Do you like birds of prey like the powerful golden eagle or the handsome peregrine, which happens to be the fastest bird on the planet? Naturally, peregrines breed on cliffy coasts where they hunt for seabird chicks. But they have discovered our cities and now breed on cliff-like structures such as cathedrals, other large churches and hospitals. It's a smart move as cities are full of plump pigeons and other birds.

Or do you prefer garden birds, like robins or goldfinches? You can attract these lovely little finches by hanging up a feeder with nyjer seed in your garden.

But perhaps you'd rather go to the coast to look out for seabirds like gannets? Gannets are fantastic divers – their slender bodies, with long necks and pointy beaks, become like speedy arrows as they dive for fish. They are fast indeed: up to 60 miles per hour! To reduce the impact when they hit the water as they dive, gannets have developed special neck muscles and a spongy bone plate at the base of their beak. And they have special membranes that protect their eyes. Gannets breed together on rocks, like Bass Rock in Scotland. Do bring a peg if you are planning to get near a gannet colony, as the smell of fish, guano (bird poo) and salty sea air is rather overwhelming!

 **Big question:** can you think of any historically important documents which were written with a quill? How was the Bible written?

10 Territory game

You'll need: a play parachute.

What to do: gather all-ages in a circle holding the parachute at waist height. If the parachute is too tight, invite everyone to take half a step towards the middle. Give everyone the name of a bird. Remember who you start with. Give out four bird species, then repeat, for example 'pigeon', 'sparrow', 'magpie', 'thrush', then again 'pigeon', 'sparrow', 'magpie', 'thrush'. But give the very last person a solitary bird species of their own, a species which likes to be territorial such as robin or blackbird.

When the parachute is raised high call out a bird and those with that bird name run under the parachute to the other side, grabbing the edge of the parachute ready for the next call. When the leader calls the name of the solitary bird just one person runs under the chute. When the leader calls 'flock' EVERYONE runs under the chute and to the other side.



Big thinking: birds are a bit like people; some prefer to keep themselves to themselves, like bearded vultures or robins. These solitary birds will guard and defend their territory to protect their food supply. Other birds love hanging out in groups, like starlings. Have you ever seen a humongous group of swirling and dancing starlings? Perhaps in November or December, at dusk? Starlings move to their roosts in groups of up to 100,000 birds where they spend the night together. As they fly, they make amazing patterns in the sky, like aerial acrobats. This spectacle is called a murmuration of starlings. The reason they fly and sleep together is to avoid being eaten by a peregrine or other predator, as there is safety in numbers, and to keep warm at night!

Each bird has its own amazing way of living and surviving. God has created each species unique and wonderful. Have a look online or in a book – you will discover all sorts of fascinating facts!



Big question: read Mark 1:35. When does God want us to be alone with him? How does he want us to spend that time with him?

Bigger activities

- Visit a zoo, bird of prey centre or aviary.
- Join a local or national ornithologist club.
- Fundraise for a bird charity.
- Sponsor/adopt a bird.



Section 4 Celebration

What have you learnt about birds today?

What do birds eat? Where do they find their food? Where do they sleep? How do they make nests?

Read Luke 12:23–25

For life is more than food, and the body more than clothes. Consider the ravens: They do not sow or reap, they have no storeroom or barn; yet God feeds them. And how much more valuable you are than birds! Who of you by worrying can add a single hour to your life?

What word or phrase stands out to you?

What is Jesus trying to teach us about God's love for us?

If you'd prefer to explore an Old Testament passage, read Genesis 8:6-12.

Gather everyone around and bring any paper prayer birds from activity 7. When you read about the raven and the dove that fly from the ark, invite everyone to fly their paper 'birds'. The dove returns as there is no land so invite everyone to collect a paper 'bird' to return it. When you read how the dove flies away to find land for the second time, invite everyone to fly their paper 'birds' once again. This time, when collecting their bird, invite everyone to return with a leaf as well. The dove symbolises hope. As the dove gave hope of land ahead and a new start to those on Noah's ark, so God wants our care for birds and all his creatures to bring continued hope for a sustainable, healthy world where we all live respectfully alongside one another.

Song Suggestions

'Make a Difference' – Fischy Music

'Wonder of these Days' – Fischy Music

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.

Themed ideas for this unit might include free range eggs cooked as omelettes, hardboiled, poached, baked in a potato in foil in hot ashes or fried. Shredded wheat Fair Trade chocolate nest cakes with organic mini eggs could work well too. You could take the ingredients for feeding ducks (see above in ‘somewhere watery’, section 1) and invite people to combine some or all of them to make a tasty snack for humans (be very scared). I hesitate to suggest chicken nuggets, unless they are veggie nuggets!

