



Avon
Wildlife Trust

BATHSCAPE
LANDSCAPE PARTNERSHIP



STEP BY STEP GUIDE

FOR PLANNING YOUR VISIT

*The following should assist you
in planning a school trip to
Carr's Wood, Twerton Roundhill
or other local nature spots.*



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Build the case

Formal curriculum links –

Nature-based school visits support learning across the curriculum. Our Nature-based Learning Curriculum Links document outlines many of these.

Hidden curriculum links –

Visits to local wildlife sites show children that:

- ✓ We deserve enriching experiences
- ✓ We live in a beautiful area which is worth exploring
- ✓ We believe nature is amazing and important to protect



Engagement with learning

– Learning in natural environments:

- ✓ Builds teacher-pupil and pupil-pupil bonds
- ✓ Creates 'sticky' learning, that children will remember back in class
- ✓ Develops children's confidence



Build the trip into your planning

School visits are often done as a ‘wow’ at the start of a topic, to engage learners and inspire learning throughout the term. School visits closer to the end of a topic can consolidate and deepen learning.

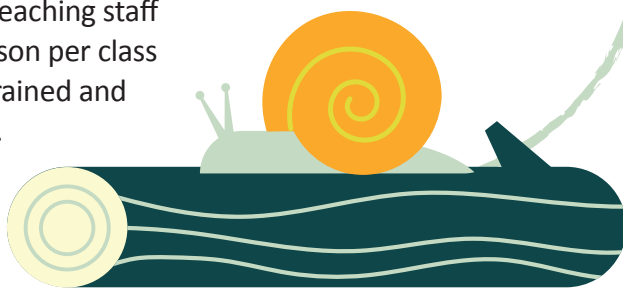
You should also consider what time of year is best for the visit – both in terms of what animals and plants you are likely to see, and the ground conditions.



Thinking creatively,
you can use your
visit as a stimulus
for learning across
the curriculum back
in school.

Health and Safety

- You should always visit the local wildlife site yourself, walk the route and complete your own risk assessment. We have created risk assessments specifically for **Carr's Wood** and **Twerton Roundhill**.
- You school will have set adult:child ratios for visits. For visits to natural environments we recommend an adult:child ratio of 1:10 at KS2, and 1:6 at KS1 with a minimum of one teaching staff per class. One person per class must be first aid trained and carry a first aid kit.



Reverse Risk Assessments

If you are meeting any resistance to your visit, you could consider doing a '**reverse risk assessment**'. This is a thought provoking way to highlight the benefits of school visits, by thinking of the risks to children of not going on the visit. In this case the risks might include:

- Lack of confidence in being in nature – therefore missing out on the proven physical & mental health benefits of spending time in nature
- Weak ability to assess risk when outside –therefore more likely to have a serious injury in the future
- Lack of engagement in learning – leading to lower attainment

Activities

On your pre-visit to the local wildlife site, scope out at least two places where your whole class can comfortably and safely stop to listen, where they can all see and hear you. This will help inform where you start and finish activities.

We have suggested activities for visits to Carr's Wood and Twerton Roundhill, however each season will bring new learning opportunities that you can build into the plan. One of the great and challenging things about teaching in nature is that you can never quite predict what you'll encounter – stay open to these opportunities to build children's connection with nature, whether it's an impromptu rain dance or a close encounter with a curious squirrel!

Resources

There are plenty of great free printable nature ID guides and worksheets online.

Try [wildlifewatch.org.uk](https://www.wildlifewatch.org.uk) and [treetoolsforschool.org.uk](https://www.treetoolsforschool.org.uk) as a starting point



Put together a basic wild school visit kit bag

Our top must have items are:

Sit mats (these can be cut out of cheap camping mats)

Whistle (to save your voice – wooden bird song whistles are lovely)

Laminated ID guides (for trees, birds and minibeasts)

Bits of cardboard (you can use these for impromptu poetry or drawing)

First aid kit

Documenting your visit

Photos and videos are a great way to share the visits with parents and the rest of the school community. They can also be a useful stimulus for follow up work in class. As well as a prompt for reflecting on the visit with the class, photos of plants and animals found can be used to create fact files and posters, whilst photos and videos of scenery can be a stimulus for art or poetry.

An illustration of a dark blue smartphone and a white Polaroid photo. The smartphone screen shows a green background with a blue flower and a blue bud. The Polaroid photo shows an orange butterfly with black markings on a green background. Both are set against a background of yellow wavy lines.

If your school uses social media, please tag @bathscape and @avonwt in your posts and we might retweet you!

ROUNDHILL ACTIVITY PLAN FOR SCHOOLS



A wildflower-rich hilltop with 360 degree views across Bath and the surrounding countryside, Twerton Roundhill is an iconic part of the Bath skyline. It is one of a series of natural roundhills, formed from harder rock than the land around it. It was used in Saxon times as a meeting and ceremonial site. Roundhill is a fantastic place to spark children's fascination with their local historical environment, and their place within it.

This activity plan is for a 1.5-2hr visit with KS2 groups, and can be easily adapted for younger children.

Getting there, accessibility and health and safety

There are lots of routes to the top of Roundhill, and it is hard to get lost! The paths to the top are quite steep, and can be slippery and muddy in winter or very bad weather. It is popular with dog walkers and so there may be dog poo and dogs off leads.

There is a sample risk assessment at the end of this pack.

Learning opportunities

PSHE: Communication, trust, resilience, confidence, risk awareness, wellbeing in nature

Science: Habitats, species identification, classification, adaptation

Maths: Estimation of distance and area

English: Creative writing, persuasive writing

History: Local history, land use change through time

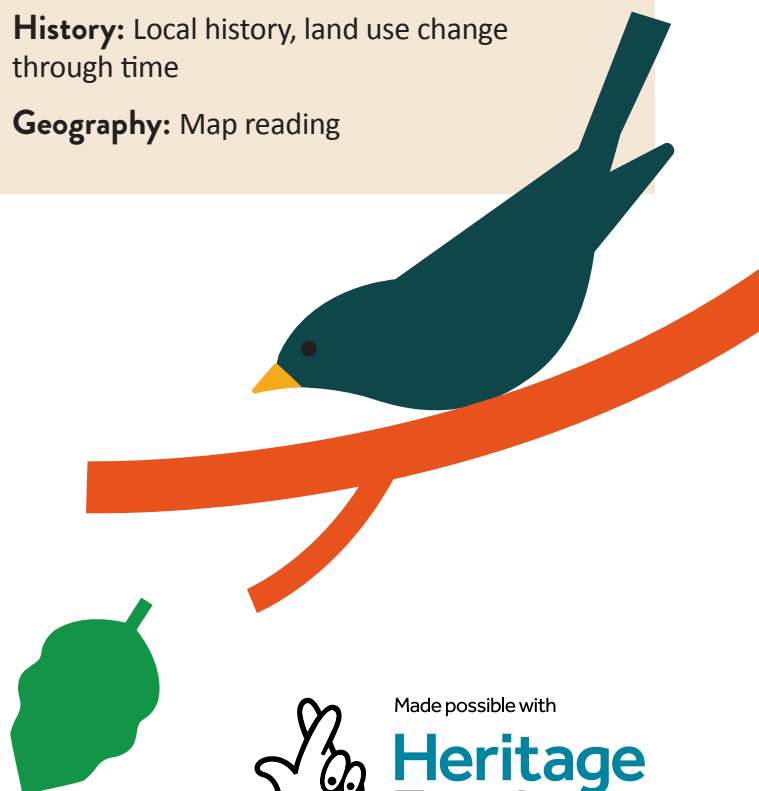
Geography: Map reading

Postcode: BA2 1LG

(vehicle access point on Mount Road, where there is also street parking)

OS grid ref: ST724633

What 3 Words: drives.ships.meal



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PREPARING FOR THE VISIT



Pre-visit activity ideas

Virtual tour: The University of Bath have created a web-based tour of the Roundhill. The tour is a 360 view of Roundhill. The VR is a 360 degree view from the top of Roundhill, with imbedded audio/visual factfiles. This can be used on a web browser, at this link. <https://www.thinglink.com/mediacard/1426538513863540739>

History: Show students old maps of Twerton, using Google Earth or the Know Your Place website kypwest.org.uk. How has this area changed? How have things changed for humans and for wildlife since then? Teach or refresh Anglo-Saxon curriculum content.

Geography/maths: Can you find Roundhill on a map? Can you estimate the area of Roundhill? Can you estimate the length of the walk we will be taking? If it takes us 5 minutes to walk 100 metres, estimate how long the walk will take. What if we stop for 30 minutes half way around?

Citizenship: Watch and discuss this Countryside Code video <https://www.youtube.com/watch?v=ZHBVMNROsSI>.

Science: Teach or refresh nature-related topics and vocabulary, e.g. species identification & classification, habitats, adaptation, evolution and inheritance.

KIT LIST

Essential kit:

Clipboards, pencils, activity sheets and ID guides, bug pots, magnifying glasses

Optional kit:

Sit mats, white sheets, sweep nets, ID book

Advice to parents:

The site can be muddy so wellies or old trainers are recommended. There is not much shelter from sun, wind or rain so please dress children appropriately.



Activity ideas to continue the learning

Take action for nature!

- Anti-litter campaign – pupils could organise a litter pick, speak in assembly, make posters, or write for the school newsletter.
- Do a survey to see what habitats your school grounds have. How does it compare to Roundhill? How could we make more homes for nature? Refer to Wild Schools Advice Pack.
- Nature challenge – can you create something which helps nature in your school, garden, local park.
- What route would an animal take to get from your school field to Roundhill? Can you create mini habitats for an animal along its route to Roundhill?

History:

- Ask a relative about their memories of Twerton Roundhill and local nature. Did they play there as a child? What games did they play? What wildlife did they see there?

Science:

- Make a species fact file, species top trumps, or create a food web from species found on visit.
- Super bug! Create an imaginary invertebrate which is perfectly adapted to live in a certain habitat.

English:

- Persuasive writing – why should people visit Roundhill?

Art:

- Saxon Art & culture – create art and dye fabrics using natural dyes.



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FACT FILE: ROUNDHILL



Nature in Roundhill

Roundhill is wonderful for wildlife!

Interesting plants grow here because the rock underneath is limestone, changing the soil pH. Look out for cowslip, orchids, knapweed, rock-rose, scabious and many others.

In summer the grassland buzzes with butterflies such as the common blue, meadow brown & marbled white, as well as bees, grasshoppers and many other invertebrates.

From the top of Roundhill you can see patches of woodland. These are remnants of a huge wood that used to cover this whole area.



History

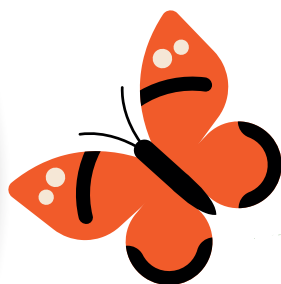
Twerton Roundhill has a long history as a meeting and ceremonial site. It is an obvious landmark, and a number of prehistoric routes meet on the Roundhill. It was used in Saxon times as a gathering place for Hundred Meetings, where matters of administration and justice were decided.

Near Roundhill is the West Wansdyke linear earthwork, the 'lost' medieval village of Barrow, Culverhay Norman Castle, and the village of Englishcombe, which is mentioned in the Domesday Book and has a church dating back to the 11th century.

In the Domesday Book Twerton was known as Twyvertone. In 1086, the village was one of the larger settlements noted in Domesday, with 32 households! The village was known as a centre for agriculture, and in particular wool production (there were a number of mills, making woollen cloth). This died out in the 16th and 17th century.

Geology

The conical shape of Twerton Roundhill was formed as the soft clays that once surrounded it eroded away, leaving a peak of Great oolite rock or Bath stone, which is a type of limestone.



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MAP: ROUNDHILL



Activity: *Super charge your senses - page 6*

This is a 'mini-mindfulness' moment where children will focus on different senses one at a time (sight, sound, smell).

Activity: *Walking challenges - page 7*

Fun challenges to keep students focused and engaged whilst walking to and around the site.





Activity: *Alien Explainer - page 8*

A fresh take on the classic scavenger hunt, focusing on tiny, beautiful natural items. You will need match boxes or other small boxes or bags for this activity (the smaller the better).

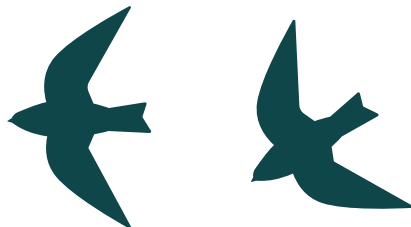
Activity: *Poetry - page 9*

When the Saxons arrived in Bath, the city was in ruins following the collapse of the Roman Empire. This extract is from an Anglo-Saxon poem from the 8th century called 'The Ruin' and is widely believed to be referring to the city of Bath. The Saxon manuscript of The Ruin was damaged, and so some parts of the poem are missing.

Activity: *Nature Walk - page 10*

Split into groups and ask students to walk down the hill in different directions - see map. (Each group with an adult). Take wildlife spotter sheets, bug pots, magnifying glasses, and the 'we saw, we felt...' sheets. Encourage learners to use their 'supercharged senses' and look closely under logs, in piles of leaves and so on in order to find interesting minibeasts. You can also place a large white sheet underneath a bush and shake the branches to see what wildlife falls onto the sheet.

Each group records what nature they see, hear and touch, as well as how they are feeling. When the group gathers back together discuss the similarities and differences and why these might be.



SUPERCARGE YOUR SENSES!



Find a quiet spot in the where the group can gather. Tell the group that to be the best nature explorers, we need to supercharge our senses so that we can hear, see and smell better. Animals in the wild need to use all their senses in order to hunt for prey, know when predators are coming, find food, and to communicate with each other. Most humans are rubbish at using our senses, but we can get better very quickly with these simple exercises!

Smell



- Take a deep breath. Does it smell different here than at home or school?
- Pick up a handful of earth or a pile of leaves. Put your nostrils close, breathe deeply. You are smelling millions, trillions of tiny miniscule plants, animals, fungi & bacteria!
- **Your nose is now supercharged!**

Sight



- Look as far into the distance as you can. What can you see? Now look further... what about now?
- Now get your eyes as close to the ground as you can. What is the smallest thing you can see? Can you see anything moving?
- Now look up into the air. Can you see anything in the air? A bird, a floating seed, dust?
- **Your eyes are now supercharged!**

Sound



- We are all going to close our eyes and breathe slowly & quietly
- Ignore human sounds – traffic and people. Can you hear any birds? The wind?
- Without opening your eyes, try and work out where each sound is coming from –close or far away? behind or in front of you? above or below you?
- **Your ears are now supercharged!**



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WALKING CHALLENGES



Print and cut these up to hand out during the visit – can be used individually, in small groups or as a whole class



How many different shades of green can you see?



Can you walk without making any sound?



Can you see anything natural which starts with the same letter as your name?



Imagine you were here 100 years ago. What would be different?



How many different colours can you see?



Imagine you are an owl: what tree would you perch on and why?



Brush your hand through some leaves or grass. What does it feel like?



How many different shaped leaves can you collect from the floor?



Imagine you have to sleep here for the night? Where would you make your den?



What could we do to make this place better for wildlife?



Can you invent a rhyme about Roundhill?



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ALIEN EXPLAINER

- *Imagine you are a visitor from Mars, a cold icy, rocky, dusty place. You are **AMAZED** by the nature on planet Earth, but it is too strange and beautiful to put into words (especially in Martian – you can try...even a love poem sounds ugly in Martian).*
- *But you have a small box so you can take some samples back home, hidden in your space socks, to share the wonders of Planet Earth with the great Martian scientists, artists and historians.*
- *You only have space for the most tiny, beautiful and strange items.*
- *Check with a (human) adult before you pick anything (in case it is poisonous or rare).*



THE RUIN

Wondrous is this foundation – the fates have broken
and shattered this city; the work of giants crumbles.

The roofs are ruined, the towers toppled,
frost in the mortar has broken the gate,
torn and worn and shorn by the storm,
eaten through with age. The earth's grasp
holds the builders, rotten, forgotten,
the hard grip of the ground, until a hundred
generations of men are gone. This wall, rust-stained
and moss-covered, has endured one kingdom after another,
stood in the storm, steep and tall, then tumbled.
The foundation remains, felled by the weather,
it fell.....

grimly ground up

.....cleverly created....

..... a crust of mud surrounded ...

..... put together a swift

and subtle system of rings; one of great wisdom
wondrously bound the braces together with wires.

Bright were the buildings, with many bath-houses,
noble gables and a great noise of armies,
many a meadhall filled with men's joys,
until mighty fate made an end to all that.

The slain fell on all sides, plague-days came,
and death destroyed all the brave swordsmen;
the seats of their idols became empty wasteland,
the city crumbled, its re-builders collapsed
beside their shrines. So now these courts are empty,
and the rich vaults of the vermilion roofs
shed their tiles. The ruins toppled to the ground,
broken into rubble, where once many a man
glad-minded, gold-bright, bedecked in splendor,
proud, full of wine, shone in his war-gear,
gazed on treasure, on silver, on sparking gems,
on wealth, on possessions, on the precious stone,
on the bright capital of a broad kingdom.

Stone buildings stood, the wide-flowing stream
threw off its heat; a wall held it all
in its bright bosom where the baths were,
hot in its core, a great convenience.

They let them gush forth

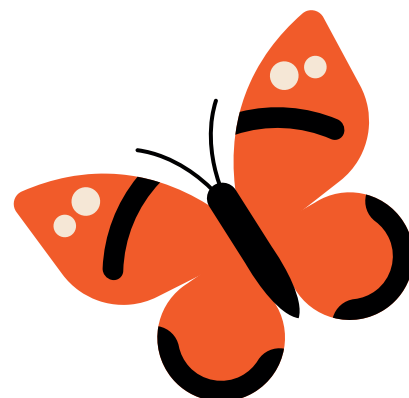
the hot streams over the great stones,
under...

until the circular pool hot...

.....where the baths were.

Then....

..... that is a noble thing,
how the city



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REFLECT ON THE VISIT



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We saw...



We felt...



We heard...



We touched...



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Activity	School visit to Carr's Wood		
Location	Carr's Wood		
Date of activity	Ongoing		
Date of assessment	June 2021	Assessors	Avon Wildlife Trust

Risk Assessment form

Category of risk	Description of risks or hazards (anything that may cause harm)	Who is at risk	Risk rating before control			Control measures to reduce risk or harm (add or delete as appropriate)			Risk rating after control		
			Likelihood	Severity	Rating				Likelihood	Severity	Rating
2	3	4	5	6	7	8	9	10	11		
Slips / trips	- Uneven ground - Roots/stones - Slippery/wet/icy surface - Steep slopes	Children, staff, volunteers	3	3	9	- Appropriate clothing & footwear advised - Plan route in advance - Site explanation & pointing out hazards	2	3	6		
Falls from / onto	- Unprotected drops - Loose branches - Trip hazards - Dead / diseased / fallen trees	Children, staff, volunteers	3	4	12	- Appropriate clothing & footwear advised - Dynamic risk assessment, site explanation & pointing out of hazards - Do not conduct activities underneath diseased or dead trees	1	4	4		
Disease / infection (Rabies, Weil's, Lyme's, etc)	- Weil's disease (rat borne) - Lyme's disease (tick borne) - Liver flukes (cattle troughs) - Bacteria and viruses - Animal faeces	Children, staff, volunteers	2	4	8	- Staff and volunteers to wash hands before offering snacks. Provide mobile hand washing- bowls, water, hand-wash, or antibacterial gel if having snacks or foraging - Remind children to avoid hand-to-mouth contact during session - Appropriate clothing (long sleeves and trousers in environments likely to harbour ticks) - Be vigilant about animal excrement – tutor carry bags/gloves to pick up/move animal faeces - Ensure any potentially affected equipment is cleaned regularly (half termly) or sterilise/replace after it has been contaminated - If in area known to harbour ticks, advise parents on how to check for ticks and include tick removal tool in first aid kit	1	4	4		
Insects and plants (stings, irritants, thorns)	- Horseflies - Hayfever - Bees & wasps	Children, staff, volunteers	3	3	9	- Staff and volunteers to wash hands before offering snacks - Remind participants to avoid hand-to-mouth contact during session and not to eat anything without permission - Awareness of severe allergies	2	3	6		

	- Poisonous and irritant plants (inc umbelliferae such as giant hogweed) - Bacteria from thorny plants						- Provide mobile hand washing- bowls, water, hand-wash, or antibacterial gel before snack time - Pre-site assessment to identify any toxic or irritant plants and fungi, or risky areas for potential wasp nests - Water carried to rinse off hogweed sap if necessary			
Weather Hypo - cold conditions Hyper - hot conditions	<i>Hypo:</i> - Hypothermia & frost bite <i>Hyper:</i> - Heat stroke, heat exhaustion, sun burn <i>Rain:</i> - Slippery, mud <i>Wind:</i> - Falling branches, wind-borne objects	Children, staff, volunteers	2	4	8		- The weather forecast must be checked in advance. Plan B or cancel in case of severe weather - Avoid wooded areas in strong winds (25mph or GF6 and above) - Appropriate footwear & clothing - Survival pack with foil blanket - Shelter from cold/wet weather - Shade from hot/sunny weather - Carry plenty of water and sunscreen in hot weather -Children to wear hats and sun cream	1	4	4
Sharp objects and whiplash of branches	- Cuts - Injuries to eyes, face and body	Children, staff, volunteers	2	3	6		- Take care - Use help where necessary - Awareness of others - Hand branches to person behind you	2	3	6
Manual handling	- Injury to self & others	Children, staff, volunteers	3	3	9		- Transport items in small loads - Carrying routes to be planned	1	3	3
Equipment	- Injury to self or others	Children, staff, volunteers	2	5	10		- Group leader to demonstrate equipment use and safe handling prior to children using all equipment - Appropriate footwear - No use of equipment without tutor or adult supervision - Safe storage of equipment	1	5	5
Strangers	- Abduction - Abuse - Injury	Children, staff, volunteers	2	5	10		- Working groups of 2+ - Tutor and adults vigilant - Children reminded about 'Stranger Danger' and not talking to strangers who may be at the site - Children/whole group 'stay where you can see an adult' - Move group and call 999 if threatened by member of public	1	5	5
Getting lost	- Abduction - Abuse - Injury	Children, staff, volunteers	2	5	10		- Map of site carried by group leaders - Group leader to complete head counts on arrival, departure and when moving between locations - Children/whole group 'stay where you can see an adult'- parent/carer or facilitator - Ratio of supervision must be based on school's policy for Learning Outside the Classroom - Groups reminded of behaviour and staying together	1	5	5

Poisonous animals - adders	- Bites - Infection	Children, staff, volunteers	2	4	8	- Never handle snakes - Wear appropriate clothing and footwear (no open toed footwear if walking through long grass)	1	4	4
Dogs	- Attack - Bite - Faeces	Children, staff, volunteers	2	4	8	- Brief group not to approach, talk to or touch dogs. If approached stand still & cross arms - Move activity away from area with potentially aggressive dog - Clear dog or cat faeces using disposable gloves and poo bags - Anyone who may be pregnant must not handle faeces	1	4	4
Rubbish/glass/needs	-Cuts -Wounds	Children, staff, volunteers	2	3	6	- Thorough site inspection prior to activities. - Staff to wear gloves and use litter picker to collect innocuous forms of rubbish. - Move activity to different area if amount of litter is too great to clear / too hazardous - Do not touch sharps without appropriate training, PPE and hazardous waste disposal unit. Sharps must NOT be put into public waste bins.	1	3	3
Travel	-Road traffic accident -Minor injury -Major injury -Death	Children, staff, volunteers	2	5	10	- Plan route from school to site in advance -Site session away from roads and traffic. If vehicles come onto site unexpectedly move session to a safe distance	1	5	5
Challenging behaviour	- Verbal or physical aggression - Inappropriate or offensive language - Antisocial behaviour - Not following instructions	Children, staff, volunteers, public	3	3	9	- Complete health and safety briefing at the start of the session - Facilitator to model and encourage appropriate behaviour during session - Be aware of members of the public when delivering sessions in shared or public spaces. - Continuous dynamic risk assessment. If the safety of the group, staff, volunteers or public is under threat from aggressive behaviour, terminate the session and move the group to a safe place. - Call the police if necessary.	2	3	6
Safeguarding children & vulnerable adults	- Inadequate adult supervision for the group - Abuse - Accusation	Children, staff, volunteers, public	2	4	8	- Adhere to school safeguarding policies	1	4	4
Emergency Response	- Time taken and process followed in response to an emergency	Children, staff, volunteers	2	5	10	- First aider present with field first aid kit - Carry mobile phones - Carry details of nearest minor injuries unit and A&E - Carry grid reference details of key areas to be visited to enable information to be given to Emergency Services - All accidents and 'near misses' to be reported following school procedures	1	5	5

Food safety/hygiene		Children, staff, volunteers	2	4	8	1	4	4
-Ingestion of non-food items (mud/stones/bark) - Uncooked food causing stomach discomfort or food poisoning - Allergy to snacks / foods					- Aware of allergies - Keep records of food purchased for outdoor consumption and its 'use by' date - Wash hands in water with soap if possible; if not, antibacterial gel to be available before handling and eating food - Ensure that equipment used for food preparation and storage is kept clean. - If food foraging group leader must be adequately trained and provide clear guidance and constant supervision - No eating of plants or berries without clearance from knowledgeable staff			
Environmental Impact	- Spread of disease - Disturbing wildlife - Erosion	Children, staff, volunteers, wildlife	3	3	9	2	3	6

Reviewed and approved by	
Date approved	
Planned Review	
Shared With	

Likelihood of occurrence 1 = Highly unlikely to ever occur 2= May occur but very rarely 3= Does occur but rarely 4=Occurs from time to time 5= Likely to occur often	Severity of outcome 1= Slight inconvenience 2= Minor injury requiring first aid 3= Medical attention required 4= Major injury leading to hospitalisation 5= Fatality or serious injury leading to disability	Response to risk assessment 0-6 Low risk - Monitor and reduce risks where possible 7-10 Medium risk - Look to reduce the risk with control measures, change the venue or activity or restrict the people participating in the activity at that venue. >10 High risk – Stop activity. Introduce additional / alternative control measure to reduce risk
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NATURE ART

Overview

This is a series of creative activities which can easily be done outside with minimal equipment. Students will develop creativity, imagination and will enjoy being in and connecting with nature.

Curriculum links

PSHE: team work, confidence

Science: using various materials

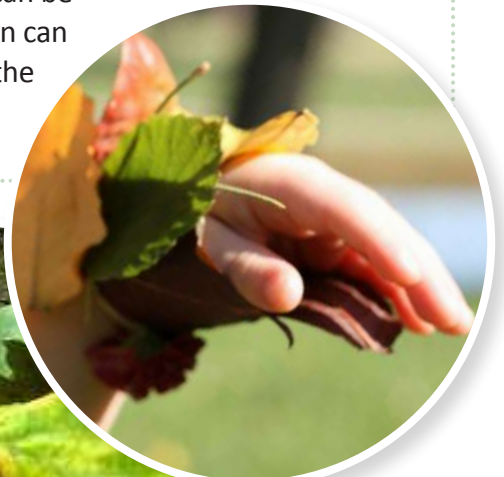
Maths: symmetry

Wellbeing: relaxation, mindful activities

Activity: Nature colour palettes

Suggested resources: paper or card, double sided sticky tape, paint sample cards

What variety of colours can you collect in nature? Leaves and flowers can be stuck to double sided sticky tape on a paper bracelet or crown. Children can find colours in nature that match paint sample cards, or try and make the whole rainbow from autumn leaves.

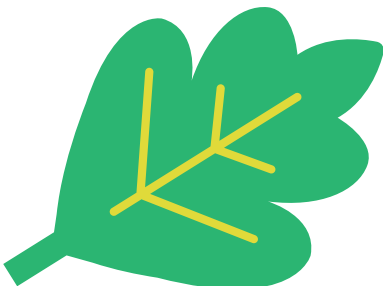


Activity: Clay tree faces

The “Green Man” is a character or spirit found in many different culture through the ages. Can you create your own Green Man face by sculpting a clay face onto a tree and decorating with leaves, seeds and berries?



Suggested resources: Images of the Green Man , clay, natural materials



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Suggested resources: string or tape, stones if windy



Activity: Symmetrical art

Ask students to create art using natural objects, which includes lines of symmetry. Students can demarcate the line of symmetry using string or tape.

Activity: Build nests

Use the materials you have around you to build nests for birds. You could award points based on how sturdy, creative and beautiful the nests are.



Suggested resources: willow, ivy, other natural materials

Suggested resources: chalk or paper and pencil

Activity: Sundial

Children make a structure with natural materials they find and then draw or chalk around its shadow. You can talk about the shadow - will it move or change shape - why does it do that?

Activity: Bark rubbing

Take a piece of paper and hold it up against a tree. Rub the crayon against the tree and it will leave an imprint of the trees bark. Can you get different imprints from different trees? Can you make a picture using your imprints? Stick leaves to the picture to make your own tree

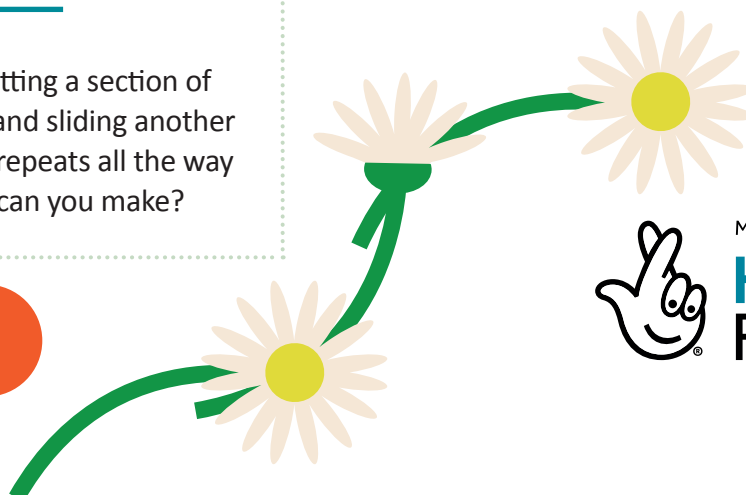


Activity: Daisy Chains

Daisy chains are made by spitting a section of the stalk of a daisy into two and sliding another daisy through the hole. This repeats all the way along making a chain. What can you make?

Suggested resources: a field with daisies!

Suggested resources: Crayon and paper



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Activity: Sun prints

Suggested resources: sugar paper (aka construction paper).
You can also buy sun-sensitive paper for incredible results

This only works when it's sunny. Find some interesting nature objects and lay them onto sugar/construction paper in an arty way. Leave them in direct sunlight and the sun will leave shadows behind the objects they placed. Weigh down objects with stones or plexi-glass if it is windy.

Sun prints in action:

This activity is a fun way of teaching children about light waves, and the importance of wearing sunscreen.

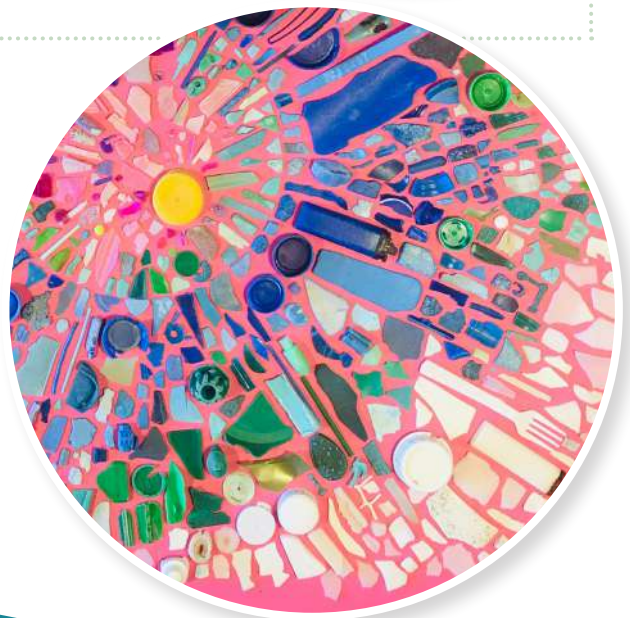
Certain light waves, called ultraviolet (UV) waves, have enough energy to break the bonds of chemicals, like the dyes in construction paper. In this experiment, the paper shaded by leaves and flowers didn't change colour, but the rest of the paper did, because the UV waves broke chemical bonds in the paper dye.

UV light can damage skin too. That's why we wear sunscreen or stay in the shade when the sun is shining strong.



Activity: Tidy-up art

After discussing the problems of littering and waste, do a litter pick, or use materials from your school recycling bins. After washing everything thoroughly, students can create 2D and 3D artwork from the litter. This artwork could be part of a wider anti-litter or anti-single use plastic campaign in your school.



CARR'S WOOD ACTIVITY PLAN FOR SCHOOLS



Carr's Wood is a small local nature reserve of woods and fields close to the railway line and skirting the western edge of the city. It provides a peaceful woodland walk, a glimpse into Twerton's history, and a species-rich grassland with views out into the countryside. Carr's Wood is a fantastic place to spark children's fascination with their local natural and historical environment.

This activity plan is for a 1.5 – 2hr visit with KS2 groups, and can be easily adapted for younger children.

Getting there, accessibility and health and safety

Carr's Wood is accessible by foot from various parts of Twerton. This activity plan assumes you will enter and exit the woods from Woodhouse Road. The route is approximately 1.7km. There are some steps, muddy paths & steep slopes.

A sample risk assessment is included at the end of this pack. There is plenty of parking available on nearby streets.

Learning opportunities

PSHE: Communication, trust, resilience, confidence, risk awareness, wellbeing in nature

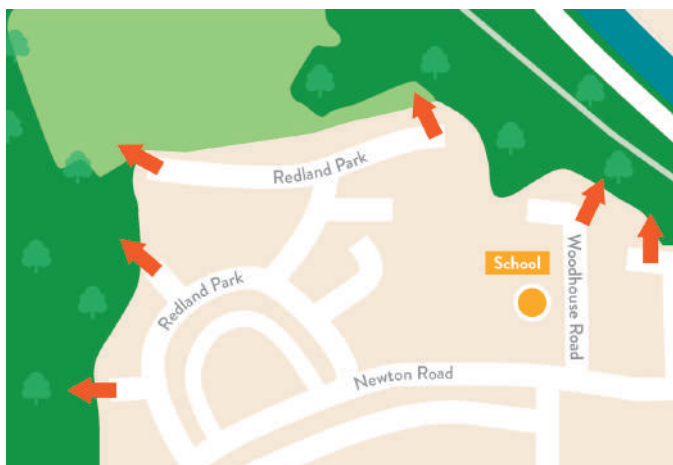
Science: Habitats, species identification, classification, adaptation

Maths: Estimation of distance & area

English: Creative writing, persuasive writing

History: Local history, land use change through time

Geography: Map reading



Postcode: BA2 1SS

OS grid ref: ST722649

What 3 Words: calls.song.lately

PREPARING FOR THE VISIT



Pre-visit activity ideas

History: Show students old maps of Twerton, using Google Earth or the Know Your Place website – kypwest.org.uk. How has this area changed? How have things changed for humans and for wildlife since then? The fact file in this pack is good background reading.

Geography/maths: Can you find Carr's Wood on a map? Can you estimate the area of Carr's Wood? Can you estimate the length of the walk we will be taking?

Citizenship: Watch and discuss this Countryside Code video <https://www.youtube.com/watch?v=ZHBVMNROsSI>.

Science: Teach or refresh nature-related topics and vocabulary, e.g. species identification & classification, habitats, adaptation, evolution and inheritance.

KIT LIST

Essential kit:

Clipboards, pencils, activity sheets and ID guides, bug pots, magnifying glasses

Optional kit:

Sit mats, white sheets, sweep nets, ID book

Advice to parents:

The site can be muddy so wellies or old trainers are recommended



Activity ideas to continue the learning

Take action for nature!

- Anti-litter campaign – pupils could organise a litter pick, speak in assembly, make posters, or write for the school newsletter.
- Do a survey to see what habitats your school grounds have. How does it compare to Carr's Wood? How could we make more homes for nature? Refer to Wilder Schools Advice Pack activities.
- Nature challenge – can you create something which helps nature in your school, garden or local park? Provide links to designs for bird/bat/hedgehog boxes, bird feeders etc.
- What route would an animal take to get from your school field to Carr's Wood? Can you create mini habitats for this animal along its route?

History:

- Ask a relative about their memories of Carr's Wood and local nature. Did they play there as a child? What games did they play? What wildlife did they see there?

Science:

- Make a species fact file, species top trumps, or create a food web from species found on visit.
- Watch this video about how trees communicate with each other underneath the soil - www.youtube.com/watch?v=yWOqeyPIVRo. Discuss why woods are so important.
- Super bug! Create an imaginary invertebrate which is perfectly adapted to live in a certain habitat.

English:

- Persuasive writing – why should people visit Carr's Wood?



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FACT FILE: CARR'S WOOD



Nature in Carr's Wood

Carr's Wood is wonderful for wildlife

The woodland is a mix of many tree species, including beech, sycamore, oak & horse chestnut. Each type of tree provides shelter & food for different species. For example, oak trees support over 2,300 different species, including 38 birds, 1,178 invertebrates, nearly a thousand types of lichen & fungi, and 31 mammals. The ivy climbing up the trees adds more places for birds to nest and insects to hide from predators.

Dead wood, such as the large fallen tree which is our base for minibeast hunting, provides shelter and food for many species, including the lesser stag beetle and even the seldom seen rhinoceros beetle. Other fungi you may see is 'artist' fungus (a huge bracket fungus which is white underneath) and King Alfred Cake. This is a black round fungus with a great folk story behind it. The legend goes that when King Alfred was hiding from Danes, he took refuge in the marshes near Glastonbury. An old lady said he could stay with her so long as he kept an eye on the cake she was cooking. King Alfred neglected his responsibilities and the cakes burnt!

In early spring the woodland floor is full of snowdrops, later by bluebells, wild garlic and wood anemone. In June and July a rare plant called Bath Asparagus comes into flower.

Look out for birds – in the woods you may hear a woodpecker drilling into a dead tree, the melodic song of robins, wrens and song thrushes, or the rustle of a blackbird pecking through the leaf litter to find worms. Out in the meadow look for buzzards soaring overhead, swallows swooping low hunting for insects, and wood pigeons jostling for position in trees.

Out in the meadow there are many bee species, as well as others who mimic stinging insects to scare off predators – including hoverflies which mimic the stripy pattern of wasps, and the bee-fly, which is a fly that

looks like a small bumblebee! Look out for butterflies in the meadow and the woods: you may see the silver-washed fritillary, meadow brown, comma, red admiral, tortoiseshell, peacock and brimstone. If you listen carefully you may hear bush crickets, grasshoppers, and spot a range of insects, including ladybirds (24 spot, 14 spot, 7 spot), and many species of spiders and beetles.

History

In the 1840s Isambard Kingdom Brunel brought his famous railway to the West Country through a spectacular gothic tunnel beneath the wood. You can take students to see this tunnel (it is marked on the map), but it is a bit overgrown and steep. The trainline closed in 1917 to save money during the 1st World War. More people were travelling into Bath from the electric tram line which went from the city centre to Twerton.

Where we enter the woods there used to be a grand manor house called Wood House. This was owned by the Carrs, a prominent local family, who opened their grounds for a popular flower show each year. The house was demolished in the 1960s to make way for houses, but you can still see some remains – a ghostly set of broad stone steps on the left as we enter the woods.

Problems in Carr's Wood

Carr's Wood has some issues with fly tipping, littering and fire lighting. This doesn't ruin the beauty of the site, but it is a good opportunity to start discussions about our role in protecting the environment.



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MAP: CARR'S WOOD



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Wildlife Trust



1 Entrance – between rows of houses on Woodhouse Road

2 Supercharge your senses

3 Fallen log

4 Meadow areas

5 Carr's Estate Steps

2 **On entering the woods:**
Supercharge your senses

This is a 'mini-mindfulness' moment where children will focus on different senses one at a time (sight, sound, smell).

Walk using supercharged senses (owl eyes, rabbit ears, badger nose)



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3 **Activity: Fallen log (5-10 min walk)**

- Discuss what makes a woodland a woodland (lots of trees and shrubs close together)
- Use bug pots and ID guides to explore what invertebrates we can find. You could record on the 'reflect on your visit' worksheet on **page 8**.
- Discuss minibeast adaptations (how they move, what they eat, how they avoid getting eaten).
- Discuss why minibeasts are important (they are decomposers, they are food for other animals, they deserve to live just as much as humans do).
- For extra ideas, see 'trees' activity plan.

Give children walking challenges, and walk slowly to...

4 **Activity: Meadow (5-10 min walk)**

- Cross the gate and walk diagonally up the meadow following a path. Stop where you have a good view! What can you see from up here?
- This is a great place to do a wellbeing activity like a 'sit spot'. 'Fistful of Sounds' is another option - children close their eyes and hold up their outstretched hand. Every time they hear a natural sound they put down one finger, until they have a 'fistful of sounds'. You can expand this by getting them to draw a sound map, drawing pictures of the things they have heard coming from different directions. See 'wellbeing' activity plan for more ideas.
- Discuss what makes a meadow a meadow. How is it different from the woods? Why might different animals live here? How it is different from our school field, and why?
- Using bug pots and ID guides, explore what invertebrates we can find, and record on worksheet on page 8. If you have a white sheet, place it under a bush and shake the branches to see what invertebrates fall onto the sheet.
- An alternative activity is finding colours in nature. You could give students a challenge to find all the colours in the rainbow!

A

Give children a different walking challenge, and walk back the way you came. There is an alternative route you can take towards the end of the route which comes down the old Carr's Estate steps. This is more uneven and children should go single file. They may need support coming down the rocky section, most will enjoy the challenge!

5 **At the bottom of the steps: (10-15 min walk)**

- Reflect on what they have learnt on the visit. You may want to use the worksheet on **page 8**.
- Ask children to think about how they can help nature in their gardens and at school. For example: bird boxes, bird feeders, flowers, long grass, patches of nettles and weeds growing from pavements are all helping wildlife live in our cities.

SUPERCARGE YOUR SENSES!



Find a quiet spot in the woodland where the group can gather. Tell the group that to be the best nature explorers, we need to supercharge our senses so that we can hear, see and smell better. Animals in the wild need to use all their senses in order to hunt for prey, know when predators are coming, find food, and to communicate with each other. Most humans are rubbish at using our senses, but we can get better very quickly with these simple exercises!

Sight



- Look as far into the distance as you can. What can you see? Now look further... what about now?
- Now get your eyes as close to the ground as you can. What is the smallest thing you can see? Can you see anything moving?
- Now look up into the air. Can you see anything in the air? A bird, a floating seed, dust?
- **Your eyes are now supercharged!**

Smell



- Take a deep breath. Does it smell different here than at home or school?
- Pick up a handful of earth or a pile of leaves. Put your nostrils close, breathe deeply. You are smelling millions, trillions of miniscule plants, animals, fungi & bacteria!
- **Your nose is now supercharged!**

Sound



- We are all going to close our eyes and breathe slowly & quietly
- Ignore human sounds – traffic and people. Can you hear any birds? The wind?
- Without opening your eyes, try and work out where each sound is coming from –close or far away? behind or in front of you? above or below you?
- **Your ears are now supercharged!**



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WALKING CHALLENGES



Print and cut these up to hand out during the visit – can be used individually, in small groups or as a whole class



How many different shades of green can you see?



Can you walk without making any sound?



Can you see anything natural which starts with the same letter as your name?



Imagine you were here 100 years ago. What would be different?



How many different colours can you see?



Imagine you are an owl: what tree would you perch on and why?



Brush your hand through some leaves or grass. What does it feel like?



How many different shaped leaves can you collect from the woodland floor?



Imagine you have to sleep here for the night? Where would you make your den?



What could we do to make this place better for wildlife?



Can you invent a rhyme about Carr's Wood?



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REFLECT ON THE VISIT



We saw...



We felt...



We heard...



We touched...



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Avon
Wildlife Trust

Activity	School visit to Carr's Wood		
Location	Carr's Wood		
Date of activity	Ongoing		
Date of assessment	June 2021	Assessors	Avon Wildlife Trust

Risk Assessment form

Category of risk	Description of risks or hazards (anything that may cause harm)	Who is at risk	Risk rating before control			Control measures to reduce risk or harm (add or delete as appropriate)			Risk rating after control		
			Likelihood	Severity	Rating				Likelihood	Severity	Rating
2	3	4	5	6	7	8	9	10	11		
Slips / trips	- Uneven ground - Roots/stones - Slippery/wet/icy surface - Steep slopes	Children, staff, volunteers	3	3	9	- Appropriate clothing & footwear advised - Plan route in advance - Site explanation & pointing out hazards	2	3	6		
Falls from / onto	- Unprotected drops - Loose branches - Trip hazards - Dead / diseased / fallen trees	Children, staff, volunteers	3	4	12	- Appropriate clothing & footwear advised - Dynamic risk assessment, site explanation & pointing out of hazards - Do not conduct activities underneath diseased or dead trees	1	4	4		
Disease / infection (Rabies, Weil's, Lyme's, etc)	- Weil's disease (rat borne) - Lyme's disease (tick borne) - Liver flukes (cattle troughs) - Bacteria and viruses - Animal faeces	Children, staff, volunteers	2	4	8	- Staff and volunteers to wash hands before offering snacks. Provide mobile hand washing- bowls, water, hand-wash, or antibacterial gel if having snacks or foraging - Remind children to avoid hand-to-mouth contact during session - Appropriate clothing (long sleeves and trousers in environments likely to harbour ticks) - Be vigilant about animal excrement – tutor carry bags/gloves to pick up/move animal faeces - Ensure any potentially affected equipment is cleaned regularly (half termly) or sterilise/replace after it has been contaminated - If in area known to harbour ticks, advise parents on how to check for ticks and include tick removal tool in first aid kit	1	4	4		
Insects and plants (stings, irritants, thorns)	- Horseflies - Hayfever - Bees & wasps	Children, staff, volunteers	3	3	9	- Staff and volunteers to wash hands before offering snacks - Remind participants to avoid hand-to-mouth contact during session and not to eat anything without permission - Awareness of severe allergies	2	3	6		

	- Poisonous and irritant plants (inc umbelliferae such as giant hogweed) - Bacteria from thorny plants						- Provide mobile hand washing- bowls, water, hand-wash, or antibacterial gel before snack time - Pre-site assessment to identify any toxic or irritant plants and fungi, or risky areas for potential wasp nests - Water carried to rinse off hogweed sap if necessary		
Weather Hypo - cold conditions Hyper - hot conditions	<i>Hypo:</i> - Hypothermia & frost bite <i>Hyper:</i> - Heat stroke, heat exhaustion, sun burn <i>Rain:</i> - Slippery, mud <i>Wind:</i> - Falling branches, wind-borne objects	Children, staff, volunteers	2	4	8		- The weather forecast must be checked in advance. Plan B or cancel in case of severe weather - Avoid wooded areas in strong winds (25mph or GF6 and above) - Appropriate footwear & clothing - Survival pack with foil blanket - Shelter from cold/wet weather - Shade from hot/sunny weather - Carry plenty of water and sunscreen in hot weather - Children to wear hats and sun cream	1	4
Sharp objects and whiplash of branches	- Cuts - Injuries to eyes, face and body	Children, staff, volunteers	2	3	6		- Take care - Use help where necessary - Awareness of others - Hand branches to person behind you	2	3
Manual handling	- Injury to self & others	Children, staff, volunteers	3	3	9		- Transport items in small loads - Carrying routes to be planned	1	3
Equipment	- Injury to self or others	Children, staff, volunteers	2	5	10		- Group leader to demonstrate equipment use and safe handling prior to children using all equipment - Appropriate footwear - No use of equipment without tutor or adult supervision - Safe storage of equipment	1	5
Strangers	- Abduction - Abuse - Injury	Children, staff, volunteers	2	5	10		- Working groups of 2+ - Tutor and adults vigilant - Children reminded about 'Stranger Danger' and not talking to strangers who may be at the site - Children/whole group 'stay where you can see an adult' - Move group and call 999 if threatened by member of public	1	5
Getting lost	- Abduction - Abuse - Injury	Children, staff, volunteers	2	5	10		- Map of site carried by group leaders - Group leader to complete head counts on arrival, departure and when moving between locations - Children/whole group 'stay where you can see an adult'- parent/carer or facilitator - Ratio of supervision must be based on school's policy for Learning Outside the Classroom - Groups reminded of behaviour and staying together	1	5

Poisonous animals - adders	- Bites - Infection	Children, staff, volunteers	2	4	8	- Never handle snakes - Wear appropriate clothing and footwear (no open toed footwear if walking through long grass)	1	4	4
Dogs	- Attack - Bite - Faeces	Children, staff, volunteers	2	4	8	- Brief group not to approach, talk to or touch dogs. If approached stand still & cross arms - Move activity away from area with potentially aggressive dog - Clear dog or cat faeces using disposable gloves and poo bags - Anyone who may be pregnant must not handle faeces	1	4	4
Rubbish/glass/needles	-Cuts -Wounds	Children, staff, volunteers	2	3	6	- Thorough site inspection prior to activities. - Staff to wear gloves and use litter picker to collect innocuous forms of rubbish. - Move activity to different area if amount of litter is too great to clear / too hazardous - Do not touch sharps without appropriate training, PPE and hazardous waste disposal unit. Sharps must NOT be put into public waste bins.	1	3	3
Travel	-Road traffic accident -Minor injury -Major injury -Death	Children, staff, volunteers	2	5	10	- Plan route from school to site in advance -Site session away from roads and traffic. If vehicles come onto site unexpectedly move session to a safe distance	1	5	5
Challenging behaviour	- Verbal or physical aggression - Inappropriate or offensive language - Antisocial behaviour - Not following instructions	Children, staff, volunteers, public	3	3	9	- Complete health and safety briefing at the start of the session - Facilitator to model and encourage appropriate behaviour during session - Be aware of members of the public when delivering sessions in shared or public spaces. - Continuous dynamic risk assessment. If the safety of the group, staff, volunteers or public is under threat from aggressive behaviour, terminate the session and move the group to a safe place. - Call the police if necessary.	2	3	6
Safeguarding children & vulnerable adults	- Inadequate adult supervision for the group - Abuse - Accusation	Children, staff, volunteers, public	2	4	8	- Adhere to school safeguarding policies	1	4	4
Emergency Response	- Time taken and process followed in response to an emergency	Children, staff, volunteers	2	5	10	- First aider present with field first aid kit - Carry mobile phones - Carry details of nearest minor injuries unit and A&E - Carry grid reference details of key areas to be visited to enable information to be given to Emergency Services - All accidents and 'near misses' to be reported following school procedures	1	5	5

Food safety/hygiene	-Ingestion of non-food items (mud/stones/bark) - Uncooked food causing stomach discomfort or food poisoning - Allergy to snacks / foods	Children, staff, volunteers	2	4	8	- Aware of allergies - Keep records of food purchased for outdoor consumption and its 'use by' date - Wash hands in water with soap if possible; if not, antibacterial gel to be available before handling and eating food - Ensure that equipment used for food preparation and storage is kept clean. - If food foraging group leader must be adequately trained and provide clear guidance and constant supervision - No eating of plants or berries without clearance from knowledgeable staff	1	4	4
Environmental Impact	- Spread of disease - Disturbing wildlife - Erosion	Children, staff, volunteers, wildlife	3	3	9	- Always have a bin bag and clear up after each session - Encourage environmental awareness among participants - Select route to minimise impact on wildlife and people - Don't allow children to pick wildflowers	2	3	6

Reviewed and approved by	
Date approved	
Planned Review	
Shared With	

Likelihood of occurrence 1 = Highly unlikely to ever occur 2= May occur but very rarely 3= Does occur but rarely 4=Occurs from time to time 5= Likely to occur often	Severity of outcome 1= Slight inconvenience 2= Minor injury requiring first aid 3= Medical attention required 4= Major injury leading to hospitalisation 5= Fatality or serious injury leading to disability	Response to risk assessment 0-6 Low risk - Monitor and reduce risks where possible 7-10 Medium risk - Look to reduce the risk with control measures, change the venue or activity or restrict the people participating in the activity at that venue. >10 High risk – Stop activity. Introduce additional / alternative control measure to reduce risk
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WELLBEING WITH NATURE



Overview

A series of activities and games which support learners to reconnect, build communication and trust, and develop their emotional literacy.

Curriculum links

PSHE: communication, trust

Science: adaptation

Wellbeing: emotional awareness and articulation, nature as a source of wellbeing

Activity: Nature mindfulness (5-10min)

In a circle (ideally sitting), introduce idea that being outside in nature can help people relax.

Ask students to close their eyes and take a deep breath in through their nose and out through their mouth. Ask them to first focus on the sounds of nature. After a while switch to what they can feel, e.g. the wind/sun/rain on their face, the weight of their body on the ground, or the feeling of grass through their fingers. To finish, tell students: "take a deep breathe in.... as you breathe out, stretch your arms up as high as you can... wiggle your fingers... now open your eyes".

Try and do this in a quiet spot

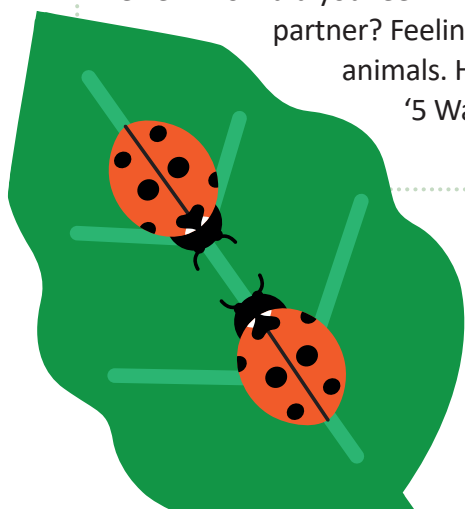
Use sit mats or logs to sit on if the ground is damp



Activity: Mirroring (15min)

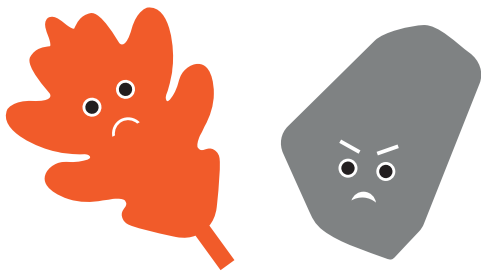
Partners face each other. One child does a movement and their partner copies their movement as if they were a mirror. No talking is allowed. Swap after a few minutes.

Review: how did you feel when your partner mirrored you? What did you have to do to mirror your partner? Feeling connected with others is really important for humans and lots of other animals. How do you stay connected with your friends and family? You can use the '5 Ways to Wellbeing' to frame this discussion—see page 4.



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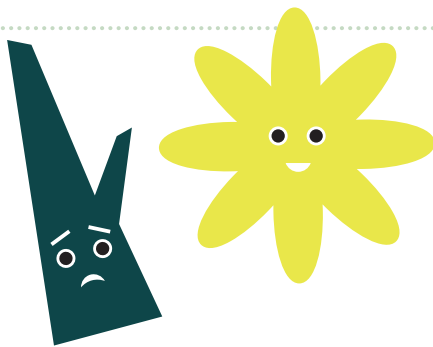
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Activity: Emotion game (20min)

Best done somewhere with lots of natural materials

Emotions can be put into four categories: joy, sadness, anger and fear. Animals have these emotions too, they are all normal. Ask learners to collect natural objects that make them think of each of the emotions. Children interpret this in many different ways, and should be reassured that no interpretation is wrong. Children might find a thorn for fear, a rock for anger, a flower for joy, a dead leaf for sadness. Encourage children to talk about one of their objects. You might introduce idea that nature is a place where we can express our emotions more freely, it never tells us off!



Draw or mark out a cross on the ground with an emotion word in each section

Take a bag to collect extra natural objects if needed

Activity: Create a mindful area

Nature can benefit our mental health in many ways. Work with students to design part of your school grounds to be a beautiful, calm place where children can immerse themselves in nature.

Activity: Emotion mandalas (30min)

Mandala is a Sanskrit word meaning 'circle'. Mandalas represent how nature never ends, it goes around in cycles and everything is connected. Like spring flowers come up after a cold winter, if you are feeling sadness you will feel joy again soon. Make mandalas individually or in groups— try to represent each emotion within your mandala.

Use the Wildlife Watch Mandala sheet as a guide— page 3

Make a nature mandala



wildlife
watch

You will need

- Bags or baskets to collect natural materials

Natural materials:



Sticks

Grass



Leaves



Feathers



Pebbles



Pine cones

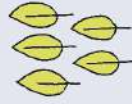


Flowers

Only pick from your own garden and leave plenty for pollinators!

1

Head outdoors and collect your natural materials. Try to find a few of the same thing as this will help with your shape (eg. five yellow leaves, four twigs of equal length).



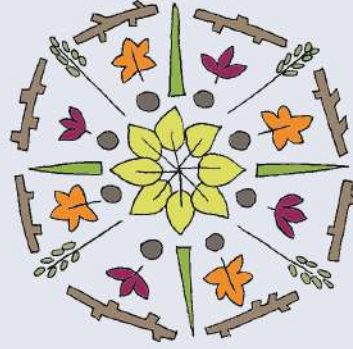
2

Find a flat surface – maybe a table or even your lawn or yard outside. Place one of your finds down first to act as the middle of the mandala.



3

Use the rest of your finds to make a pattern coming out from the centre. Consider the symmetry of your pattern, making one side mirror the other. You can be as creative as you like.



4

Remember to take a photo of your finished mandala!

The word 'mandala' is Sanskrit for circle. The circular shape symbolises how nature doesn't begin or end, but is always connected.

Illustration: Corinne Welch © Copyright Royal Society of Wildlife Trusts 2020

FIVE WAYS TO WELLBEING



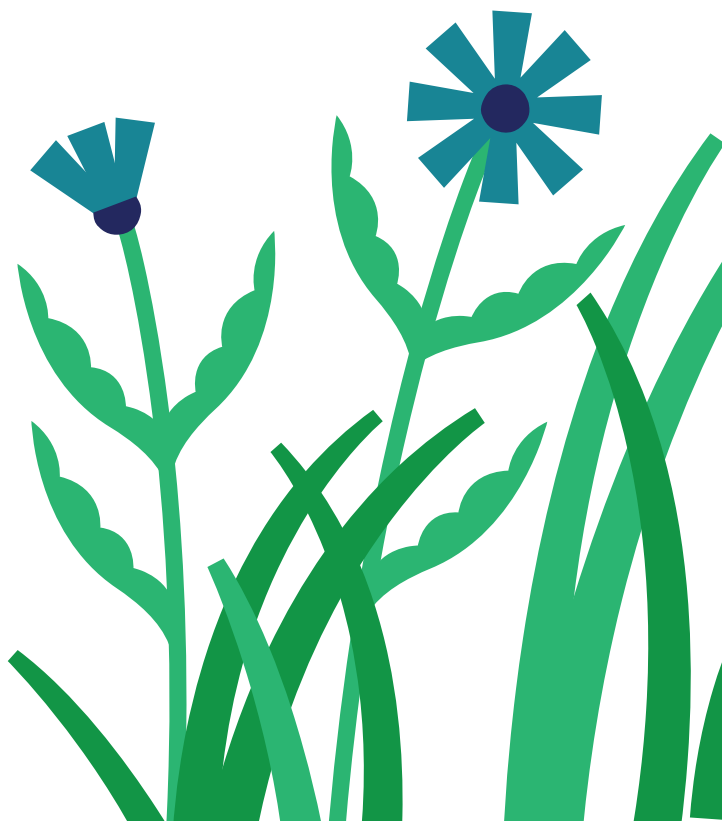
This is an approach to supporting wellbeing, which we use at the Wildlife Trusts. Outdoor and nature-based learning support all of the 5 ways to wellbeing.

- 1 **Be Active:** Wild play, gardening, exploring nature
- 2 **Connect:** Feeling part of and connected to the natural world and each other
- 3 **Give:** Creating homes for nature by planting wildflowers, building bug hotels, litter picking
- 4 **Take notice:** Slowing down & using all your senses to observe nature
- 5 **Learn:** There are endless opportunities to learn about local wildlife through first hand exploration



This video by Dr Amir Khan gives more information on the 5 ways to wellbeing

www.wildlifetrusts.org/nature-health-and-wild-wellbeing



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BATHSCAPE
LANDSCAPE PARTNERSHIP



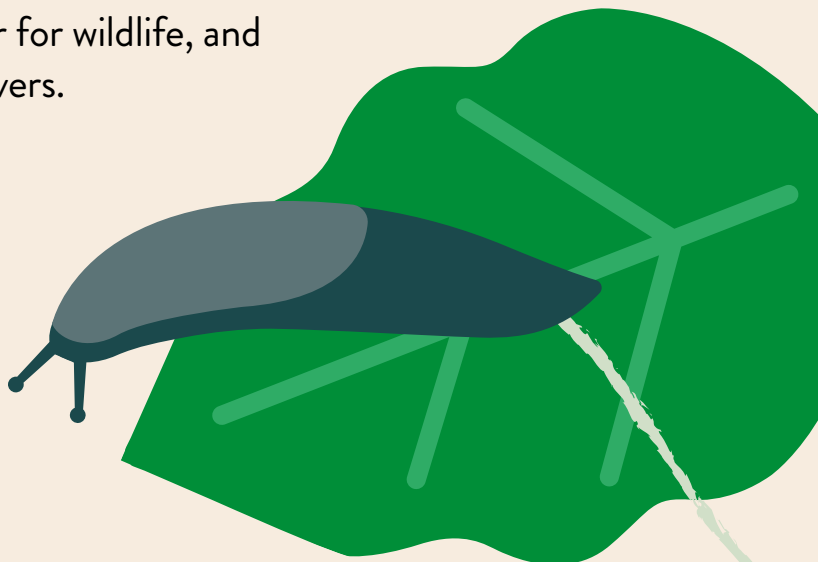
WILDER SCHOOLS ADVICE PACK

This pack is for anyone who wants to improve their school grounds for wildlife. It gives practical advice and ideas for managing your school grounds for wildlife and inspiring young minds. This pack has plenty of 'quick wins' as well as advice on longer term projects, and has ideas suitable for all schools, whether your schools is a concrete jungle, or already teeming with life.

Bathscape encourages more people to actively enjoy the landscape on Bath's doorstep - as families, student groups and individually. We concentrate our efforts in areas like Twerton and Whiteway, helping to make local woodlands and grasslands better managed and better for wildlife, and inspiring the next generation of nature lovers.

This pack is created by Avon Wildlife Trust - experts in outdoor learning and wildlife conservation.

For more information about our work with schools, including school visits, training and nature clubs, please visit avonwildlifetrust.org.uk/learn



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Contents

■ How wildlife friendly is our school now, and how can we improve?

On **pages 3 – 6** you'll find information on what wildlife needs in order to thrive, and how to survey your school grounds for wildlife. From this you can decide what improvements you can make to help wildlife.

■ Getting buy in from your school leadership team.

See page 7

■ Bringing more nature into your school.

Practical advice on how to make changes, from saying 'no to the mow' through to growing your own food.

Ponds– pages 8 – 10

Wildflower meadows– pages 11 – 13

Food growing– pages 14 – 16

Trees, hedges and scrub– pages 17 – 18

Creature features– pages 19 – 23

■ Where else to go for advice and information.

See page 24



Wildlife needs



All species need water, food, shelter and somewhere to raise their young. The more habitats in your school the better. The key habitats for schools are:



Areas of long grass

This provides food and shelter for invertebrates and small mammals. See page 11.

Flowering plants

Provide pollen, nectar and seeds. It's important to have a variety of types which flower at different times of year. Perennial, native plants are best, as more insects will use them, and their leaves, roots and dead stems provide food and shelter for caterpillars, beetle larvae etc. See pages 11 - 13.

Ponds, bird baths and other damp places

Even a small pond is a home for wildlife, including insect larvae that will metamorphose into dragonflies, hoverflies and other flying insects that are essential food for birds and bats. A bird bath provides a safe source of water for birds, whilst ditches or bog gardens are fantastic for frogs, toads, newts and damp-loving invertebrates. See pages 8 - 10.

Log piles and leaf litter

Rotting logs and piles of grass clippings or leaves are amazing for minibeasts, provide places for animals like hedgehogs to hibernate, and are the best place to find weird and wonderful fungi and slime moulds. You could also build hibernacula. See pages 20 - 23.

Trees, hedges and scrub

Provide shelter and nesting sites for birds and bats, and nuts, fruits and seeds for a wide range of wildlife. See pages 17 - 18.



Wet and dry areas create variety

Sunny, shady and marginal plants provide beauty and variety and thrive in different habitats

Short and long grass provide a range of habitats whilst meeting your needs for play areas

High, low and below– think about plants of various heights and look after your soil – no fertilisers or chemicals

Day and night– plants which flower at night are brilliant for moths, and turning out lights overnight will help bats and moths not to get confused

Horizontal and vertical– make use of your vertical spaces with climbing plants, bug hotels and bird boxes

Edges and shelter– try and keep some areas free of disturbance, so that animals and plants to thrive and reproduce

Dead and alive– leave some seed heads and dead plants in the soil where possible

A different way of thinking about what wildlife needs to survive is to think about contrasting habitats

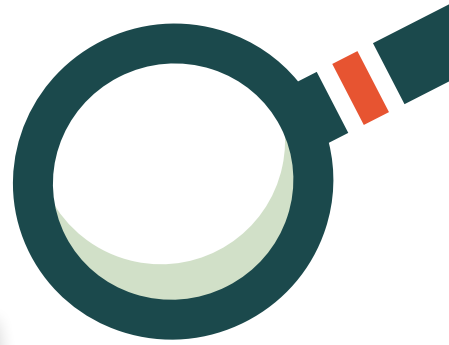
How wildlife friendly is your school?

Surveying your school grounds with pupils and getting them involved in decision making will help foster curiosity, pride and ownership. You could do a before and after survey to see how much more wildlife you find a year after the changes are made.

		SCORE 0	SCORE 1	SCORE 2
Trees		We have no trees	We have a few trees	We have lots of different types of trees
Hedges		We don't have a hedge	We have a hedge that looks neat and is all the same type of tree	We have a hedge with different types of tree in it. It is not trimmed every year
Scrub*		We don't have any scrub	We have a small amount of scrub	We have loads of scrub!
Long grass		No grass, or all grass is mown regularly	Most of our grass is mown regularly, but a little bit grows long	We only mow the bits of our grass that we need to, the rest is left to grow long and make flowers
Flowering plants		We don't have any flowering plants	We have some flowering plants	We have lots of types of bee-friendly flowers that flower at different times of year
Log piles and leaf litter		We don't have any log piles or piles of leaves	We have either a log pile or piles of leaves	We have log piles AND piles of leaves!
Ponds, ditches, bird bath		We don't have anywhere for birds to drink from, or tadpoles to swim in	We have one water feature that is good for wildlife	We have more than one water feature, including a wildlife-friendly pond
Bird boxes, bat boxes, insect hotels, bee blocks		We don't have any of these things	We have one of these features	We have more than one of these OR we don't need these things because there are lots of natural habitats for animals to live and look after their babies
Food growing		We don't grow any of our own vegetables, fruit or herbs	We grow a couple of things	We grow lots of food!
Other wildlife-friendly features		we don't have any other wildlife-friendly features	We have a couple of other wildlife-friendly features	We have loads more wildlife-friendly features!
BEFORE SCORE				
AFTER SCORE				

*Scrub = messy area with brambles, climbers and maybe small trees

How to look for wildlife



1 Identify all the habitats in your school where wildlife may be lurking.

If your school is not blessed with much wildlife you may have to look harder – wildlife always finds a way!

2 Collect your equipment, you will need:

- **Identification guides** (or an identification app like Seek or iNaturalist)
- **Bug pots and magnifying glasses** so you can catch and identify animals
- **Recording sheet**, such as the one in this pack, plus **clipboards and pencils**

3 Get identifying!

Survey one habitat at a time, or get the whole year group/school involved and give each class a different habitat to focus on. Don't forget to look up for birds!

4 Present your findings:

You could add your findings to the Seek or iNaturalist app. If you are planning to improve your school for nature, you could keep your data and do another survey in a year, to see whether any new wildlife has moved in!

5 Reflect and plan:

Was there more or less wildlife than you expected? Where did you find most wildlife, and why do you think that might be? If so, why might that be? Are they really not here, or were they hiding? What can we do to make more homes for nature?

SPRING GARDEN INSECT GUIDE

These are some of the amazing insects that may visit gardens & parks this Spring. What can you spot?



SPRING MINI-BEAST GUIDE

These are just some of the amazing creatures that may be hiding under logs, rocks or dead leaves in gardens and parks this Spring. How many can you spot?



Local illustrator Marion Hill has created a beautiful range of seasonable spotter guides - see bathscape.co.uk/resources

There are also great guides available on the Woodland Trust and Wildlife Watch websites.



[illegible]

Making it happen



Facts to convince your school to make changes

1 Your school ground can really help wildlife!

Bats will fly miles away from their roosts to hunt for emerging insects above your school pond. Toads may overwinter in your log piles, before migrating through your school to their ancestral breeding ponds in spring. Blue tit chicks can eat 100 caterpillars a day, and their parents will explore their full territory to provide for them. There may be a particularly rare species in your area that you can help!

2 Nature-rich school grounds improve playtimes

Research from Learning through Landscapes shows that improving school grounds reduces bullying, improves children's enjoyment and social interaction during playtime, and improves behaviour during formal learning time. See ltl.org.uk/school-grounds for more.

3 Spending regular time in nature supports children's physical & mental health

A wealth of research showing the benefits of regular time spent in nature for children's wellbeing and physical health. According to the National Trust 'Natural Childhood' report, fewer than 10% of children play regularly in natural spaces – your school could be a haven for them. See lotc.org.uk/category/research/ for more.

4 Wildlife rich school grounds are great for curriculum-linked outdoor learning

From outdoor storytime to bug hunting to tree maths, there is no end of real life learning that will engage students with learning.

5 It doesn't have to be expensive

Some changes, such as changing the school's mowing regime, can actually save your school money.

6 Building connection with nature creates adults who will take action for nature!

Spending regular time exploring nature is the single biggest indicator of whether a child will become an adult who cares about nature. This is vital as we try to solve global problems like biodiversity loss and climate breakdown.

7 It makes your school look great!

Your school can build a reputation as somewhere which cares about enriching children's play and learning, and making a difference to the natural world. Improving your school grounds also helps you achieve awards such as the Ecoschools Award, which you can celebrate on social media and in the press. Share what you have done with us by email, Twitter or Instagram and we will shout about it too!



@avonwt



Avonwt

Bringing more nature into your school



The next section of this booklet gives practical advice and ideas for managing your school grounds for wildlife. It includes 'quick wins' as well as advice on longer term projects, and has ideas suitable for all schools, whether your school is a concrete jungle, or already teeming with life.

Ponds

Adding a pond, or rejuvenating an existing one, is one of the best things you can do for wildlife in your school. Make it safe and accessible for students and you will have a calming and educational resource for your school.



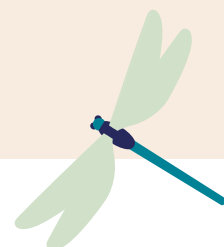
For guides on
how to build your
ponds visit
wildlifewatch.org.uk

Larger ponds

Larger ponds are almost always richer in wildlife and are easier to maintain in a balanced state, and give fantastic opportunities for outdoor learning, as well as being a beautiful feature for your school. They can be expensive to construct, and require regular maintenance. Large ponds in schools usually have boardwalk or paving around most of the edge to give access to the water. Most will also be fenced off to control access, which adds to the cost. A good alternative is a raised pond, which is great for accessibility and safety.

Mini ponds

Mini ponds are also very valuable for wildlife, and you could have a number of them in your school. Not only that but they are cheap, easy to create and even easier to take care of. Mini ponds can be constructed from a whole range of containers! Small ponds are however more likely to get out of balance in hot weather, and of course are harder to use for pond dipping.



Pond planting

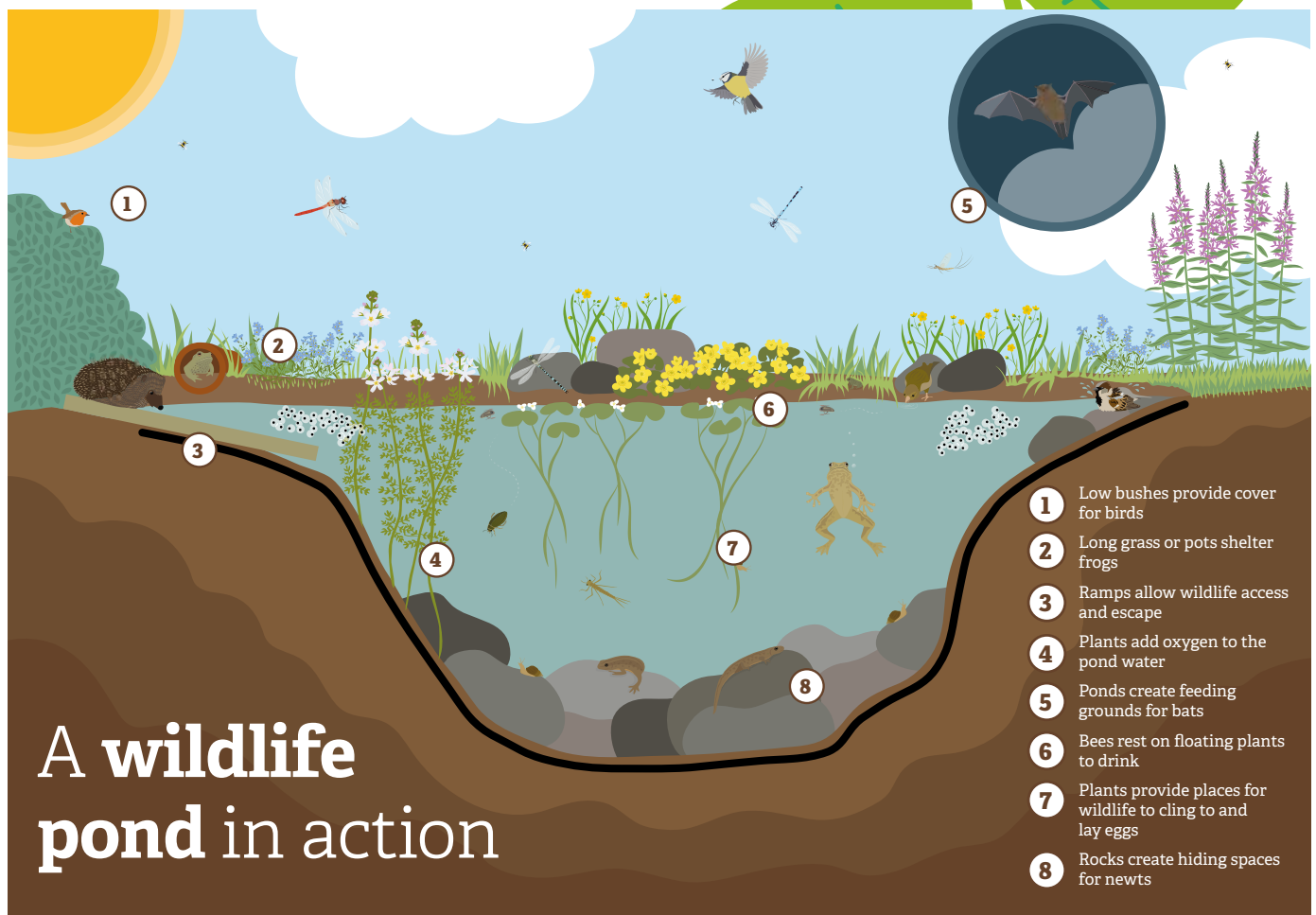
Plants are an important part of your wildlife pond, oxygenating the water and providing food and shelter. Ideally about a third of your pond will be open water, a third emergent plants, and a third floating or submerged plants. Aim for UK native species where possible, as some common pond plants are invasive and damaging to local wildlife.

For a fantastic cross-curricular project, students could research, plan, design, construct and plant ponds.



There is a step by step guide, including suggestions of what plants to buy at

wildlifetrusts.org/actions/how-build-pond



Pond maintenance

Spring

Put in barley straw pads to help reduce problems with algae. Try not to disturb your pond too much at this time, there is a lot of activity below the surface. Introduce any new plants where needed from mid-spring. You can divide plants and compost any excess.

Summer

Evaporation is normal, but if water levels drop low, top it up with rain water. Keep grass around the pond long to shelter young frogs.

Cut back vigorous plants and remove duckweed. Blanketweed can also be pulled out in small amounts at a time, but be careful to check for trapped newts, water boatmen, or other creatures. If you notice this, swirl the weeds in a bucket with pond water before adding the wildlife back to the pond.

Ponds are great for teaching lifecycles, identification, classification, food webs, adaptation, evolution and seasonal changes.



Autumn

If you need to carry out any maintenance work, such as removing silt, do it now while the pond is less active. Plants will also die back at this time. Allow the pond enough light by removing excess fallen leaves and cutting back overhanging branches.



Winter

Freezing over is normal and unlikely to reduce oxygen levels too much in a healthy pond. A mini pond could be insulated with bubble wrap, kept close to a building, or sunk into the ground to help prevent it freezing. Avoid smashing the ice as shards could cause damage.

If your pond is the only drinking source for wildlife then leave a ball in the water to keep an ice free section near the edge. Alternatively melt a hole by holding a pan of hot water on the surface. Brush off any fallen snow from the surface of your pond to allow light to reach the water.



Both images: Anna Williams

Wildflower meadows

Say no to the mow!

Wildflower meadows are stunning, wildlife rich habitats and 97% of them have disappeared since the 1930s as our agriculture has intensified and our use of pesticides and fertilisers has increased. If you have an area of school field you don't use for sports, it is cheap and quick to create your own meadow, just by saying NO TO THE MOW!

Leave a strip around the edge of your sports field, around a hedge or at the entrance to your school. Reduce the mowing to once a year (in September) or twice (April & Sept) and you will find buttercups, daisies, dandelions will have a chance to flower, and who knows what else! Make sure that the grass clippings are raked off to ensure the delicate wildflowers are not crowded out by coarser grasses. You may also want to dethatch or scarify ground to stop large clumps forming.

Mow addicts!

It is ingrained in our culture that neat and tidy lawns are best. Many wildflower meadow efforts have been thwarted by well-meaning contractors 'tidying up' your best efforts. Putting up signs or roping off your wildflower area may be a good idea.

If you don't have a lawn area, you can create a pollinator patch in containers or raised beds. See wildlifewatch.org.uk/actions/how-create-container-garden-wildlife



Students could draw, identify and investigate wildflowers and the pollinators that visit them. Older students could use quadrats to compare distribution of plants between mown lawn and wildflower areas.

Blooming Whiteway

Blooming Whiteway is a group of residents in Whiteway and the surrounding community who are working to make the area greener, more wildlife friendly and improve habitat connectivity.



- We work with all sorts of people in all sorts of way - including schools - so do get in touch!
- We run a Front Garden Festival for Whiteway residents and are especially interested in helping families to get growing.
- We're really passionate about growing food and plants in a sustainable and low cost way - we grow plants to giveaway and share skills.
- We manage a local Community Tree Nursery for More Trees Banes - a project that schools across Banes are getting involved with.
- You'll catch us in our park, Whiteway Green, every third Saturday of the month, we run other events too so keep an eye on our website and social media.
Bloomingwhiteway.com



Many of the following native wildflowers can be bought as plugs or pots from our wildlife friendly food growing site [Grow Wilder](#) and planted in existing grass or in your new meadow. Others are available as seed from [Emorsgate Seeds](#).

The plants we recommend are perennials, so come back year on year and have a longer growing season. In a new meadow you may also want to sow a native annual seed mix so you get more flowers in your first year.



Starting a wildflower area from scratch?

See wildlifetrusts.org/actions/how-grow-wild-patch and wildlifewatch.org.uk for advice



Selfheal



Bird's Foot Trefoil



Fox & Cubs



Common Catsear



Lady's Bedstraw



Tormential



Yarrow



Wild Red Clover



Common Daisy



Salad Burnet



Ground Ivy



Yellow Rattle



Other fantastic wildflowers

Common Catsear, Rough Hawkbit, Autumn Hawkbit, Mouse-eared Hawkweed, Creeping Cinquefoil, Common Sorrel, Sheep's Sorrel, Oxeye Daisy, Common Knapweed, Field Scabious and Wild Marjoram.

Photo credits: Top Row L-R: Lana Huntley, Kirsten Smith, Richard Burkmar, Tricia Haigh. Middle Row L-R: Philip Precey, Chris Lawrence, Olli Kilpi, Lee Schofield. Bottom Row L-R: Richard Burkmar, Philip Precey. Image to the left: Ross Hoddinott

Butterfly and moth garden

There are 59 species of butterfly and 2,500 species of moth in the UK. As well as bringing beauty and wonder to your school grounds, providing homes for butterflies, moths and their caterpillars helps to feed birds, bats, hedgehogs and many other species.

These beautiful and mysterious creatures are a rich source of material for creative writing and art projects, as well as a tool to learning around change and inner growth.



See the Wildlife Watch garden butterflies spotter sheet to help identify more species



Holly blue butterfly
Caterpillar food: Holly and ivy



Peacock butterfly
Caterpillar food: Nettles



Orange-tip butterfly
Caterpillar food: Cuckooflower, garlic mustard



Comma butterfly
Caterpillar food: Nettle, currant, willow



Small tortoiseshell butterfly
Caterpillar food: Nettle

Go deeper:

butterfly-conservation.org.uk has fantastic resources on the best plants to grow for year round nectar and food sources for butterflies, moths and their caterpillars.

Top Plants:

Alliums and chives
Sedums
Cranesbill
Buddleia (not native, can be invasive)
Herbs – sage, lavender, oregano/
marjoram
Fruit trees
Persicaria
Verbena
Perennial wallflower



Poplar hawkmoth
Caterpillar food: Polars, aspen, willow



Burnet moth
Caterpillar food: Bird's foot trefoil

Holly blue butterfly- Amy Lewis, Peacock butterfly- Brain Mayhew, Orange-tip butterfly- Amy Lewis, Comma butterfly- Emma Lusby, Small tortoiseshell butterfly- Richard Willison, Poplar hawkmoth- Claire Burton, Burnet moth- Les Binns

Food growing



A healthy eating garden provides food and shelter for a wide range of wildlife. In fact, allotments make a huge contribution to supporting wildlife in urban areas! This guide gives ideas for vegetables, fruit & herbs that kids will like eating, 'that are easy to grow, can be harvested during term time, and don't require much watering during school holidays.

The RHS Campaign for School Gardening has a wealth of free resources to help you at all stages. schoolgardening.rhs.org.uk

Curriculum links are endless. Food connects us across cultures and continents, through recipes and storytelling.

Plant	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July
FAST GROWING (can be planted and harvested within one (long) term)											
Beetroot							☀️	🌱	🌱🌱	🌱🌱	🌱
Cucumber							🌱	🌱		🌱	
Lettuce	🌱	🌱🌱	🌱	🌱		🌱🌱	☀️🌱	☀️🌱	☀️🌱	☀️🌱	🌱
Peas							☀️🌱	☀️🌱	🌱🌱	🌱🌱	🌱
Edible Flowers							🌱	🌱	☀️🌱	☀️🌱	🌱
Spinach	🌱	🌱	🌱	🌱	🌱	🌱		☀️🌱	☀️🌱	🌱🌱	🌱
Potatoes (first early)	🌱							🌱	🌱	🌱	🌱
MEDIUM GROWING (plant in one term to harvest in the next)											
Broadbeans	☀️	☀️				☀️	☀️	☀️	🌱	🌱	🌱
Onions	☀️	☀️	☀️				☀️	☀️		🌱	🌱
Potatoes (main crop)	🌱	🌱						🌱	🌱		
Tomatoes							🌱	🌱	🌱	🌱	
Strawberries (from runners)	🌱🌱	🌱	🌱	🌱	🌱	🌱	🌱	🌱	🌱	🌱🌱	🌱🌱
SLOW GROWING (six months or more)											
Leeks	🌱	🌱	🌱	🌱	🌱	🌱	☀️🌱	☀️🌱			
Onion	☀️🌱	☀️					☀️		🌱	🌱	
CONTINUAL CROPS											
Rhubarb							🌱	🌱	🌱	🌱	
Fruit bushes and trees	🌱	🌱							🌱	🌱	
Herbs- mint, chives, thyme, oregano	🌱	🌱	🌱	🌱	🌱	🌱	🌱	🌱	🌱	🌱	🌱

☀️ Sow outdoors 🌱 Sow indoors 🌱 Plant out 🌱 Harvest

Wildlife friendly garden management

One big step towards growing vegetables with wildlife in mind is to stop using chemical pesticides. These upset the natural balance of the environment and tend to kill everything off: 'pests' (which are wildlife too!) and their predators alike. Afterwards, pests may even recover much quicker without their natural predators to keep their numbers in check. So, try to be a bit more pest-tolerant, and allow their natural predators to do the work for you.

Given good soil conditions and no water stress, crops will grow strong and healthy, and will be more resistant to pests and diseases. High-nitrogen fertilisers can encourage sappy, leafy growth that's more vulnerable to attack, so make sure you have a compost heap to provide plenty of animal-friendly, all-purpose soil improver. See wildlifewatch.org.uk/how-make-compost for inspiration.

If you have already created a wildlife-friendly garden, all those creatures you have made a home for, such as toads, hedgehogs and birds, are your frontline in pest control.



Planning your wildlife-friendly vegetable garden:

Research pest control. Try and learn as much as possible about the sort of pests which are attracted to your crops and the natural ways of controlling them. These include physical intervention like picking off slugs and aphids by hand, putting up barriers like crushed eggshells to prevent unwelcome intruders, and encouraging natural predators.

Prepare your soil. It's always good to prepare your soil by adding soil improvers like compost and green manure. Finding out what type of soil you have (for instance, its acidity, whether it's clay or sandy, and how well it holds moisture) provides clues to what is likely to grow best. A plant grown in the wrong conditions will be stressed and more likely to succumb to pests or disease.



Students could create persuasive posters about healthy diets, plan and cook a healthy seasonal meal, or investigate the effectiveness of different pest control methods.



Establishing your vegetable garden:

Provide a decent environment for your veg to grow in – dig plenty of compost or leaf mould into your plot as fertiliser, and make sure it's well watered.

A barrier of coarse bark or sharp gravel around the veg beds helps deter slugs and snails. If you have raised beds, try running some copper wire around the sides to form a slug- and snail-proof ring.

There isn't any conclusive scientific evidence about why companion planting works, but it is used with some success. The principle is that certain plants either attract insects away from your crops or actually deter them.

Maintaining your vegetable garden:

Pick off the pests: Keep an eye out for caterpillars, aphids, slugs and other vegetable chompers and hand pick what the birds and hedgehogs don't get first.

Wrap up your veg: Use horticultural fleece to cover newly planted vegetables as a non-toxic means of pest control. Don't forget to provide plenty of other feeding opportunities for the more welcome visitors to your garden who would have eaten the pests you've deterred.

Protect your crop: The birds that you have tempted into your garden might not differentiate between what's meant for them and what's meant for your table. As long as there is plenty for them to eat, don't feel bad about protecting your fruit with netting and jangly items like strung-up tin cans and CDs.



Our wildflower nursery is open most days for browsing and buying. To find out more or to arrange a visit with your colleagues or class, visit growwilder.co.uk.

Grow Wilder

Grow Wilder is our bustling wildlife-friendly food growing and gardening site in North Bristol.

At Grow Wilder you can see practical examples of wildlife-friendly gardening, food growing and habitat management to inspire your school.



Top tips!

- Carrot flowers, like all umbellifers, are a big hit with many insects, especially aphid-eating hoverflies, so leave a few to flower.
- A nearby patch of weeds can be a bonus. It is unlikely to harbour the pests which are detrimental to the veg plot, but may well host many of their predators.

Trees, hedges and scrub

Trees

Trees are like all-inclusive hotels for wildlife – nectar, seeds, fruit, nuts, leaves, sap, bark and roots are all food for a wide range of species. Birds and bats nest in holes, branches and ivy, and insects take shelter in cracks of bark and in leaf litter on the ground.

Trees also have a vital role to play in protecting the environment. Six native trees will absorb and store about a tonne of carbon dioxide over their lifetimes. Planting trees also helps to guard against soil erosion, reduces the effects of flooding, and absorbs air pollution.

Planting trees

- Planting trees is easy, keeping them alive and thriving is harder! Think carefully about where to plant and what the trees will look like in 10 to 20 years. Seek advice from whoever you get your trees from.
- Fruit trees may be a good option – they tend to grow smaller and will start bearing fruit in around 4 years – a great resource for learning as well as food for hungry animals in autumn and winter.
- Trees should be planted between November and March.
- You may be able to get free trees from a local campaign or community group, or from the Woodland Trust.
- Consider creating a living willow structure – surprising easy to create, fantastic for outdoor learning and an attractive wildlife habitat.



The Woodland Trust offers free trees to schools, including packs suitable for growing hedges and orchards. More Trees BANES is a community group that has planted over 8,000 trees in the local area.

Nick Turner

Enhancing the wildlife value of existing trees:

- Erect bird and bat boxes in your trees.
- Don't mow underneath trees – leave the grass to grow long for wildlife, or plant native woodland wildflowers like snowdrops and primroses.
- Avoid cutting ivy – it is a ladder for wildlife to travel between ground and canopy and is unlikely to harm a healthy tree.
- If branches are cut, use them to make log piles or seating for outdoor play & learning.
- If fallen leaves need to be raked up, leave them in large piles to create hibernation sites for species like hedgehogs, toads and invertebrates.
- If you have a larger woodland area, consider coppicing – this can improve light levels to the woodland floor and provide a sustainable source of wood which you can use for many projects, from den building to sculptures.



Hedges

Old hedges are great wildlife habitats. To keep your hedges at their best for wildlife aim to:

- Trim the hedge less frequently – wildlife value is increased if they are cut every 2 or 3 years rather than annually.
- Trim hedges outside of nesting season which is March to August to avoid killing or disturbing eggs or chicks. It is an offence to damage or destroy a nest that is being built or is in use.
- Leave a strip of uncut grass at the base of the hedge for wildlife.
- Infill gaps in hedges with native shrubs, wildflowers such as honeysuckle or climbers like ivy. Evergreen climbers provide shelter for overwintering butterflies and other insects, nesting for birds in spring and the berries provide food in the autumn and winter.

Creating a new hedge can be an attractive barrier to wind, sound and unsightly features. They are also wildlife corridors, helping species move safely between habitats. Aim for a mix of native hedgerow plants such as holly, juniper, hawthorn and hazel.

For more information see wildlifetrusts.org/actions/how-make-hedge-wildlife

There is no limit to learning that can be done with trees. Woodland Trust's Tree Tools for Schools is an extensive collection of resources and lesson plans for learning about trees.

treetoolsforschools.org.uk



Neil Phillips



Scrub

Scrub is a magnificent mess of small trees or shrubs, brambles, long grasses and tall or rambling flowering plants. It is what grassland turns into if it isn't mowed or grazed, on its way towards becoming a woodland. Birds of prey use scrub to roost and hunt from in winter, and its dense, spiky structure protects nesting birds and mammals from predators. It is a great place to put out a trail camera over night to try and see nocturnal visitors!

Scrub will develop naturally in areas that are left unmown. The only management required is to cut back edges each winter with loppers to stop it getting too big, with sections of scrub being cut back every 5-15 years to prevent it getting too 'leggy' or turning into woodland.

Creature features

On the next few pages are some of our Wildlife Watch sheets. There are many more available by heading to wildlifewatch.org.uk

These helpful instructions can be easily adapted for use in teaching English, Maths, Science and DT across Key Stages 1, 2 and 3!

Make a nest box - page 19

Make a bug hotel - page 20

Make an insect hotel - page 21

Make a deluxe hedgehog house - page 22

Build hidey holes - page 23



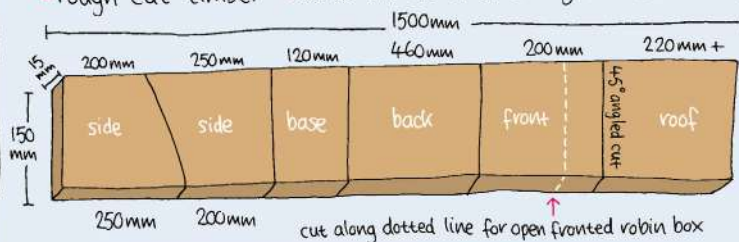
How to make a nest box

wildlife
watch



What you need:

- rough cut timber
- some old rubber or a hinge
- 20mm nails
- tools:



▶ saw

▶ hammer

▶ hand brace or drill

▶ pencil, ruler and scissors

always get an adult to help with tools!

1 Mark out and saw panels

Use diagram above, and write the name of each panel onto the marked out wood.

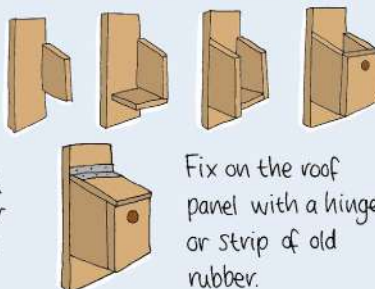
2 Choose your box type



hole fronted box:
blue tits (25mm)
great tits (28mm)
sparrows (38mm)
starlings (45mm)



open fronted box for robins



Fix on the roof panel with a hinge or strip of old rubber.

Where to put it:

2-5 metres above the ground, somewhere sheltered.



2-5m above ground

How to build a bug hotel



wildlife
watch

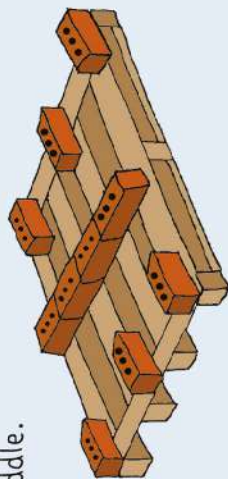


You will need:

- Wooden pallets x4
- Bricks
- Plastic bottles
- Bamboo canes and/or plastic straws
- Straw
- Leaves
- Tiles
- Cardboard
- Stones/pebbles
- Twigs/loose bark

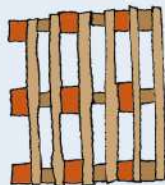
1

Place a wooden pallet in your chosen location. On top of the pallet, line bricks around the corners and across the middle.



2

Place your next pallet on top of this and repeat the process for all of your pallets.



3

Cut off the top two-thirds of your bottles. Fill up half of them with bamboo canes/plastic straws and the other half with rolled up cardboard. Place these inside the hotel.



4

Fill in the remaining spaces with bricks, leaves, pebbles, stones, tiles, loose bark and straw.



5

Add in any extra materials that you want to recycle e.g. old pipes, carpeting, toilet tubes, old plant pots. Be creative - add a welcome sign or give your hotel a name!



©corinne welch, 2014



How to Make an insect hotel



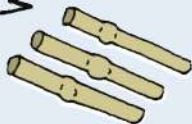
wildlife
watch



the express way!

What you need:

- hollow plant stems, like bamboo canes
- twigs and sticks
- String



- 1 Collect handfuls of stems, twigs and sticks.
- 2 Tie the bundles quite tightly in two places.

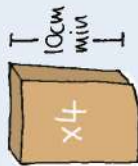
- 3 Post into a hedge / bush or hang in a sheltered place.



the deluxe way!

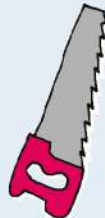
What you need:

- Small logs or untreated timber
- hollow plant stems, like bamboo canes
- twigs and sticks

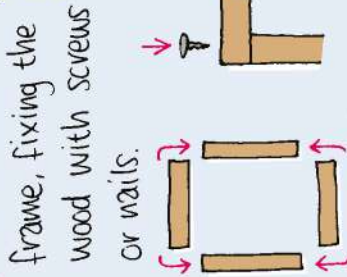


An adult to help with tools:

- wood saw
- nails and hammer
- or Screwdriver and wood screws
- drill and 5mm wood bit



1 Make a wooden frame, fixing the wood with screws or nails.



2 Fill the frame with stems, twigs and sticks.

3 Fix a wire loop to the back of the frame and hang somewhere sheltered.



Make a deluxe hedgehog house

Birch is ideal

You will need

- 20mm FSC plywood boards cut to the sizes shown

- Hammer and nails



- 2 metal hinges



- Soil



- Dry leaves



- Straw or dry grass



- Newspapers

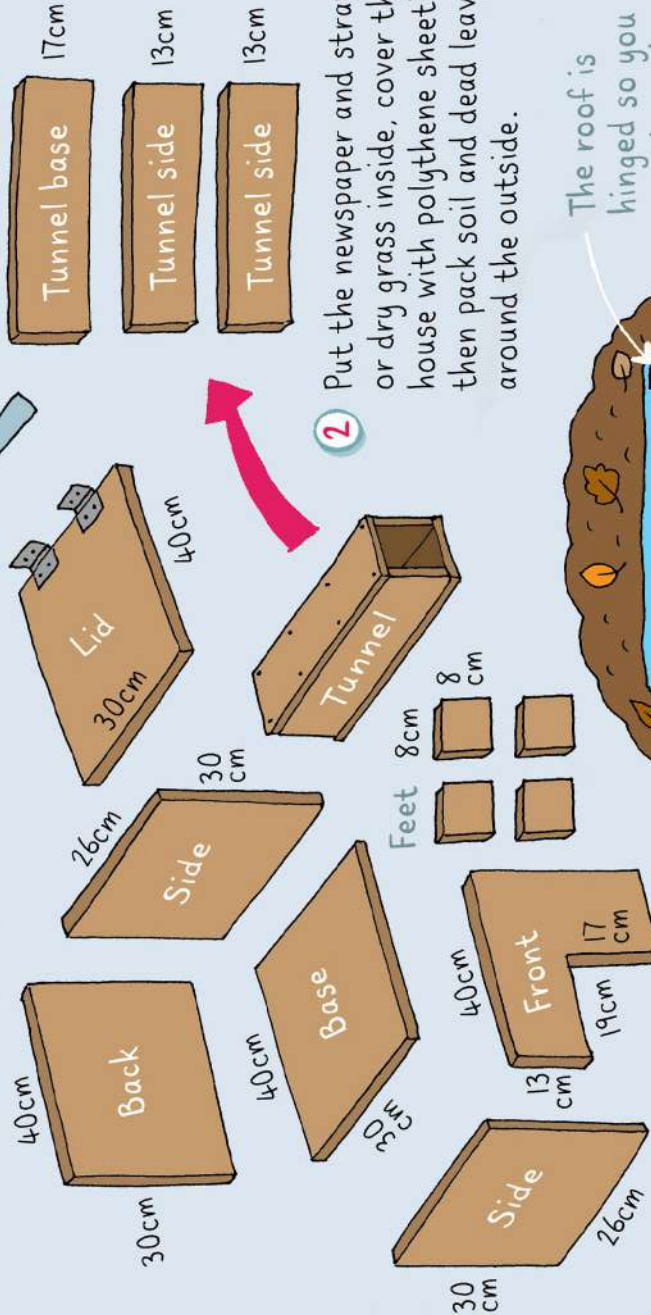


- Polythene sheeting



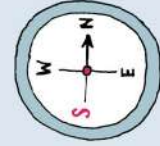
Do not creosote or treat the wood

1 Construct the hedgehog house from the following diagram and dimensions.



2 Put the newspaper and straw or dry grass inside, cover the house with polythene sheeting, then pack soil and dead leaves around the outside.

The roof is hinged so you can clean the box in future



Make sure the entrance tunnel faces south, and is kept clear at all times

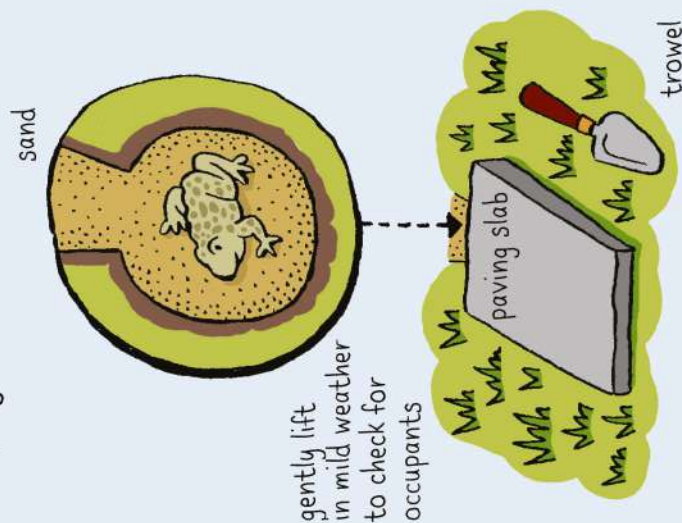


raised up on feet

How to build hidey holes

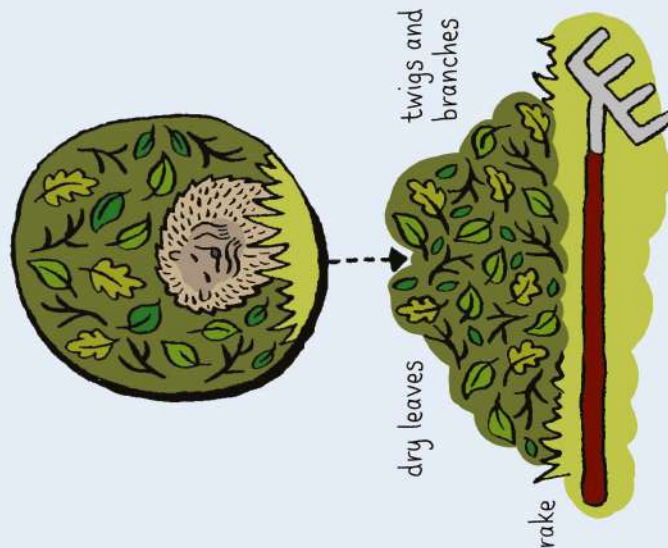
For amphibians

In a damp, cool area of the garden, dig a shallow bowl in the ground and line with sand. Cover with a slab, leaving enough room for an upward sloping tunnel.



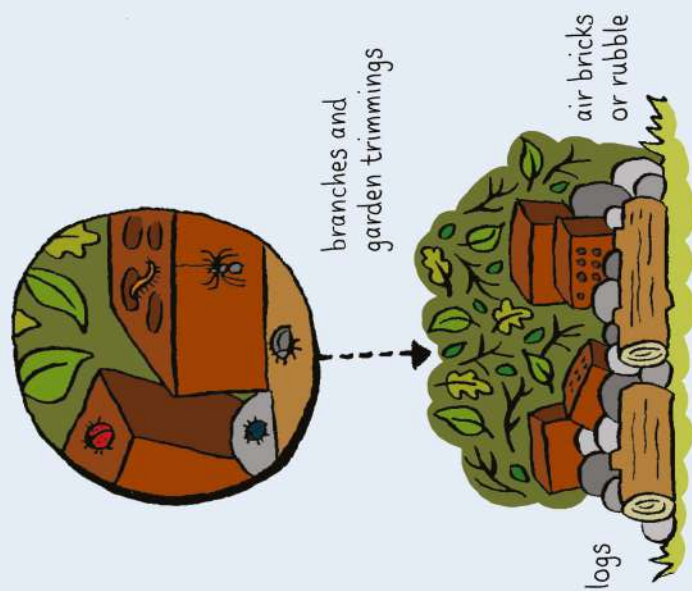
For hedgehogs

Rake a pile of dry leaves in a quiet, unused corner of the garden (under a bush is best). Build a mesh of twigs and branches around the pile, and leave an entrance space at the bottom.



For minibeasts

Stack up a log pile as the bottom layer and cover with rubble or bricks (air bricks have ready made hidey holes!) Cover the pile with branches and garden cuttings.



More advice and information



Activity ideas & advice

- wildlifewatch.org.uk - species info, spotter guides and resources for nature clubs
- wildlifetrusts.org/action-insects-school - activity guides for supporting pollinators in your school
- avonwildlifetrust.org.uk/actions/how-help-wildlife-school - how to help wildlife at school
- treetoolsforschools.org.uk - activities, spotter guides and planting guides from the Woodland Trust
- schoolgardening.rhs.org.uk - advice on school gardening projects
- rspb.org.uk/fun-and-learning
- eco-schools.org.uk - become an Eco-school!
- creativestartlearning.co.uk - resources and advice from a leading light in outdoor learning and play
- ltl.org.uk - useful outdoor play and learning resources from Learning through Landscapes
- lotc.org.uk - the Council for Learning Outside the Classroom's website



Plants

- growwilder.co.uk – for native and local wildflower plants
- wildseed.co.uk – for native wildflower seeds
- [Woodland Trust](http://WoodlandTrust.org.uk) – for free trees
- Community Gardening groups – ask around and look on Facebook
- [The Urban Garden](http://TheUrbanGarden.org.uk) – New garden centre and CIC in Bath

Kit

- nhbs.com – for high quality wildlife ID and surveying kit
- muddyfaces.co.uk – for outdoor play & learning resources
- Facebook / Freecycle / children's scrapstore in Bristol
- B&Q, garden centres – may give away free plant pots and other growing resources

Funding

- Grants4schools.info
- www.ltl.org.uk/projects/local-school-nature-grants
- tescocommunitygrants.org.uk



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avonwildlifetrust.org.uk

bathscape.co.uk



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NATURE -BASED LEARNING

The opportunities for curriculum-linked learning using the natural world could, and have, filled many a book. Here are some of our favourites!

SUBJECT	CURRICULUM-LINKS	KS1	KS2
English	- Nature inspired books and poetry– such as the Promise by Laura Carlin and the Lost Words by Robert McFarlane Recounts about adventures in nature and experiences with minibeasts - Fact files (non-chronological reports) about favourite species of animals or plants Diaries about seasonal changes in wildlife Persuasive posters on helping nature in your school Persuasive writing about helping nature in your school or community	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
Maths	Use and apply number operations outside – through seed planting and flower counting - Explore concepts such as fractions, geometry and pattern by creating nature art Estimate number of leaves, length of playground, height of tree, weight of logs Present data on changes over time; in temperature, rainfall, number of flowers, number of woodlice	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
Science	Work scientifically to investigate what animals live in different habitats, or what bird food is most popular Explore the 5 senses through food growing or tasting edible herbs, flowers or berries Identify and describe common plants and animals found in your school grounds and make simple food chains - Observe seasonal changes - Learn about plant parts, lifecycles and photosynthesis by growing vegetables or flowers - Learn about evolution and inheritance using snails and slugs as an example - Do a wildlife survey and identify and classify everything you find	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
PSHE	- See the physical health and mental wellbeing benefits of including children in food growing, leaf raking and pond digging - Encourage more nature-based play – encouraging teamwork, communication and more options for physical exercise - Encourage care and respect for the natural world – and help children understand how they can help nature	✓ ✓ ✓	✓ ✓ ✓



SUBJECT	CURRICULUM-LINKS	KS1	KS2
Geography	■ Develop map skills by making and following maps of your school grounds ■ Learn about the habitats and ecology of your local area and compare it to another country	✓ ✓	✓ ✓
History	■ Explore history of the local area from the perspective of the oldest tree in your school/ town – what has it seen? Who has climbed it?	✓	✓
Art	■ Explore famous artists' work inspired by nature, such as Andy Goldsworthy and Claude Monet ■ Create drawings, paintings and sculptures inspired by nature	✓ ✓	✓ ✓
DT	■ Get students involved in researching, planning, creating and evaluating projects in school grounds, such as minibeast hotels, bird boxes and mini ponds. ■ Exploring where food comes from, growing and harvesting food grown in school ■ Learning the importance of a healthy diet through preparing and cooking food grown in school	✓ ✓	✓ ✓
Music	■ Listening to and appraising music inspired by nature, such as Vivaldi's Four Seasons ■ Making and singing music inspired by nature ■ Dance and movement inspired by nature	✓ ✓ ✓	✓ ✓ ✓



WELLBEING WITH TREES



Overview

A selection of simple cross-curricular activities and games for KS2 groups, using trees in your school ground or local wildlife area

Session length 1.5 to 2 hours

Curriculum links

PSHE: communication, trust

Science: identification and classification

Maths: estimation

English: creative writing

Wellbeing: spending time in nature

Activity: What is this tree?

Session length: 10-15 mins

Use ID guides to identify trees in your school. Leaves are the easiest way to tell the difference between trees: buds, bark, fruits, nuts, blossom and flowers are also helpful.

Suggested Resources:

Leaf Hunt worksheet (see page 5)

More tree ID guides are available at:

www.treetoolsforschools.org.uk

www.woodlandtrust.org.uk/blog/2020/03/tree-id-kids/

Activity: How tall is my tree?

Session length: 15-30 mins

There are a range of methods to estimate the height of a tree, suitable for different ages and abilities.

Discussion point: why are trees different heights? (some trees have evolved to grow tall, some grow wide, some grow fast, some grow slowly)

Suggested Resources:

10 Ways to Measure a Tree

www.itl.org.uk/resources/measure-a-tree/

Tape measure, metre rulers, pencils

Tree math worksheet (see page 3)



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Activity: *Bark rubbings*

Session length: 15-20 mins

Create bark rubbings from different trees.

Discussion point: what did you see living on the bark? Many species of animals and plants use the cracks in barks for shelter. Some even eat bark!

Suggested Resources:

Paper, wax crayons

Activity: *Tree poetry*

Session length: 20 mins

Working in groups of 4 or 5 children select their favourite tree, observe from a different perspective and write descriptive words. Words can be arranged and read out as a poem to the group.

Suggested Resources:

Pencil and paper/card

Activity: *Meet a tree*

Session length: 20 mins

Students work in pairs. One student is blindfolded and guided by the other student on a winding route to a mystery tree. When the blindfolded student reaches the tree they touch, smells and listen to the tree, before being guided back to the starting point and trying to identify their mystery tree. This works best where there are lots of similar trees to make it challenging.

Suggested Resources:

Blindfolds or scarves

Activity: *Tree life cycle game*

Session length: 15-20 mins

Discuss the life cycle of a tree from nut to sapling to tree, then back to nut! Agree a movement for each life stage. Children walk around in a pre-agreed area as 'acorns'. When you shout 'life cycle' they must find a partner and play rock-paper-scissors. Whoever wins becomes a 'sapling', the other stays as a nut.

This game has no fixed end point, as neither does the circle of life!



TREE MATHS!

METHOD	ESTIMATE OF TREE HEIGHT IN METRES	HOW ACCURATE IS THIS METHOD?
1. <i>Compare tree to another object</i>		
2. <i>Look through your legs</i>		
3. <i>Use a pencil</i>		
4. <i>Your own method</i>		



LEAF ID!

How many different trees can you discover?



Alder



Ash



Beech



Field maple



Elder



Hazel



Horse chestnut



Holly



Rowan



Hawthorn



Birch



Sycamore



Oak

Photos Top row L-R: Philip Precey, Mark Hamblin/2020Vision, Ben Hall/2020Vision.
Second row L-R: Philip Precey, Joanna Richards, Dr Malcolm Storey.
Third row L-R: Paul Hobson, Mark Hamblin/2020Vision.
Fourth row L-R: All Philip Precey.
Bottom: Dr Malcolm Storey.

LEAF HUNT!

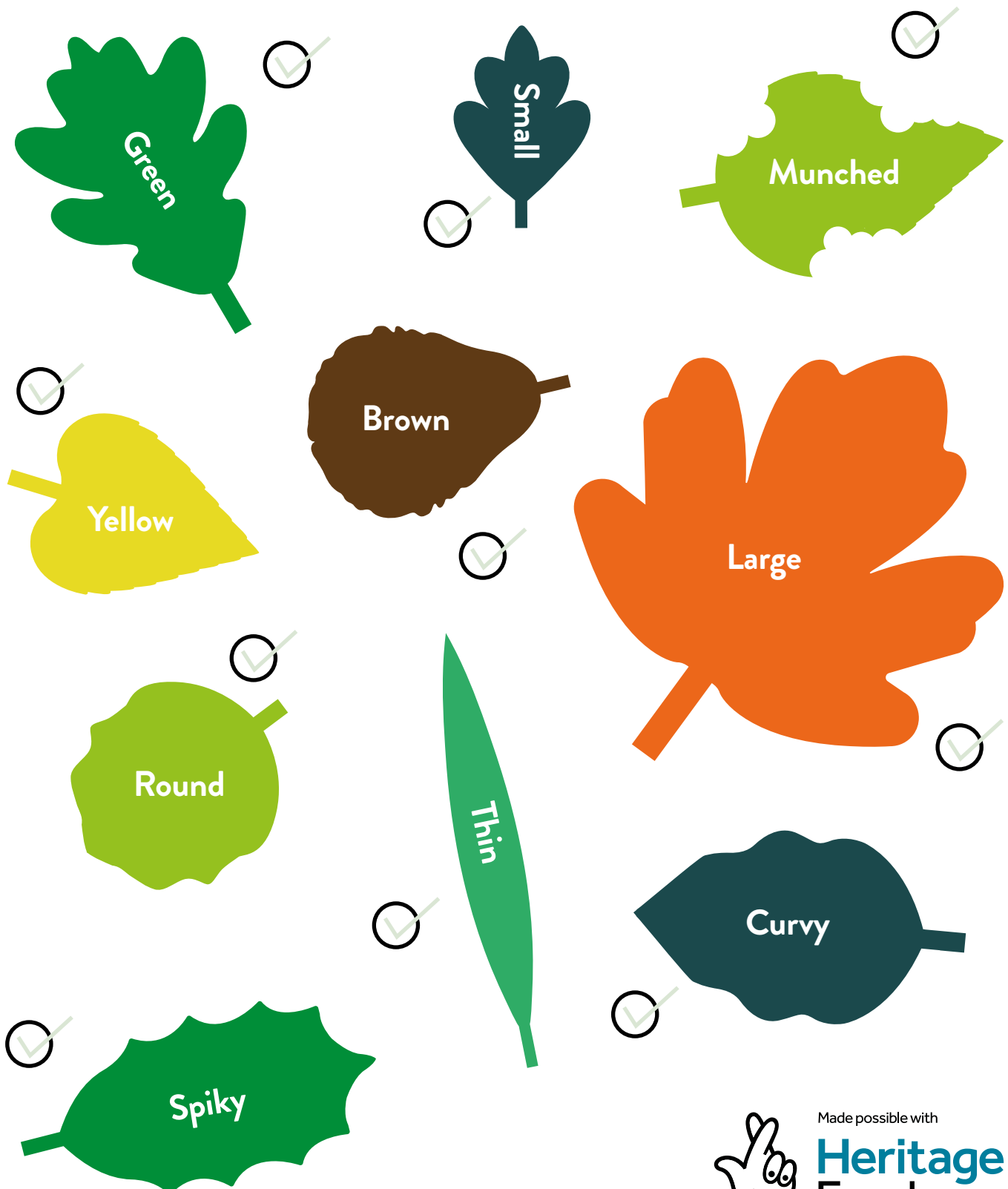
Can you spot these 10 different kinds of leaves?



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MORE IDEAS

TREE POETRY

I'm a water-sipper, lake-dipper, friendly-
back for picnic-tripper

Wind-breaker, shadow-maker, home-for-
blackbird – don't awake her

Leaf-bearer, fruit-sharer, twisted-trunk and
bark-wearer

Felled-in-one, soon I'm gone, crashed to
earth – my day is done!

Stripped quite bare, shaped with care, made
into a wooden chair

Great-to-see, lovely tree, when you're sitting
– think of me!

Brenda Williams

Activity: How old is this tree?

You can estimate the age of a tree by measuring its girth (circumference) at 1m above ground level. Trees grow at different speeds depending on the species, the habitat, and how much competition for light there is.

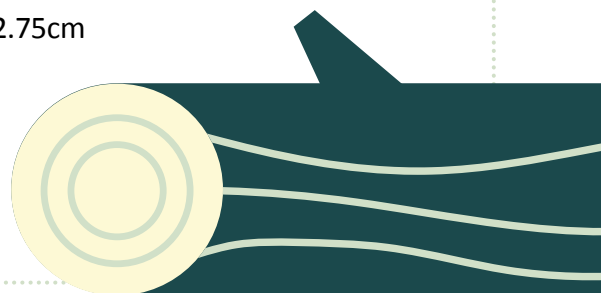
Growth of girth per year (cm).

Average: 2.5cm

Oak and beech: 1.88cm

Pine and spruce: 3.13cm

Sycamore: 2.75cm



Activity: Who visits this tree?

Can you record all the species that depend on a tree of your choice?

As well as tree shaking you could:

- complete a bird survey
- look for tracks, trails and signs of small mammals
- put up a trail camera to see what animals visit your tree.

There are lots of
spotter sheets to help
with this at

wildlifewatch.org.uk
and bathscape.org.uk

Activity: Tree shaking

Put a white sheet on the ground underneath a tree and shake or disturb its branches. Many different invertebrates may drop onto the sheet, which can be observed, identified and classified. You could even make home-made pooters to collect the invertebrates.



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