



**wildlife  
watch**

# Wildlife in School Grounds

## Information Pack



Making your  
school grounds a  
haven for wildlife,  
play & learning

Supported by players of



Awarded funds from



# About this pack



# wildlife watch

This pack is for anyone who wants to improve school grounds for wildlife and nature-based learning and play.

We know that making changes in schools isn't easy, and that it can hugely enhance children's enjoyment of learning and their connection with nature.

The booklet gives practical advice and ideas for managing your school grounds for wildlife and inspire young minds through hands-on outdoor learning. 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.

This pack will guide you through the steps to consult, plan & implement a successful project with practical advice, inspiring ideas and suggestions.

Find out more ideas, inspiration and resources to take action for nature in your community:  
[somersetwildlife.org/get-involved/team-wilder](https://somersetwildlife.org/get-involved/team-wilder)



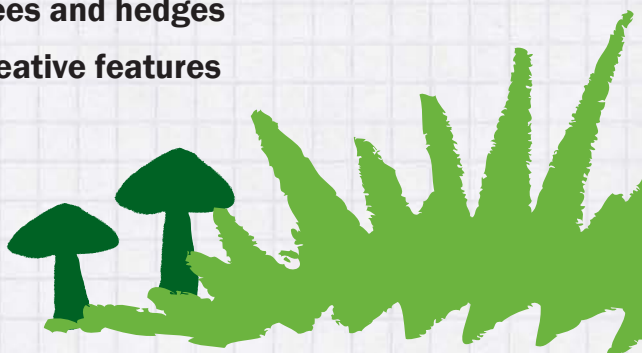
STEPH SHARKEY



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This Wildlife in School Grounds pack is funded thanks to players of People's Postcode Lottery.  
Cover image by Neil Phillips





# Working with Somerset Wildlife Trust



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As experts in outdoor learning, we can support you to bring more nature into your students' lives.

- We offer advisory visits on improving school grounds for wildlife and learning from our team of Wilder Gardening Champions.
- We run talks and events, to improve wildlife knowledge and skills, both online and in person. See [somersetwildlife.org/events](https://somersetwildlife.org/events)
- We can support you to start a Wildlife Watch nature club in your school, see [somersetwildlife.org/get-involved/next-generation/watch-clubs](https://somersetwildlife.org/get-involved/next-generation/watch-clubs)
- We have a wealth of free resources on our website

Charges may apply for some services. Find out more and explore our wealth of free resources at [somersetwildlife.org/teamwilder](https://somersetwildlife.org/teamwilder)

### To find out more:

Email us: [teamwilder@somersetwildlife.org](mailto:teamwilder@somersetwildlife.org)



PAUL HARRIS/2020 VISION



NICK TURNER

Why not fundraise for Somerset Wildlife Trust and help support local wildlife! Visit [www.somersetwildlife.org/support-us/fundraise-us](https://www.somersetwildlife.org/support-us/fundraise-us) to find out more!

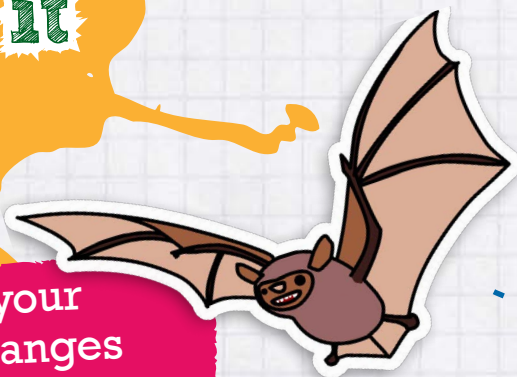


# Making it happen



## Wildlife Watch

### 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 improves 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](http://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/](http://lotc.org.uk/category/research/) for more.



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

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!



@somesetwt



someset  
wildlife  
trust



# Wildlife needs - the basics



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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:

## 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 page 16.



## Areas of long grass

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



## 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 page 20.



## 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 slimemoulds. You could also build hibernacula. See page 27.

## Ponds and other damp places, bird bath

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 page 10.

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

**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

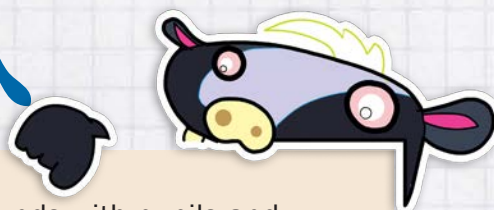
**Dead and alive** – leave some seed heads and dead plants in the soil where possible



# Site surveys



# wildlife watch



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. Pupils could:

- Draw maps, measure perimeters and calculate areas.
- Survey existing habitats for plants, minibeasts and birds, and hunt for tracks, nests, holes, nibble marks and other signs of wildlife. We have lots of free ID guides you can print off from **wildlifewatch.org.uk**. The **iNaturalist App** can help you identifying trickier species and by recording on this App you'll be contributing your records to the county database, feeding into scientific research!
- Conduct interviews with fellow pupils – what areas are sunny and shady? What would they like to do in the playground which they can't now? Where have they seen wildlife?
- Take part in the Great Somerset Wildlife Count. These county wide BioBlitz's take place throughout the year, focusing on key indicator species. Find out more: **somersetwildlife.org/wildlife/great-somerset-wildlife-count**

## Further advice:

We can give you bespoke advice on your school grounds.

Our team of Wilder Champions can help you identify how to improve your space for wildlife. Get in touch: **teamwilder@somersetwildlife.org**



A more formal site survey should also be done which involves your **school groundsperson**, your **outdoor learning/forest school lead** and at least one **classroom teacher**. You may want to identify which areas you want to focus on, and identify any limitations that could affect what you do, such as overhead cables and drains, and who you need to get permission from to make changes.



# Using school grounds for learning



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Some tools which help schools push forward their outdoor learning ambitions include: running CPD sessions, taking part in Outdoor Classroom Day, and asking teachers to identify a lesson each week/block they will lead outside.

In order to get all teachers onboard, commitment, mentoring and leadership is required!

Schools grounds are science labs, art studios, places of worship and theatres. The possibilities for curriculum-linked nature-based learning are many, here are some of the clearest links from the national curriculum. You will also see teaching ideas in pink speech bubbles throughout this pack.



## Curriculum Links

Whilst there are many cross-curricular links for core subjects throughout the pack, your school grounds can provide a plethora of inspiration for arts subjects. These curriculum links link to National Curriculum programmes of study can be easily included and adapted into a range of the activities included in this pack.

	Key Stage 1	Key Stage 2	Key Stage 3
English	Reading and writing: fiction, poetry and non-fiction inspired by nature. Writing: recount writing, explanation texts, non-chronological reports, persuasive posters, instructions, labelling and listing features.	Reading and writing: fiction, poetry and non-fiction inspired by nature. Writing: Diaries, non-chronological report, explanation texts, persuasive writing, formal and informal letters, creating and presenting a balanced argument.	Reading and Writing: fiction, poetry and non-fiction inspired by nature. Writing: Non-narrative texts, media articles/reports and speeches. Spoken English: Media articles/reports, speeches, debate related issues.
Maths	Using and applying: number, operations, fractions, geometry, pattern, measures, position and direction, data handling.	Using and applying: Solving practical and multi-step problems, fractions, percentages and decimals, operations, reasoning, geometry, measure, data handling.	Using and applying: appropriate operations, problem solving, estimation, percentages and fractions, proportion, geometry, statistics, creating and presenting data.

	Key Stage 1	Key Stage 2	Key Stage 3
Science	Working scientifically/ investigative skills. Exploring the 5 senses. Living things and their habitats- identify and describe common plants/ animals, simple food chains. Seasonal changes.	Working scientifically / Investigative skills. Plants- lifecycle and parts of a plant, photosynthesis, flowers. Living things and their habitats- adaption, food chains and webs. Animals (including humans) – classifying, systems Evolution and inheritance.	Working scientifically. Biology – structure and function of living organisms Material cycles and energy Genetics and evolution. Chemistry – Earth and atmosphere.
PHSE	Physical health and mental wellbeing through engagement with the grounds and teamwork.	Physical health and mental wellbeing.	Health and wellbeing through engagement with the grounds and teamwork. Living in the wider world.
Geography	Developing map skills. Identifying different habitats around the world and in the local area.	Developing map skills. Identifying habitats around the world and local ecology.	Geographical skills and fieldwork.
History	History of the local area.	The impact of human settlement on the local area.	Local history of land use and human impact.
Art	Famous artists work inspired by nature. Drawing, painting, sculpture and other art inspired by nature in the grounds.	Famous artists work inspired by nature. Drawing, painting, sculpture and other art inspired by nature in the grounds.	Famous artists work inspired by nature. Drawing, painting, sculpture and other art, craft and design techniques inspired by nature in the grounds.
DT	Developing technical skills in designing, making and evaluating own work through grounds related projects.  Exploring where food comes from. Growing and harvesting fruit and vegetables and prepare simple healthy dishes from what is grown.	Researching and developing technical skills in designing, making, evaluating and improving own work through grounds related projects.  Understanding the importance of a healthy diet. Growing and harvesting fruit and vegetables. Preparing and cooking healthy, seasonal dishes from what is grown.	Researching and developing technical skills in designing, making, evaluating and improving own work through grounds related projects.  Understanding the importance of health and nutrition. Growing and harvesting fruit and vegetables. Using a range of cooking techniques to create a range of healthy, seasonal dishes.
Music	Listening, moving to and appraising music inspired by nature. Creating soundscapes Representing nature through making music and singing.	Listening, physically expressing and appraising music inspired by nature. Representing nature through making music and singing.	Listening to nature inspired music from a wide range of genres and composers. Improvise, compose and perform music and song inspired by nature.
P.E	Dance and movement inspired by nature.	Dance and movement inspired by nature.	Dance and movement inspired by nature.
R.E	The role and influence of nature can be explored across the different religions studied. The grounds can be used as a place of contemplation, meditation and worship.		





# Where else to go for advice and information



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## 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

**somersetwildlife.org/team-wilder/team-wilder-resources** - habitat management resources, webinars and advice

**somersetwildlife.org/wildlife-gardening** - Wildlife gardening ideas, projects and inspiration

**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!

**creativestarlearning.co.uk** - resources and advice from a leading light in outdoor learning and play

**litterfreecoastandsea.co.uk/somerset/current-projects-and-campaigns/school-coastal-champions/** - Turn your school into a Coastal Champion! Work together and make positive changes that have big benefits for local nature, waterways and coastal environments.

**Pollinator project pack - somersetwildlife.org/what-we-do/restore-somersets-nature-campaign-nature/action-insects** - For teachers taking action for insects



## Plants (including trees)

**growwilder.co.uk** - for native and local wildflower plants

**wildseed.co.uk** - for native wildflower seeds

**Woodland Trust** - for free trees

**Community Gardening groups** - ask around and look on Facebook



## Kit

**nhbs.com** - for high quality wildlife ID and surveying kit

**muddyfaces.co.uk** - for outdoor play & learning resources

Facebook / Freecycle

B&Q, garden centres - may give away free plant pots and other growing resources



## Funding

**Grants4schools.info**

**www.itl.org.uk/projects/local-school-nature-grants**

**tescocommunitygrants.org.uk**



# Ponds - just add water!



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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.



TOM MARSHALL



## 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.

## Make a wildlife pond

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### You will need

- A big patch of garden

- Spade

- A plank of wood

- Spirit level

- Butyl pond liner

- Sand

- Water (use rainwater for best results)

- A variety of pond plants

- Large rocks

- 1 Choose your spot.\* Draw your pond outline and dig out, including some shallow areas.



Use a plank and spirit level to ensure that the edges are level.

- 2 Put a layer of sand at the bottom (don't use it all, you'll need some later).



- 3 Make a trench all around the edge of your pond, and lay the edge of the liner into this. Weigh it down with large rocks.



- 4 Fill the bottom with the remaining sand.



- 5 Fill the pond up with water.



If you fill it from a tap or hose your water might turn green - don't worry, this is just the minerals.

- 6 Leave your pond to settle for about a week before adding your plants.



- 7 Watch and see what wildlife visits.

Make sure you add a plank of wood, or something similar, as a ramp to help any wildlife that may have fallen in.



Remember: don't add fish or a pump. The fish will eat smaller life forms (including frog and newt larvae) while the pump may suck them up!

[www.wildlifewatch.org.uk](http://www.wildlifewatch.org.uk)

\* Look for a spot with plenty of sun, ideally with some shade in the afternoon. Try to avoid trees nearby, as fallen leaves can pollute the pond.

Illustration: Corinne Welch © Copyright Royal Society of Wildlife Trusts 2015



## 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.



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## How to build a mini wildlife pond

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### You will need:

- an old bucket or watertight container



- spade



- sand



- old bricks, rocks and pebbles

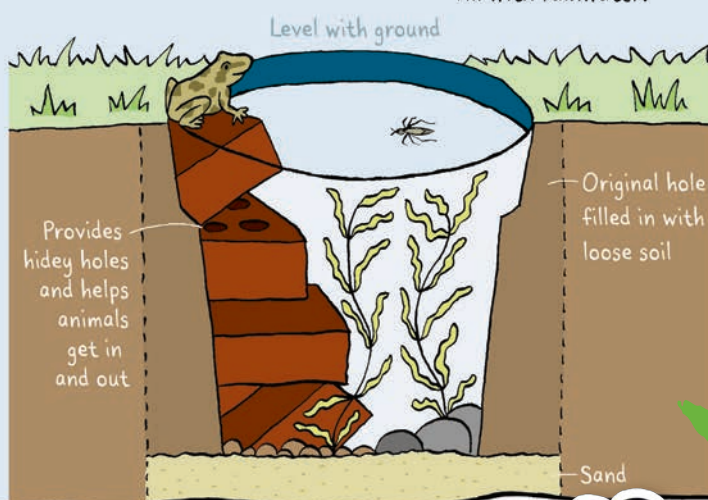


- native pondweed (eg. curled pondweed)



- 1 Dig a hole deep enough to hold your container.
- 2 Remove any sharp rocks and line bottom with sand.
- 3 Sit the container in the hole and fill the gaps with loose soil.

- 4 Build a pile of rocks and bricks in bottom, scatter pebbles and add pondweed. Fill with rainwater.



[www.wildlifewatch.org.uk](http://www.wildlifewatch.org.uk)

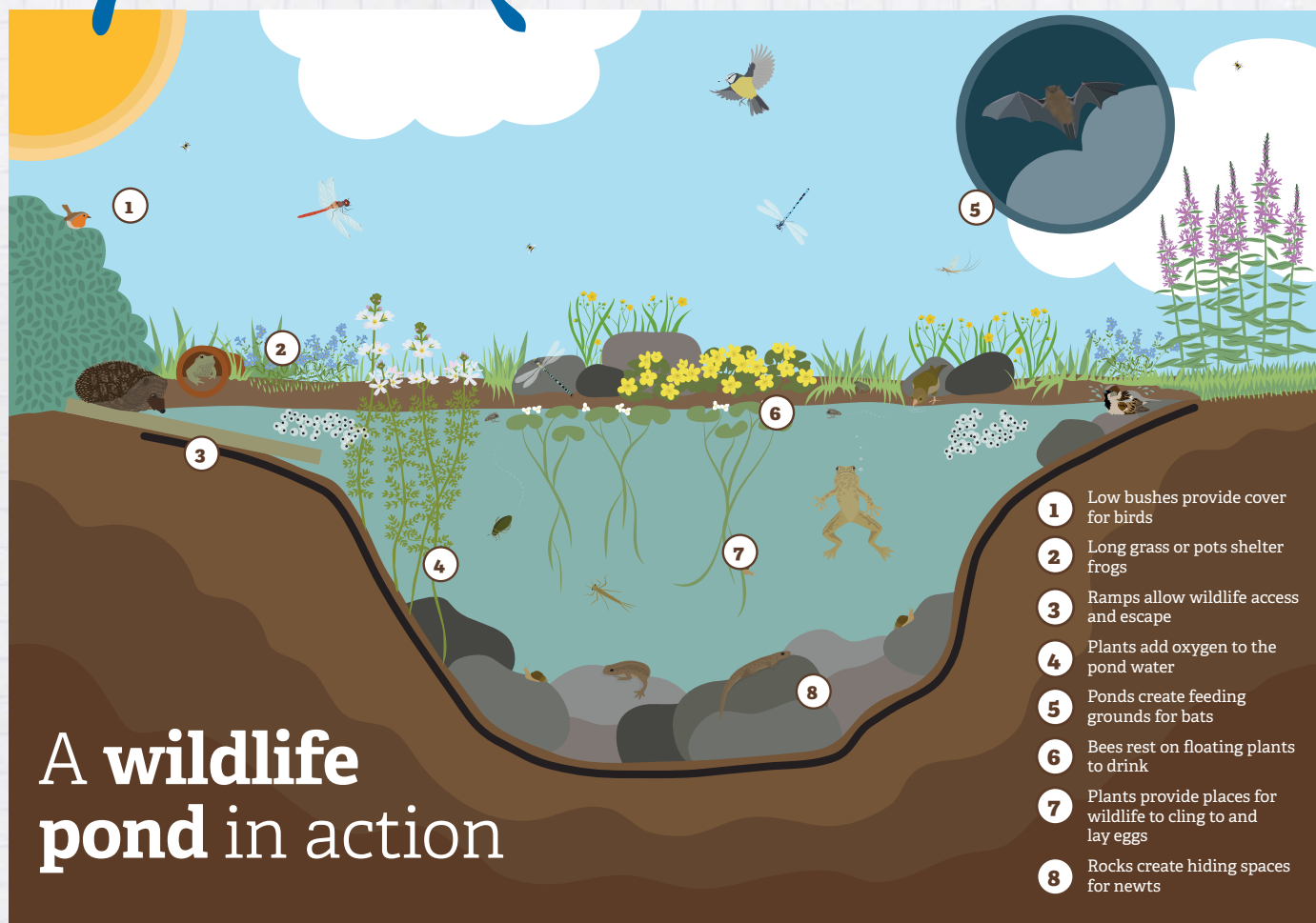




# Pond planting



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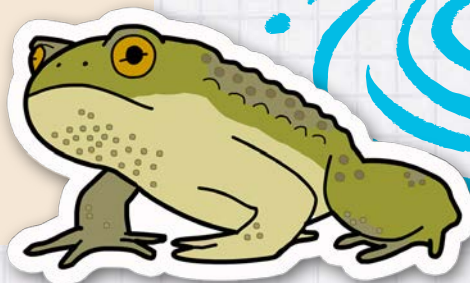
## A wildlife pond in action

- 1 Low bushes provide cover for birds
- 2 Long grass or pots shelter frogs
- 3 Ramps allow wildlife access and escape
- 4 Plants add oxygen to the pond water
- 5 Ponds create feeding grounds for bats
- 6 Bees rest on floating plants to drink
- 7 Plants provide places for wildlife to cling to and lay eggs
- 8 Rocks create hiding spaces for newts

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.

There is a step by step guide, including suggestions of what plants to buy at [wildlifetrusts.org/actions/how-build-pond](http://wildlifetrusts.org/actions/how-build-pond)

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





# Pond maintenance



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## 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, swill 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.



ANNA WILLIAMS

## 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.



ANNA WILLIAMS



# Wildflower meadow



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## 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 any area of school field you don't use for sports, it is cheap and quick to create your own, 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.

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.



NICK TURNER



GILLIAN DAY

Wildflower meadow in progress at St Michael's Junior School in Bath



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](http://wildlifewatch.org.uk/actions/how-create-container-garden-wildlife)



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](http://wildlifetrusts.org/actions/how-grow-wild-patch) and [wildlifewatch.  
org.uk](http://wildlifewatch.org.uk) for advice



**Selfheal**



**Bird's Foot Trefoil**



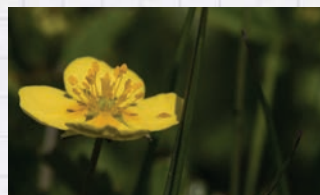
**Fox & Cubs**



**Common Catsear**



**Lady's Bedstraw**



**Tormentil**



**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.

Wildflower photo credits:

Top Row L-R: Lana Huntley, Kirsten Smith, Richard Burkmar, Tricia HaighMiddle  
Row L-R: Philip Precey, Chris Lawrence, Olli Kilpi, Lee SchofieldBottom Row L-R:  
Richard Burkmar, Philip Precey



# Butterfly and moth garden



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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



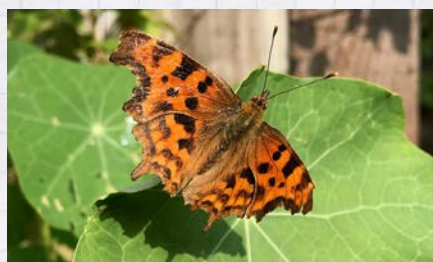
**Holly blue butterfly**  
Caterpillar food: Holly and ivy



**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



**Poplar hawkmoth**  
Caterpillar food: Polars, aspen, willow



**Burnet moth**  
Caterpillar food: Bird's foot trefoil

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



# Food growing



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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.

Curriculum links are endless. Food connects us across cultures & continents, through recipes & storytelling. You could build an entire topic on the humble potato, including its origins in Peru, its migration to Europe via the Conquistadors, and the value of diversity (there are 4,000 + varieties of potato in the world!)

To find out more – RHS Campaign for School Gardening has a wealth of free resources to help you at all stages. See [schoolgardening.rhs.org.uk](http://schoolgardening.rhs.org.uk)



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



**Sow outdoors**



**Sow indoors**



**Plant out**



**Harvest**

# Wildlife friendly garden management



**wildlife  
watch**

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](http://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 learning about wildlife friendly food growing at Grow Wilder.



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.

## 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.



# wildlife watch



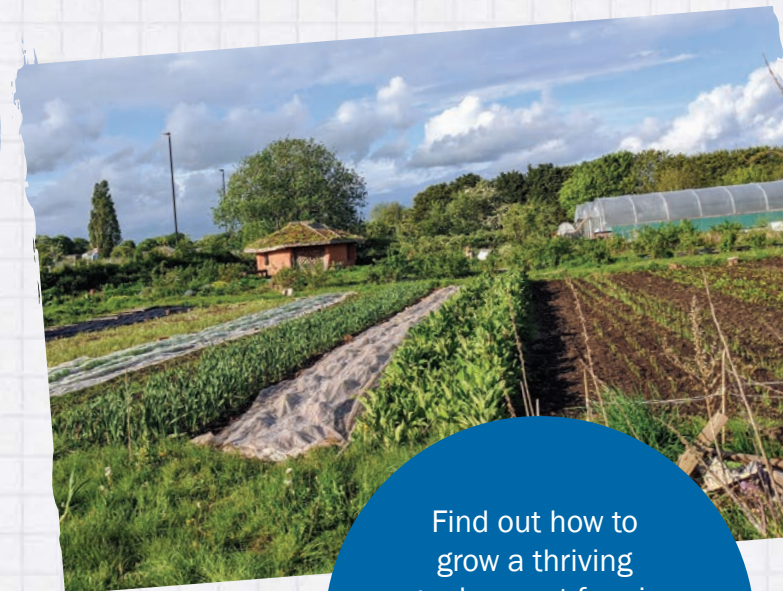
Pupils at St Barnabas Primary in Bristol enjoying watering their new plants

PAUL GILLIS

## The problem with peat

Peatlands are amazingly wild places, home to rare plants, birds and insects, and storing vast amounts of carbon.

We're so lucky to still have precious peatland in Somerset, so it's vitally important to always avoid peat-based products when gardening.



Find out how to grow a thriving garden peat-free in your school ground  
[somersetwildlife.org/actions/how-go-peat-free-home](https://somersetwildlife.org/actions/how-go-peat-free-home)



# Trees and hedges



**wildlife  
watch**

Trees are like all-inclusive hotels for wildlife – nectar, seeds, fruit, nuts, leaves, sap, bark & 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.

## Enhancing the wildlife value of existing trees:

- Erect bird and bat boxes in your trees, see page 23.
- 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.



## 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.



## 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 & 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**



# wildlife watch

The Woodland Trust offers free trees to schools, including packs suitable for growing hedges and orchards. Sign up to the Team Wilder newsletter for grant updates!



## 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



**wildlife  
watch**

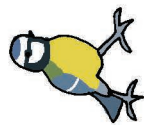
On the next few pages are some of our Wildlife Watch sheets. There are many more available by heading to **wildlifewatch.org.uk**. These helpful instructions can be easily adapted for use in teaching English, Maths, Science and DT across Key Stages 1, 2 and 3!



- How to make a nest box
- Make a bug hotel
- Make an insect hotel
- Make a deluxe hedgehog house
- How to build hidey holes







# How to make a nest box

wildlife  
watch



## What you need:

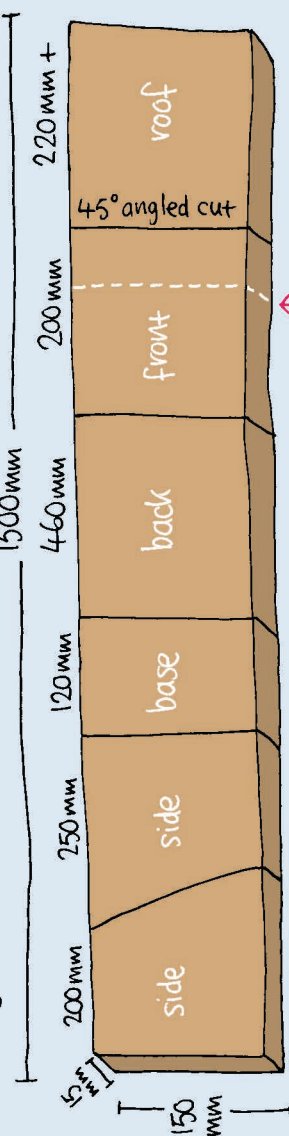
- rough cut timber
- some old rubber or a hinge
- 20mm nails

• tools:



- ▶ saw
- ▶ hammer
- ▶ hand brace or drill
- ▶ pencil, ruler and 'scissors

always get an adult to help with tools!



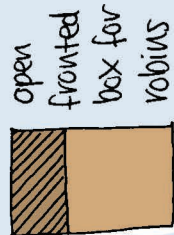
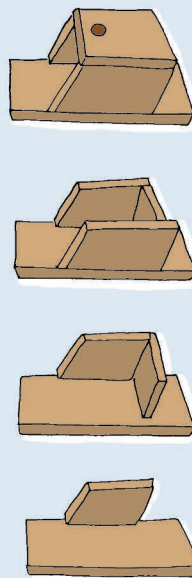
cut along dotted line for open-fronted robin box

## 1 Mark out and saw panels

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

## 3 Assemble the box

Nail the panels together:



open-fronted box for robins



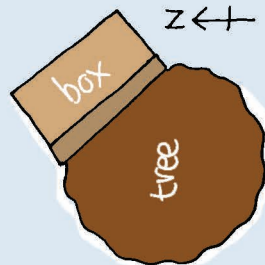
hole-fronted box:  
blue tits (25mm)  
great tits (28mm)  
sparrows (38mm)  
starlings (45mm)

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



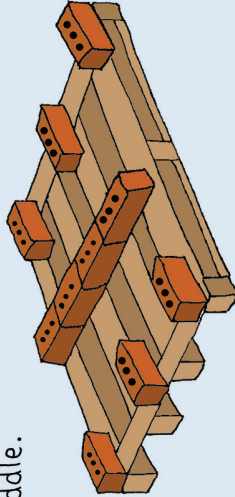
wildlife  
watch



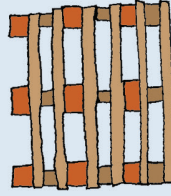
## You will need:

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

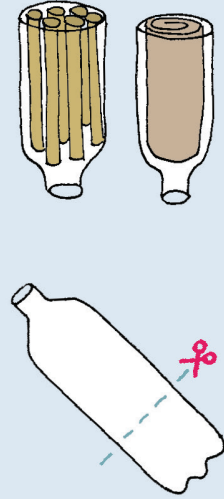
- 1 Place a wooden pallet in your chosen location. On top of the pallet, line bricks around the corners and across the middle.



- 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

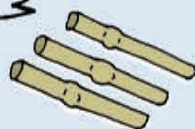


wildlife  
watch



## 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

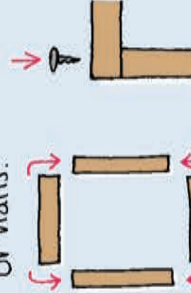
An adult to help with tools:

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

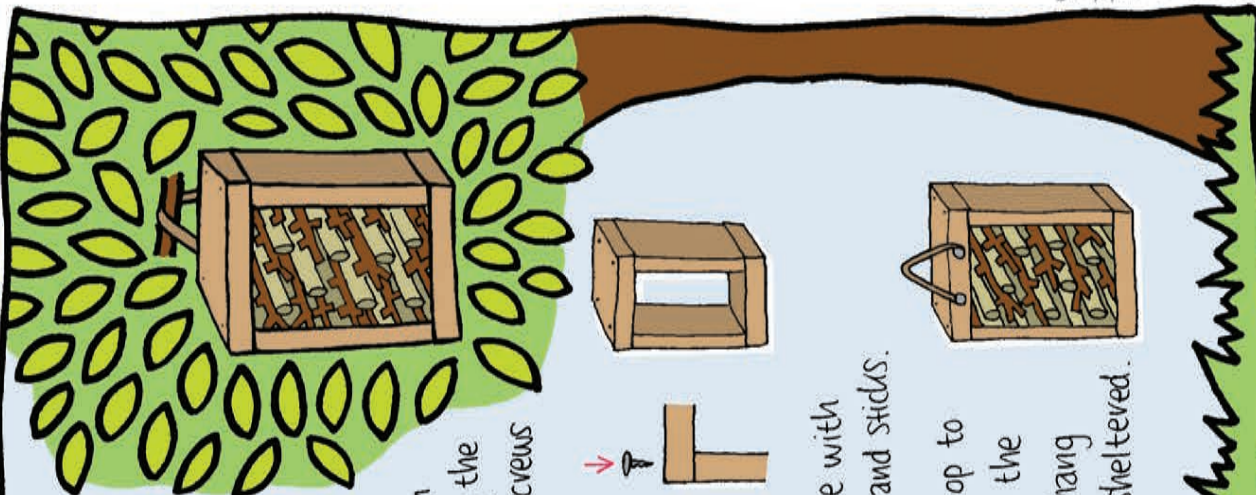


1 Make a wooden frame, fixing the wood with screws or nails.

2 Fill the frame with stems, twigs and sticks.



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



© Corinne Welch 09



# 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



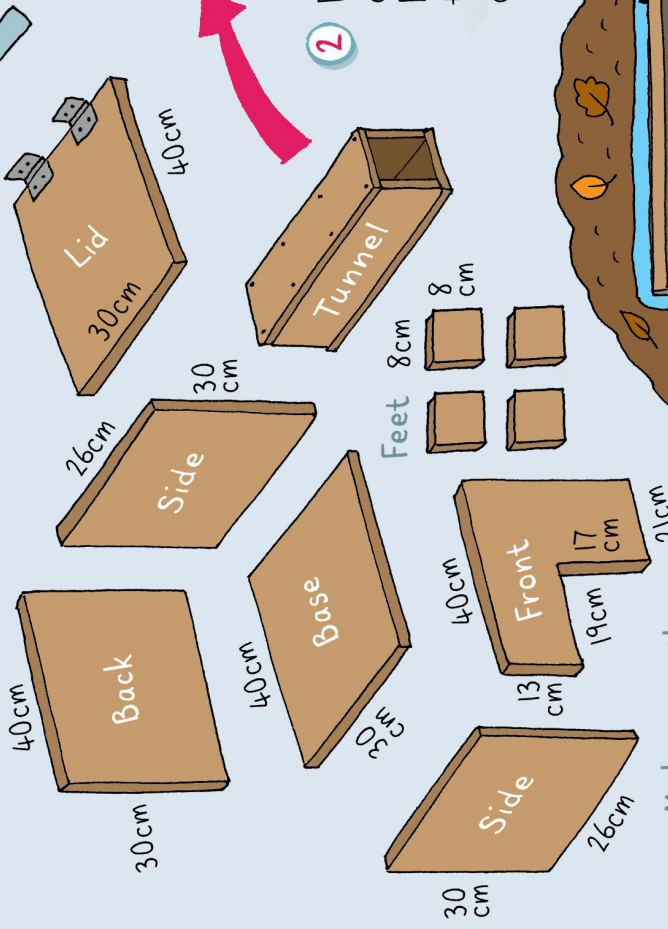
- Newspapers

- Polythene sheeting



Do not  
creosote  
or treat  
the wood

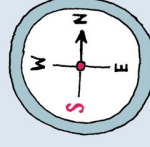
- 1 Construct the hedgehog house from the following diagram and dimensions.



2

- 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



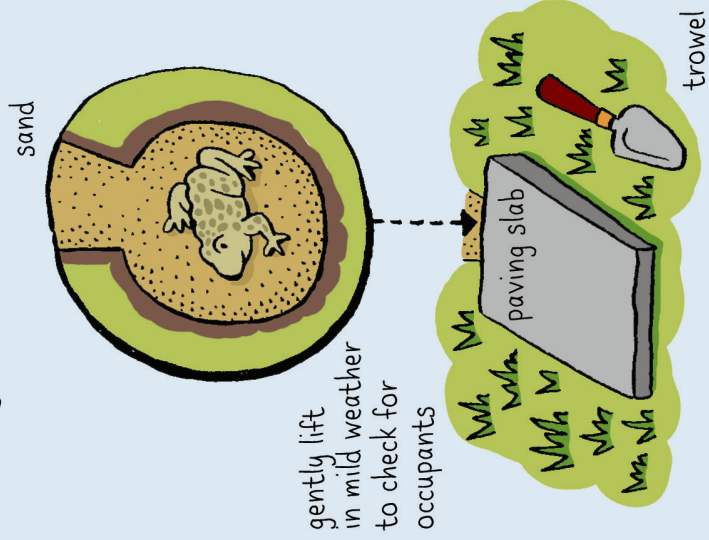
raised up on feet



# How to build hidey holes

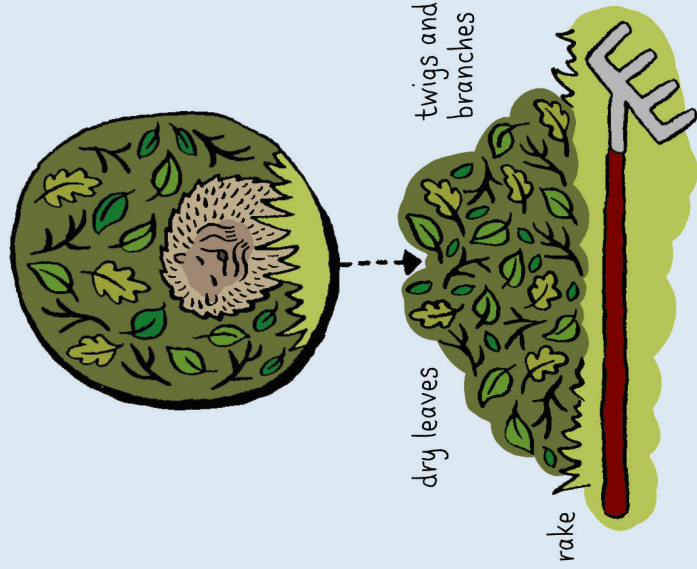
## For amphibians

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.



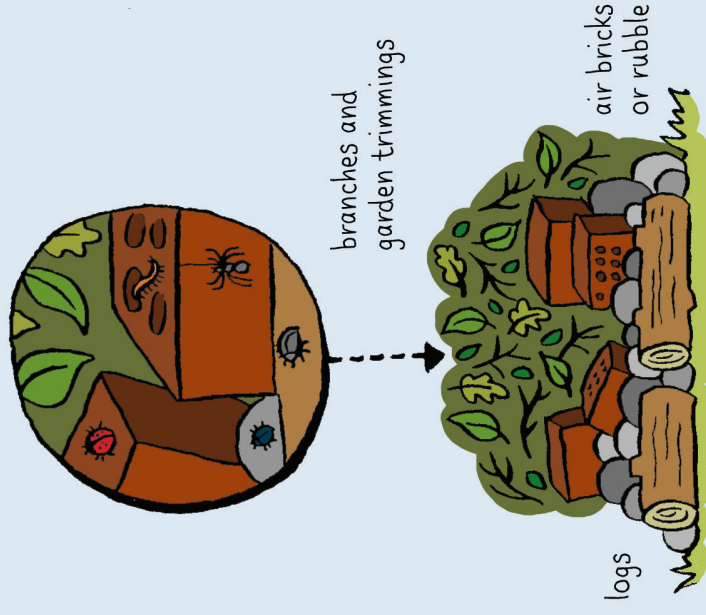
## For hedgehogs

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.







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Awarded funds from



**To find out more:**

Email us: [teamwilder@somersetwildlife.org](mailto:teamwilder@somersetwildlife.org)