



Kew Wildlife Zone: Environmental Projects

Working in the Wildlife Zone at Kew inspired a range of exciting projects and ideas. This detailed case study covers the habitat development work we undertook, the children's involvement, and suggestions for your own wildlife projects.

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Introduction

Working in wildlife areas like the Wildlife Zone at Kew fulfils a range of curriculum criteria. As well as those in Science, you can also use your local environment for inspiration for other curriculum topics such as Art and Design and Literacy. Learning about local environments, and taking steps to be responsible for it, is also a key part of the Citizenship and Geography syllabus. In fact there is almost no curriculum area that cannot be developed using the wildlife zone, or a similar wildlife area at school or your local neighbourhood .

The following sections give ideas of classroom and outdoor projects that you might like to try, based on the activities that children have worked on at Kew.

Getting Creative

Your local natural environment can provide inspiration away from the boundaries of the classroom, books and computers. The 'real life' wriggling, bristly, delicate, smelly and colourful plants and animals that you discover in your habitats can inspire artwork, models, posters, stories and theatre.

See the Schoolwork Gallery for some examples of the creative work by children at Queen's and Unicorn school. www.kew.org/education/wildlifezone

Models

Children at Queens C of E Primary School made models of the animals they studied, using clay moulded around a wire framework. These were then oven-baked and painted with acrylic paints.

Posters – life cycles and food chains

Children from Unicorn School made posters showing the life-cycles of selected organisms. While some children drew different stages of the life cycle (e.g. egg, tadpole and frog), others researched and wrote "fact boxes".

These different elements were cut out and glued onto the poster, with the different life cycle stages linked by arrows.

Children also used a similar process to make 'food chain' posters. A food chain is a diagram showing how the food energy moves through a habitat. All food chains start with a green plant. These are eaten by herbivores, which in turn are eaten by carnivores. Arrows show the direction that the food moves in, and can be translated as 'is eaten by'. NB: Many children get the arrows the wrong way round!

There are lots of other ways of displaying food chains. Food chain mobiles work well, as do a number of role-play or game activities (see Chapter 4).

Fact booklets

Children from Unicorn School each chose a plant or animal to study. They researched their chosen organism using books and the web. They were encouraged to explore aspects of their organism's life cycle – what it needed in terms of food, water and shelter – and to consider how different things in the habitat met those needs. Some children also looked at conservation aspects, and considered why their organism was important.

Compiling the information for the booklets covered many Literacy links, including researching a subject, writing for different audiences and structuring non-fictional writing.

The children then collated their research into booklets, on A4 pages folded in half, stitched together down the spine.

The children designed the artwork on their book covers by studying how other books are designed. Some children included bar codes and jacket 'blurb'. Making and designing the booklets covered a range of criteria in the Art and Design and Technology curriculum.

Audio-visual Presentation

Several children from Queens C of E Primary school worked together to research, collect images, write and deliver a PowerPoint presentation on 'Owls'. This supported key skills such as working in a team, presentation and ICT.

Stories

Habitats and their wildlife can be great inspiration for storytelling, whether this is verbal or written. Some children at Unicorn School made up stories based on the idea of being shrunk down to the size of one of the small creatures from their chosen habitat.

Creating a wildlife area – how we did it

Creating a wildlife area is a long-term project. It can be on any scale, from planting a few window boxes with insect-friendly flowers, to a full-scale habitat creation project like the one that we undertook in Kew Gardens.

Large projects need to be planned with care. Using a few project management techniques will mean you to get the best from the work that you put in, and help ensure that your project is a long-term success.

We used techniques such as brainstorming, encouraging children to research and design the site plans, building communication between the children and contractors, and allowing children to be involved in the creation itself. You may find these useful in your project too.

Site visits

Children from Unicorn School and Queen's School were introduced to the site through a preliminary visit, during which they met some of the staff at Kew, and also had chance to explore the area and learn about it 'on the ground'.

Children took this opportunity to measure the site, make drawings and record some of the wildlife that was already there.

As the area chosen was not open to the public, and contained potential hazards, these visits were planned in conjunction with Kew staff and were fully supervised.

After this initial visit, the children were also welcomed back to the site as and when they needed to visit. On each occasions, the children had a guided tour/ activities and staff discussed with them the work in progress, and solicited ideas and feedback.

Brainstorming

We invited the children from the two schools to come up with ideas for the design for the Wildlife Zone, in brainstorming sessions. The purpose of a brainstorming session is to generate ideas, not to evaluate them. Children should be encouraged to think creatively, without fear that their ideas will be judged.

Ideas that were needed included:

- What sort of activities and subjects could we study with schools at the site?
- What they think will be seen at the site in each season?
- What stories or pieces of information are important about the site that we need to tell the public about?
- How should we display this information, e.g. sculptures, panels, trails?
- What should we put in and around the site to help wildlife use it, e.g. animal hiding/nesting places such as bird boxes?
- What should we put in and around the site to help people use it, e.g. chairs, huts?

The role of the brainstorming facilitator

Before the session, think about where you would like the discussion to go. List the topics that are important so that you can ensure that they are covered.

- Set a duration time for the discussion.
- Explain the ground rules:
- Chose and explain a system for speaking to avoid everyone shouting ideas at once.
- Explain the purpose – to generate ideas
- Explain the end-point – a list of ideas that can then be discussed.
- Silly ideas are allowed! Sometimes a patently daft suggestion from one person can spark a useful idea in another.
- Ideas should be written on a board as they are raised so that everyone can read them.

It is very easy for the conversation to shift to an evaluative mode, e.g. “that won’t work because...”. Redirect any comments like this, explaining that any ideas are allowed in brainstorming and that assessments should wait for the next phase.

As the facilitator, you will need to direct the discussion, to steer it away from entrenched ideas, or if the discussion is going off on a tangent, bring them back with “what about... [a topic that hasn’t been covered yet]?”, e.g. “What do you think the birds would need in our wildlife area?”.

Try to make sure that all the children are involved, and the session is not dominated by a few vocal ones. Brainstorming sometimes works better with a smaller group rather than a large one, so that every child has the opportunity to contribute.

Some children may need more encouragement to produce ideas from the top of their heads. Remind them that in brainstorming there are no wrong answers or silly suggestions.

At the end, thank the group for their ideas.

Designing the Wildlife Zone

After discussion, children took ideas from the brainstorming session, and incorporated the ones they liked into designs for the new wildlife zone. They worked in groups, with each group drawing up a plan of their proposals.

These plans used the measurements and drawings that children had made on their first visit, and involved choosing appropriate scale factors.

The plans were then shown to the contractors who had been hired to do the heavy structural work. The contractors took these plans, and used them to come up with the final design.

The importance of communication

We established a good three-way communication process between Kew staff, the contractors working on the project, and the schools.

The children presented their work to Kew staff and the building contractors using illustrated talks, and by showing them their posters and design plans. This was a particularly useful session as children built their presentation and argument skills as well as feeling ‘listened to’ by professionals. At the end of the term, the children made a display at the school of all their plans and research, which staff from Kew visited. Parents were also invited to see the display, so this gave a valuable opportunity to share the work with adults in the community.

Using the children’s ideas gave the contractors a great start on the site plan. Some of the ideas were wonderfully imaginative, but not practical, because they were too expensive, or difficult to build, e.g. a glass walk-through tunnel running under the pond to give an underwater view. The staff thought this was great, but unfortunately the budget wouldn’t stretch to it!

In their presentations, the staff gave positive feedback to the children, explaining why they had chosen to use some of the ideas in the children's plans, but not others. Just because an idea wasn't taken up doesn't mean wasn't a good one. The staff explained to the classes why certain ideas were chosen. These reasons included:

- cost
- practicality
- improving diversity (attractive to wildlife)
- sensitivities of the site

These presentations gave children a valuable opportunity to see how decisions are made in the commercial world, and gave them a real sense of involvement in the development process.

In the second year of the project, two representatives from the year-groups that were involved in the planning stages met with the incoming year. Peer-to-peer discussions helped to form a sense of ownership in the children that would be more difficult to achieve if just a 'top-down' approach had been taken.

Our Wildlife Zone

Assessing what is already there

The area that you have chosen for your wildlife garden will usually already have some wildlife using it! You need to ensure that you protect any valuable habitats or species while you are making your changes, and that your plants will genuinely improve the wildlife value of your site.

At Kew, we are lucky to have plenty of botanists (plant scientists) on site. They had surveyed the area and told us which plants grew there. We also asked specialists to do insect and wildlife surveys.

We originally thought that we could fill the old gravel pit to make a 'ready-made' pond, but our surveys showed that badgers were using it, and also a rare type of bee and some unusual soldier flies lived there. The grassland next to the gravel pit, though, had nothing as important there, so we decided to dig the pond there instead.

It's important that the children take part in as much of the survey work as possible. This makes them think carefully about the site, the practicalities of developing it and how to achieve 'the best options' for a site.

If you would like to survey your proposed site, contact your local Wildlife Trust – details are in Chapter 8 (Resources).

The build

Creating the Wildlife Zone was a big project. Most of the hard landscaping (digging the pond) was done by machine, and contractors created the paths, boardwalks and hide. The British Trust for Conservation Volunteers (BTCV) did four days work at Kew to help clear overgrown vegetation from the site. The schoolchildren who had helped to design the site were invited to help plant up the pond and gravel pit.

Features in our Wildlife Zone

Pond

A pond was the central feature of the Wildlife Zone. In the final design, the pond was large, at 15 metres wide and 1.5 metres deep. We employed contractors who used a JCB to dig it, then lined it with Rawmat high density bentonite pondliner (For supplier, see Rawell Environmental Ltd. – details in Chapter 8, Resources). There were several options of lining material that we could have used, but we chose the one that was most suitable for the size of pond, our budget and requirements. Another option we

considered was puddled clay. This gives a more 'natural' pond, but is expensive, time consuming to put down, very messy and tricky to get right. Also getting it to the site would have been problematic.

The contractors put some soil back into the pond to protect the liner and to give something for the plants to grow in. They used nutrient poor sub-soil which is the soil that lies underneath the nutrient rich top-soil. Soil that is rich in nutrients would have made the pond go green with algal growth. We then we left the pond to settle for two months.

In spring, the children helped to plant the pond. We chose a mixture of plants. Some grow below the surface and add oxygen to the water, others have floating leaves that provide shade, and plants that grow on the margins offer shelter for creatures that like the damp mud, and help them to climb in and out of the pond.

Before the planting visit, parents were informed that children would need to wear wellingtons and old clothes. We also asked for as many parents/helpers as possible.

Pond plants that we used

White Water Lily (<i>Nymphaea alba</i>)	Floating
Hornwort (<i>Ceratophyllum demersum</i>)	Oxygenator
Spiked Milfoil (<i>Myriophyllum spicatum</i>)	Oxygenator
Amphibious Bistort (<i>Polygonum amphibium</i>)	Oxygenator
Marsh Pennywort (<i>Hydrothyle vulgaris</i>)	Marginal
Water Forget Me Not (<i>Myosotis scorpioides</i>)	Marginal
Skullcap (<i>Scutellaria galericulata</i>)	Marginal
Flowering Rush (<i>Butomus umbellatus</i>)	Marginal
Meadowsweet (<i>Filipendula ulmaria</i>)	Marginal
Water Mint (<i>Mentha aquatica</i>)	Marginal
Branched Bur-weed (<i>Sparganium erectum</i>)	Marginal
Marsh Woundwort (<i>Stachys palustris</i>)	Marginal
Yellow Flag Iris (<i>Iris pseudacorus</i>)	Marginal
Yellow Loosestrife (<i>Lysimachia vulgaris</i>)	Marginal
Purple Loosestrife (<i>Lythrum salicaria</i>)	Marginal

Pond-dipping platform

In their designs, the children suggested a pond-dipping platform along one side of the pond, to make it easier to get close to the water and explore the life in it. The contractors, Lloyd Turner Ltd, Ecological Construction Solutions built a beautiful decking platform, with plenty of space so that children won't get crowded and pushed into the water, and with a rim around the edge for safety.

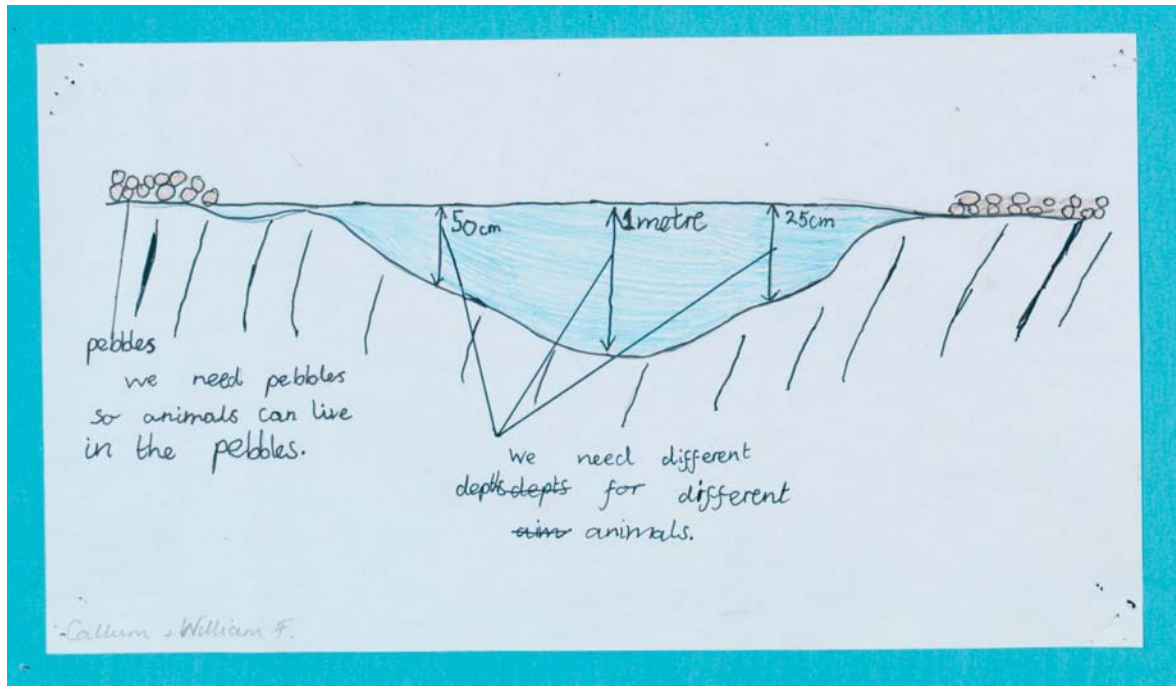
Remember – it is important to have at least some of a pond edge left natural and gently sloping, so that creatures can easily get in and out.

Pond design

Some of the children researched design considerations for wildlife ponds, and their findings were incorporated into the plans.

A good wildlife pond should have gently sloping sides so animals can get out easily, and a range of depths. Different plants and animals prefer different depths of water, so shelves at different depths will encourage a good diversity of wildlife.

See p5.10 for more on how to build a wildlife pond.



A pond design researched by children from Unicorn School.

Dead-hedge.

Staff and volunteers built a dead-hedge to give somewhere for minibeasts to hide. Garden staff started the dead-hedge by putting two rows of posts into the ground, with about half a metre between each post. Then the children helped to stuff it with deadwood such as 'brush' (dead twiggy branches) and logs. Each layer was packed down firmly to make a neat, strong wall. The packed twigs and dead wood provides lots of hiding places for minibeasts, mice and other small creatures.

Wildflower plantings

The area surrounding the pond was already good wildflower grassland with some interesting flowers in it, so we didn't need to do anything to this other than keep the mowing regime that Kew Gardens staff use to encourage butterflies. Most grass in the conservation area is only cut once, at the end of the summer. This allows time for most of the caterpillars that feed on the plants to complete their feeding. It also lets the grassland plants flower and set seed. Grass does need to be cut at least once every couple of years, or scrubby plants like hawthorn begin to take over and eventually smother the grassland flowers.

Instead of changing the grassland, we planted Teasel (*Dipsacus fullonum*) and Yellow Loosestrife (*Lysimachia vulgaris*) on the sides and bottom of the gravel pit. These plants are good for birds and insects.

We bought these plants from a nursery, where they had been grown in pots. If you have the space and facilities, you could try to grow them from seed.

Sculptures

Kew commissioned a 'chain saw' sculptor (Paul Sivell – contact details in Chapter 8) to carve some giant wooden pond creatures to 'live' by our pond. These are a fun addition to the Wildlife Zone, and are appreciated by the many human visitors that come to Kew Gardens.

Children could think about creating sculpture – either ephemeral from natural material, or perhaps from recycled materials to add extra interest to their pond.

Viewing platform

Our Wildlife Zone is out of bounds to the general public. Only pre-booked schools are allowed in there, to keep the area as undisturbed as possible for wildlife. However, we wanted visitors to see and enjoy what we had created, so we built a viewing platform. This was designed and built by contractors, Global Impacts (details in Chapter 8), and has six windows that look out on each of the key habitats in the Zone.

Spreading the word

Here are some ideas for ways to tell other people how important your local biodiversity is:

- Open an area to the public
- Invite parents
- Make a poster
- Hold an Open Day
- Make interpretation panels for your site
- Hold an exhibition of art, models and creative writing inspired by your biodiversity project
- Make leaflets
- Write an article for a local magazine or newspaper
- Create a play and act it out for parents
- Create sculptures for your wildlife area
- Include wildlife reports in your school newspaper
- Create a 'Discovery trail' around a local park
- Give a talk to your local gardening club (or similar) about the wildlife you've discovered in your area

Maintenance and change

Remember to include maintenance in your planning and budgeting. A wildlife garden should get better over the years as it becomes more established, so allow for this.

Another important aspect for a large wildlife project is continuity. Individual teachers (and keen children and parent supporters) come and go, so it is important to get backing from teachers as a whole, governors, and other staff members (e.g. grounds people) who may be involved in maintaining and using your wildlife site. Something that is just one person's 'pet project' which will quickly become dilapidated if that person leaves!

Use long-term records and surveys as study aids. Explore how the project has changed over time, e.g. Are more birds and insects visiting than a few years ago etc? How is the site developing? You could monitor tree growth each year, or study the plants to see how long it takes for a good mixture to get established.

Take regular photos!

Outcomes

Outcomes of a project are the things that you measure or report on. It is always worth monitoring your outcomes, so you can judge the success of a project, and also demonstrate your success to people who may be interested – from school inspectors and funders, to parents of potential pupils.

Photographs are very useful for this!

The site or project itself is the key outcome! A wildlife garden buzzing with insects, or a pond teeming with life can be judged as a success.

There will also be other, less tangible outcomes. Those that we identified in our Wildlife Zone project included:

- A new resource and inspiration for schoolchildren
- Wildlife benefit
- A sense of ownership and involvement
- Building teamwork within the class and between staff
- Long-term benefits include a study resource that will provide inspiration for years to come.

Who to involve

Parents: are likely to have skills and contacts that may be useful, or even just offer a willing pair of hands.

Local authority: ask them if there are any local grounds or projects that your school could be involved in.

Local park authority: will be able to identify wildlife areas that your school may be able to study. They may even be willing to let you help manage an area.

Planning officers: for a large-scale project, especially one that involves buildings, you will need to contact your local planning officers.

Local Wildlife Trust: there may be a local nature reserve that your school could visit or help manage. Your local Wildlife Trust may also be able to offer advice on your project.

Local naturalists: may be able to offer advice, and possibly help with surveying your site for wildlife, and helping you to identify the plants and animals that you find.

Local botanic garden: may have wildlife gardens that you can visit, and staff may be able to offer advice on wildlife gardening.

British Trust for Conservation Volunteers (BTCV): their volunteers do practical environmental work.

Local companies: for support, money, manpower or goods and equipment.

A local company might have grounds that your school could help to design a wildlife area for.

Local press: you might be able to persuade your newspaper to offer a monthly column on what's happening in your wildlife area.

Gardening Club: you may find people who are willing to advise or help on your project.

Fundraising

Large projects will always need substantial funding. Fundraising may even be necessary for very modest projects – the cost of a packet of seeds still has to come from somewhere. The project at Kew Gardens was generously funded by Hanson plc and Hanson Environmental Fund.

First of all, work out how much you need to raise. In your budget include

- cost of equipment
- contractors
- materials
- ongoing maintenance (year-on-year)
- signage
- any extra insurance cover

etc.

For relatively small amounts, the usual jumble sale, plant sales or sponsored events can be very effective. For larger amounts though, a different funding strategy will be needed.

Local companies may be willing to offer gifts in kind, products e.g. seeds, bags of potting compost or wood off-cuts.

Money is available from grant-giving bodies such as the National Lottery, Company charitable funds and Charitable Trusts. There is plenty of information on fundraising on the web, much of it from local authorities. See also Chapter 8 for further sources of funding and advice.

Making a wildlife pond

Where to site it

The pond should be sited on level ground. If the area is sloped, you may need to terrace it (build up one side to make a level surface).

A pond needs sunlight for the plants to thrive, so should be built in a reasonably sunny place. Do not put it under trees or shrubs. As well as being too shaded, your pond will fill with leaves every autumn.

Many of the animals that will visit your pond will like to hide, so it is best not to put the pond in the middle of a lawn. Consider linking your pond to other habitats using swathes of long grass. Log piles, rock piles or dead hedges (see p.5.06) near your pond will also be appreciated by your wildlife.

When to build it

The best time of year to create a pond is in November or early spring. This gives the pond time to settle down before the growing season. However, a pond is so good for wildlife that you should not let timing put you off making one!

How big to dig it

The size of your pond will, of course, be dictated by the space you have available. The general rule is the bigger the better. A pond should be at least 60 cm (2 ft) deep so that some always stays unfrozen in winter, and the animals can avoid overheating in the summer.

The hole will need to be slightly deeper than you want the pond to be to allow for the liner. This will mean a lot of digging!

Remember to check that the edges are level. You can do this by laying a plank across the hole and putting a spirit level on it. Do this both lengthways and widthways. You may find that you need to build up one edge. You should keep the edges level as the water will find its own level and any exposed liner is likely to perish more quickly in sunlight.

Think about what you are going to do with the soil you dig out. Instead of disposing of it (which will cost money), you could use it to make a bank on the sunny side of the pond for wild flowers.

You could also use some of the turf that you took off when you started digging the pond to line the edges. If you plan to do this, then dig the turf off in neat sections and store it carefully so that it does not dry out.

Shaping your pond

A wildlife pond should have different depths to encourage a range of plants and wildlife. You should shape your pond so that there is at least one shelf. Two shelves, at 20 cm and 40 cm would be ideal.

Remember to have at least one edge with a shallow slope so that creatures can climb in and out easily.

What to line it with

There are many types of pond liner available. Traditionally, ponds were made with puddled clay, but this can be expensive and difficult. Ready-formed pond liners are available, but it is easier to dig a hole the shape that you want, and use a flexible pond liner.

We used a type of high density bentonite pond liner called Rawmat. Although this is not cheap, it is self-sealing, so small puncture holes do not cause leaks. This is a good solution for large ponds where fixing leaks would be very expensive.

For smaller ponds, a butyl liner of the type sold in most garden centres is perfectly adequate. Make sure that the one you use has a good expected lifespan (20 years or so).

You will also need something to line the hole with, to protect the liner. You can use newspapers, old carpet or fine sand – anything to provide a protective layer.

How much liner to buy

To calculate the amount of liner that you will need:

Length of liner = twice maximum depth of pond + maximum length of pond + 1m excess.

Width of liner = twice maximum depth of pond + maximum width of pond + 1m excess.

Alternatively, when you have dug your hole, lay a tape measure across the length and width of the pond, following the curve of the soil to the deepest part and out again, to give the length and width of liner you will need. Allow plenty of extra for the edging.

Filling the pond

Place the liner centrally over the hole, and make sure that there is plenty of slack on all sides. Weigh down the edges with stones.

If you can, use rainwater to fill the pond, as tapwater contains higher levels of nutrients and contaminants. You can collect rainwater in water butts, but you will need a lot to fill the pond. Using tapwater from a hose is the easiest method.

Fill the pond slowly. The liner will stretch to fit most of the contours. With complex or sharp curves you may need to fold or shape the liner by hand. As the water level rises move the stones to allow the liner to sink into the pond.

When the pond is full, you can trim the liner, leaving at least 20 cm (8 inches) around the edges.

You should add some soil to your pond, to give the pond plants something to grow in. Do not add normal garden soil as this will contain too many nutrients that will encourage algae. You can use washed sand, or the subsoil that you dug from the hole – this will be the lighter coloured soil that you reached as you dug deep. Remember to remove sharp stones that might puncture the liner.

When you have filled your pond, leave it for at least a couple of weeks. This allows the soil to settle, and also allows time for any chlorine in the tapwater to evaporate off.

Edging the pond

You will need to edge the pond to cover the liner. You can use flat or rounded stones (not sharp ones), logs, soil or turf.

If the pond is going to be visited regularly, especially if you are going to use it for pond-dipping, you should consider having one edge as a boardwalk or other firm path. For pond-dipping, this should be along an edge that slopes quite steeply.

Plants for the pond

For a wildlife pond, you should try to use native plants. Plants that are from your country, and even your area, are usually better for wildlife as the creatures have had many thousands of years to adapt to them.

You should ensure that you have a mix of different types of plant. Underwater plants, such as curled pondweed (*Potamogeton crispus*), hornwort (*Ceratophyllum demersum*), and spiked water milfoil (*Myriophyllum spicatum*) oxygenate the water and provide somewhere for underwater creatures to hide. Avoid planting Canadian pondweed (*Elodea canadensis*), as it has a tendency to grow fast and swamp all other plants.

Floating plants, such as white water lily (*Nymphaea alba*), amphibious bistort (*Polygonum amphibium*), common water crowfoot (*Ranunculus aquatilis*) and frogbit (*Hydrocharis morsus-ranae*), shade the water and prevent it from overheating or growing too much algae.

Marginal plants, such as flowering rush (*Butomas umbellatus*), marsh marigold (*Caltha palustris*), bog bean (*Menyanthes trifoliata*), water mint (*Mentha aquatica*) and yellow flag iris (*Iris pseudacorus*) make an attractive edge to the pond, and allow creatures to climb in and out easily and safely.

Rooted pond plants can be planted in baskets filled with soil – you can buy the baskets from garden centres.

You may be able to get pond plants from someone else who has a wildlife pond, but ask them first! Remember it is illegal to dig up wild plants without the landowner's permission.

You may be able to buy some native pond plants from your local garden centre, but specialist nurseries will offer a better selection.

For pond plant suppliers, see Chapter 8.

Animals for the pond

Many animals will arrive by themselves. Watching and recording the life that discovers your pond could be a rewarding project.

If you want to kick-start the life in your pond, you could add a bucket of mud from a healthy nearby pond. This will contain all sorts of microscopic life, minibeasts, eggs and seeds.

Do not put fish into your wildlife pond, as they will eat most of the other creatures.

You should avoid moving newts, frogs or frogspawn to your pond from other sites as you may be spreading disease. Ask advice from Froglife or your local Wildlife Trust (see Chapter 8 for contact details). Great crested newts are protected and moving them requires a licence.

Maintaining your pond

A wildlife pond should not need much maintenance. However, it will need some clearing occasionally, to remove dead leaves and any overgrown vegetation.

This should be done in late summer, after most eggs of your pond creatures will have hatched and before animals begin to hibernate in the water.

Never clear the pond completely. Removing about half the vegetation and dead leaves should be adequate.

Any weeds and leaves that you clear from the pond should be left in a pile on the side for a few days, so that creatures have a chance to crawl back into the water.

For more information on wildlife ponds, see the websites and books listed in Chapter 8 (Resources).