Pooling Together
Reviving the Wetland Landscape

Education Pack

Herefordshire Amphibian and Reptile Team

National Trust

Herefordshire Wildlife Trust

The Wildlife Trusts

Welcome to Our Future
HELPING TO TURN THE WORLD AROUND

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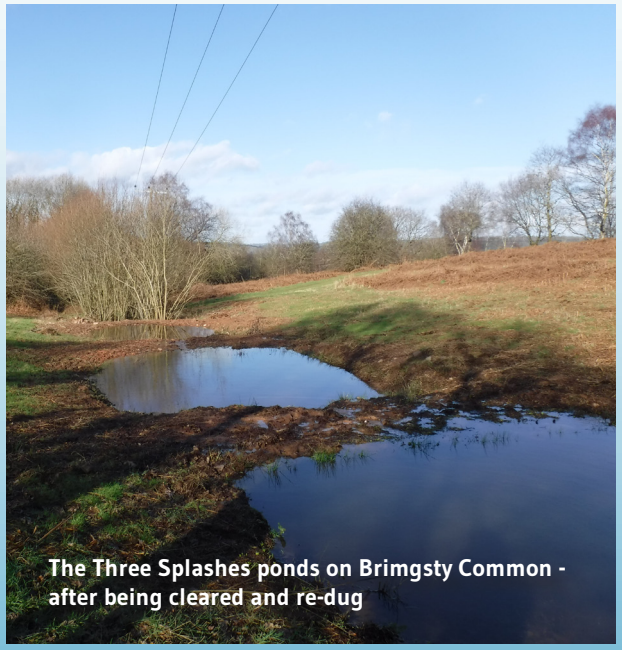
Contents

The Pooling Together Project

Ponds are an important part of our wetland landscape. Ponds have had many uses over the years. They provided a **drinking supply for livestock** (often known as drover's ponds), some were built for **fish or duck ponds**, common in the medieval period, some were **ornamental features** in gardens and some were created after **quarrying** and **mining**.

Many ponds have been lost over time through **neglect** or **natural succession**. These losses have caused certain species, such as amphibians and invertebrates, to decline in numbers. In 2015, the **Pooling Together Project** was launched. Twenty one ponds around Bromyard, Bringsty and Brockhampton were restored. The aim was to create a network of habitats that link already existing sites and already the project has been tremendously successful.

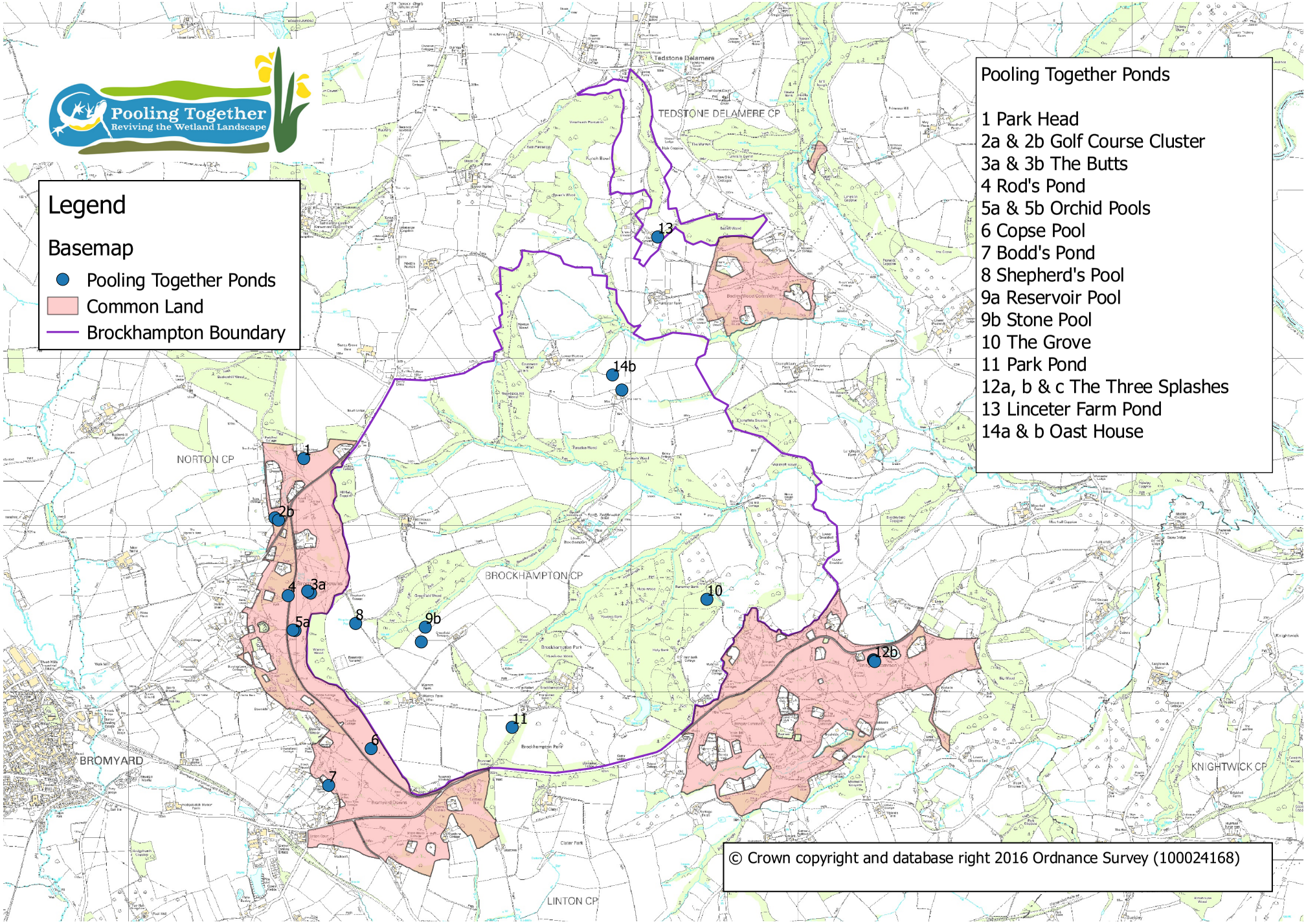
The Three Splashes ponds on Brimgsty Common - before restoration



The Three Splashes ponds on Brimgsty Common - after being cleared and re-dug

The project has been a joint venture between The Herefordshire Wildlife Trust and Herefordshire Amphibian and Reptile Team working closely with National Trust, Bromyard Downs Common Association and Bringsty Common Manorial Court.

You can find out more about the project at www.herefordshirewt.org/poolingtogether where you can also download a leaflet which takes you on a guided walk around the ponds that have been restored.


Pooling Together
Reviving the Wetland Landscape
Legend
Basemap
Pooling Together Ponds
Common Land
Brockhampton Boundary
Pooling Together Ponds
1 Park Head
2a & 2b Golf Course Cluster
3a & 3b The Butts
4 Rod's Pond
5a & 5b Orchid Pools
6 Copse Pool
7 Bodd's Pond
8 Shepherd's Pool
9a Reservoir Pool
9b Stone Pool
10 The Grove
11 Park Pond
12a, b & c The Three Splashes
13 Linceter Farm Pond
14a & b Oast House
TEDSTONE DELAMERE CP
NORTON CP
BROCKHAMPTON CP
BROMYARD
KNIGHTWICK CP
LINTON CP
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The Grove

In addition to pond restoration and habitat creation, we have created an educational shelter and dipping platform at The Grove Pool, on the National Trust's Brockhampton Estate. Local community groups, local schools and walkers are welcome to use this free facility.

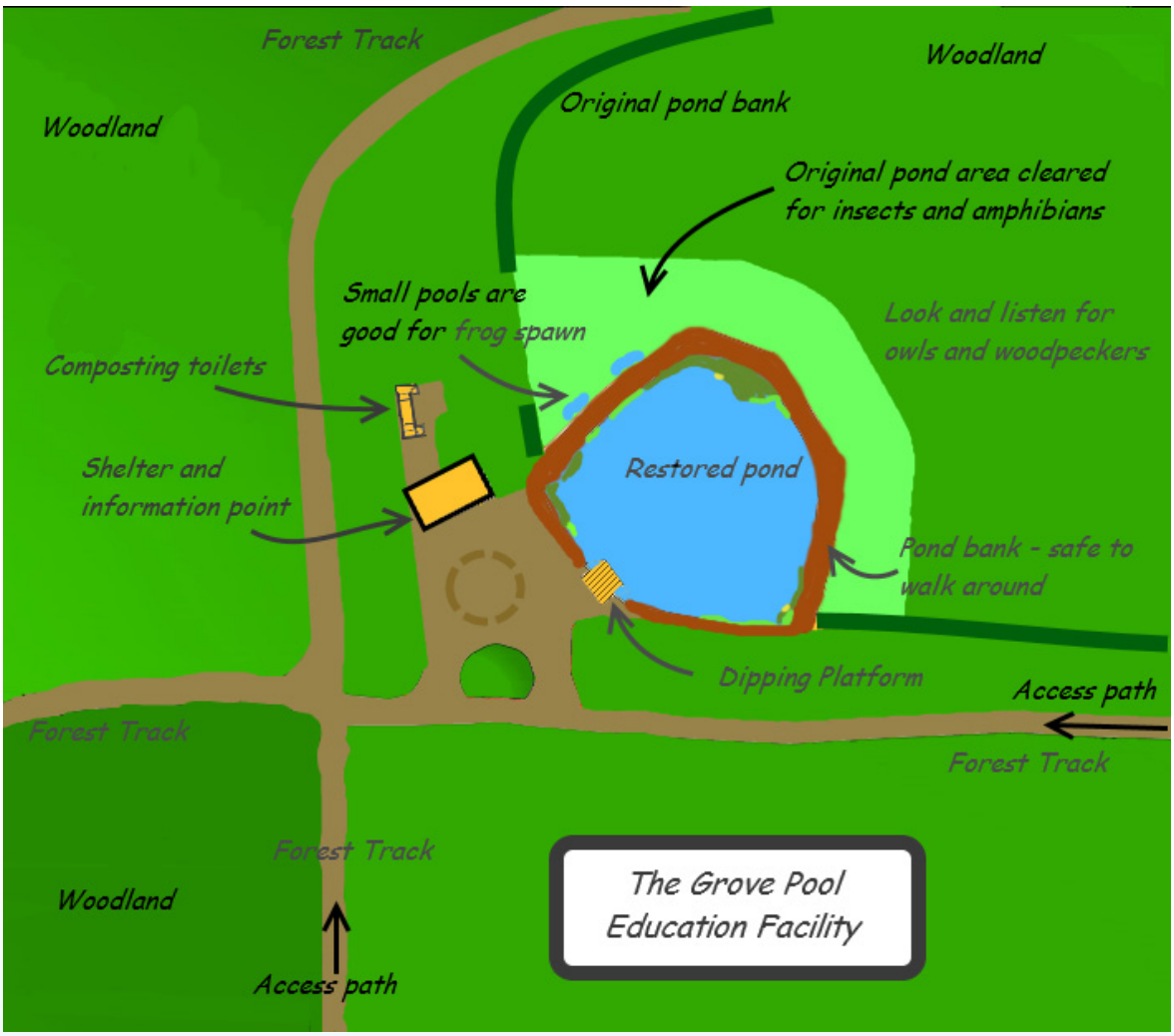
Situated in a large clearing in the deciduous woodland, The Grove Pool was once much larger than the pool you see today. If you look closely you may be able pick out the original banks of the pond, marking out its former shape. Most of the young woodland you see around has grown up after the pond was allowed to drain and the soil dried up.

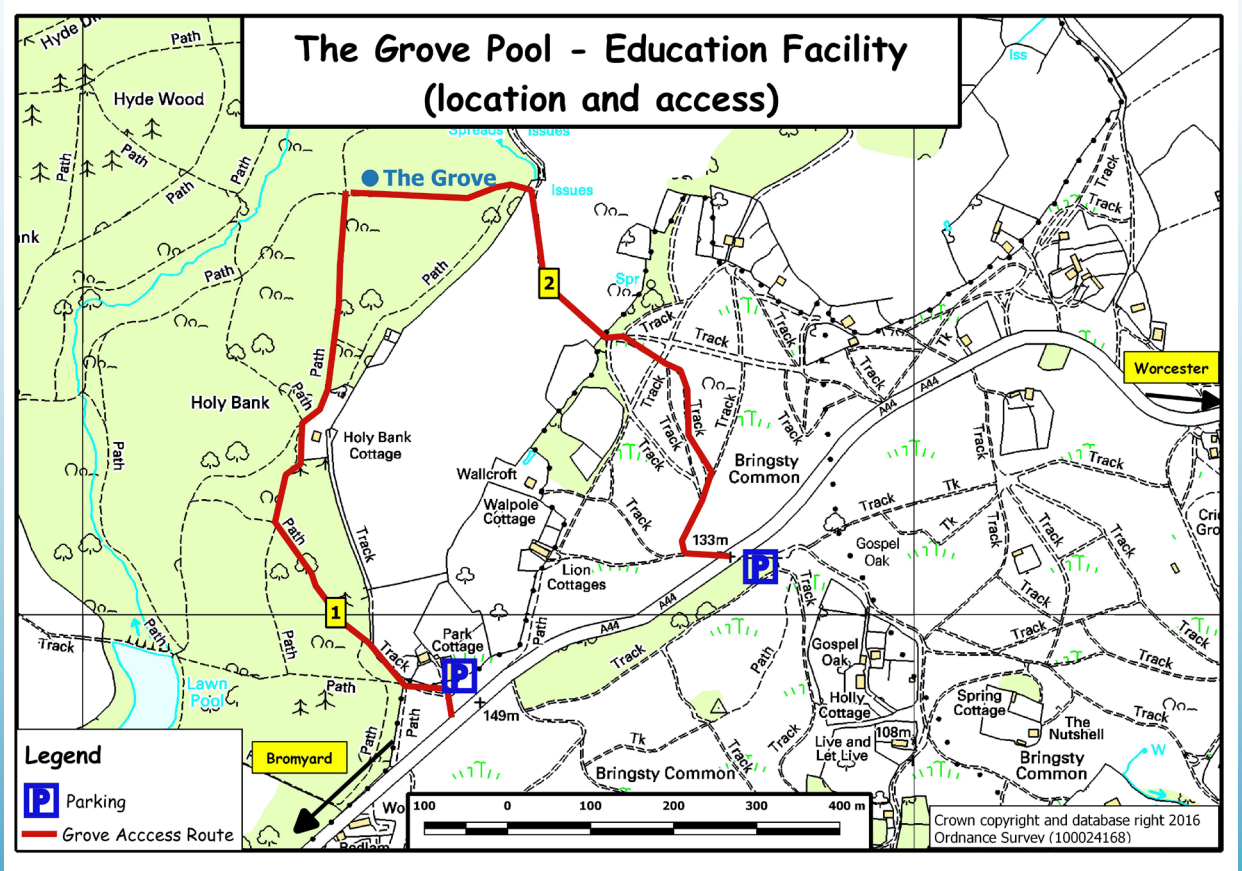
The Pooling Together Project, in cooperation with The National Trust, has helped to restore a section of the original Grove Pool by cutting back the young trees in order to let sunlight in, by rebuilding part of the banks in order to help the pond hold water, and by removing some of the silt, wood and leafy material which had filled the pond over many years.

Look and listen out for wonderful displays through the spring and summer, of amphibians, beetles, dragonflies, bats, birds, plants and flowers. You may spot some of the other species which benefit from the pond's open situation and surrounding woodland including owls, woodpeckers, small mammals, moths, butterflies and other invertebrates.

When visiting the Grove or any of the ponds on Bromyard Downs, why not make use of our **pond dipping** sets? Pond dipping equipment is available to hire (free of charge) from the National Trust Brockhampton Estate. Schools and local groups can also borrow sets of the dipping equipment from the Brockhampton Primary School, with prior arrangement through the school. This is especially useful if you are planning to visit any of the restored pools on Bromyard Downs. (The contact details of both organisations can be found in the Resources Section.)

Information about pond dipping - how to do it, equipment needed and health and safety - can be found later on in this education pack.


Forest Track
Woodland
Woodland
Original pond bank
Original pond area cleared for insects and amphibians
Small pools are good for frog spawn
Look and listen for owls and woodpeckers
Composting toilets
Shelter and information point
Restored pond
Pond bank - safe to walk around
Dipping Platform
Access path
Forest Track
Forest Track
Forest Track
Woodland
Access path
The Grove Pool Education Facility


The Grove Pool - Education Facility (location and access)
Hyde Wood
The Grove
Holy Bank
Holy Bank Cottage
Wallcroft
Walpole Cottage
Lion Cottages
Park Cottage
Lawn Pool
Bromyard
Bringsty Common
Gospel Oak
Holly Cottage
Live and Let Live
Spring Cottage
The Nutshell
Worcester
133m
149m
108m
Legend
Parking
Grove Acccess Route
100 0 100 200 300 400 m
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Ponds and the National Curriculum

Ponds can be used in many ways to support learning within the classroom. They can cover many aspects of Science from EYFS through to Key Stage 3

- Plants
- Seasonal Changes
- Living things and their Habitat
- Working Scientifically
- Evolution and Inheritance
- Photosynthesis
- Interactions and Interdependencies (relationships in an ecosystem)

Ponds can also link to other curriculum areas:

- **History:** Types of ponds and their uses over time. Local history: how many ponds have been lost and the effect this has.
- **ICT:** Research pond creatures and their adaptations. Present data from pond dipping sessions
- **DT:** Design your own pond. What features are best for different wildlife? Design a pond superhero.
- **English/literacy:** Write up on pond visits. A day in the life of a pond animal or plant. Pond stories.
- **Maths**: Measure length of creatures found, does size vary at different times of year? Create tables and graphs from data. Count and record ponds in local area.
- **Art**: Animal skin patterns, footprints, leaf shapes, natural art pictures, mud sculptures.
- **Geography:** Water cycle. Eutrophication and effects on pond life. Mapping ponds and the local area.

Health & Safety

Don't let worries about excited children and water put you off giving them the real deal pond dipping experience! Follow the 'specific measures and precautions' section, combined with your school guidelines. This is an example risk assessment only - please revise or use your own.

In advance:

Visit the site to ensure that there is a safe area to dip from i.e. water with existing pond dipping platforms or where you are sure the water is shallow enough at edges to be manageable. At the site go through Specific measures and precautions' section of risk assessment. Add any additional factors. On the day, check the area again to make sure there have been no changes, or new hazards.

RISK ASSESSMENT **EXAMPLE**

Activity: Pond Dipping			
Location: The Grove, National Trust Brockhampton Estate			
Description of hazard: • Slipping into Pond • Water borne diseases: Weils, tetanus leptospirosis • Deep or fast flowing water • Exposure to harmful substances • Weather conditions (e.g. sun/ damp/ cold)	**Low risk**	**Medium Risk**	**High Risk**
Persons at Risk: Adults supervising, Children.			
When at risk? Whilst Pond dipping. Children could go back to pond alone after session.			
Specific precautions to be taken: • Ensure children have adequate clothing. • Maintain high level of supervision (above normal). • Make sure everyone washes hands after the activity . • Talk about risks involved with the children - get them to think of what might • happen and how to avoid it. Create a pond code of conduct together. • Tread carefully on banks, gravel areas or slippy rocks. Test prior to event. • Pond dipping should ideally be carried out by children kneeling on both • knees or lying flat on their stomachs. • Do not drink water from pond or wash hands in it. • Cover open cuts and grazes on hands with waterproof plaster or pvc gloves. • Plan rescue and first aid in advance • Do not use any site where sewage or other pollutants are present.			
Level of risk after precautions taken: Low / Medium / High **Is this level of risk acceptable?** Yes / No			
Signed & dated:			

Pond Background Information:

Water is all around us and is essential for life. Although 75% of the earth is covered in water, only 3% of this is freshwater.

Ponds are small bodies of **freshwater** that are extremely important as wildlife habitats. A large range of plants and animals live in and around them. Ponds can become **polluted** by nutrient runoff, chemicals and litter.

One big problem for ponds is nutrient enrichment (called **eutrophication**). This is when too many nutrients enter the water. This makes the algae (tiny water plants) grow into large numbers and this spreads through the pond, starving the animals of oxygen. Eutrophication can happen when fertilisers from surrounding fields are washed from the soil and carried into the pond as runoff water.

The quality of the water can be measured by looking at the different creatures that live in the pond. Pond invertebrates are excellent **bio-indicators**. Some of these are very sensitive to water quality (e.g. dragonfly and damselfly larvae) while other invertebrates are much more tolerant (snails, rat-tail maggot). Mayfly larvae are also a great indicator of good quality water. Keep a look out for other indicator species.

What is a pond?

"A pond can be defined as a body of water (normally fresh water, but occasionally brackish), which can vary in size between 1 square meter and 2 hectares (this is the equivalent in size to about 2.5 football pitches) and which holds water for four months of the year or more"

Pond conservation

Ponds as habitats

Ponds are not just pools of muddy water - they are whole worlds to explore!

Habitat = a place where a living thing lives for part, or all, of its life

Bats fly over ponds at dusk to feed on insects

Sky high

Herons stop by to feed and summer **swallows** swoop over for tasty bugs and to skim the surface for a drink

Look up! Always look in the air around the pond for **dragonflies** and **damselflies**. The nymphs are an indicator of a clean water habitat.

Plants provide places for breeding, hunting, protection, egg-laying and somewhere for nymphs to climb out to shed skin

Frogs and **newts** may spend winter on land but need a pond to mate and lay eggs in the spring

Pond skaters have hairs on their feet which trap air and allow them to stand and move on the water's surface. Thay are so light, the surface tension of the water holds them up.

Whirligig beetles whirl on the surface of the water. Half of each eye can see above the water and half below to keep an eye on both predators and prey!

Surface level

Ramshorn snails have a simple lung and float to the surface to fill this with air but they eat algae and rotting debris from the bottom of the pond!

Water flea / daphnia move in jerks through open water - like a flea hopping!

Camouflage: Some creatures disguise themselves so they are less likely to be seen and eaten by their predators (e.g. caddisfly). Some animals' skin colour or texture blends in with their surroundings (e.g. frog).

There are more species of water beetle living in British ponds than there are bird species living in the countryside!

The **great diving beetle** is a voracious predator often found in weedy ponds

Swimming free

Mayfly nymphs are adapted for water: they have gills on the side of their bodies. Water flows over the gills and the oxygen from the water goes into their blood

Adaptation: Creatures have different features and feeding habits deoending on where they spend most of their time in the pond

Dragonfly nymphs indicate a clean pond

The number and type of different species in a pond can be dependant on water quality. Often, the more polluted the pond, the fewer the number of spceies

Caddisfly larvae camoflage cases from what is in the pond: stones, sticks and leaves

Murky depths

Pond Dipping

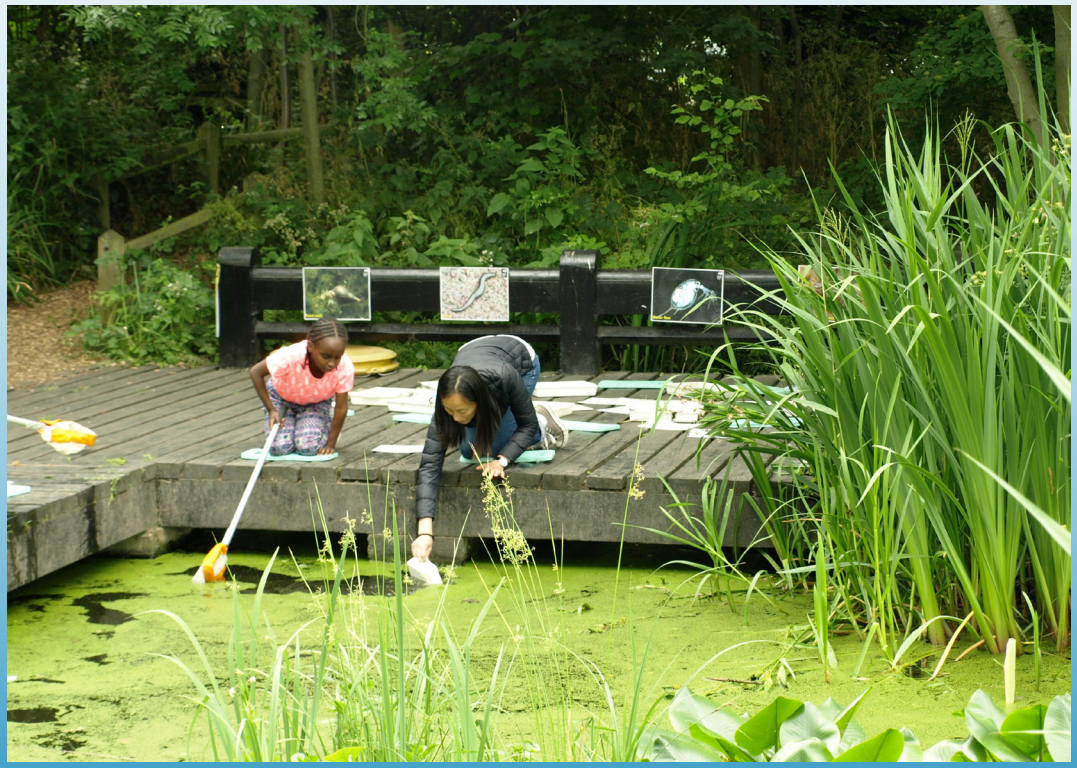
Equipment:

- **Net**
- **Viewing trays** (white plastic are the best)
- **Magnifying glass**
- **Teaspoons** (to help you pick up creatures carefully)
- **Appropriate outdoor clothing**
- **Identification sheet** (see resources)

Activity:

Before you start make sure you have visited the site and completed a risk assessment form (a template is included in this pack).

Divide the group into smaller groups of two or three and share the equipment out. Before the students are let free to pond dip they need to be shown how to do this safely. Demonstrate the step-by-step instructions below. After demonstration, ensure groups are spread evenly around the pond; if space is limited, one person from each group can be next to the pond while the others in the group may need to be slightly further away.



How to pond dip:

1) Kneel down next to the pond.
2) Look for animals on the surface before you disturb the water or start dipping.
3) Fill your viewing tray half full with pond water.
4) Using the pond net, sweep around vigorously, a figure of 8 pattern is best. For best results dip at the pond surface, mid-water and among marginal vegetation. Try not to turn the net inside out while dipping as creatures could escape.
5) After each sweep, empty the contents of your net in the viewing tray. Remove any large plants from your tray, put these back in the pond – make sure you check for creatures hiding on the plants before you put them back.
6) Try to prevent clogging the net with mud by sweeping mainly in the submerged plants or the plants that are emerging from the surface. If you get too much mud in the water, try swishing the net in the water before emptying it.
7) If the tray gets too muddy it will be difficult to see any creatures and you may need to start again.
8) Have a look at the creatures you have found. Use ID sheets (see resources) to help you identify them.
9) When you have finished, carefully put the creatures back in the pond.
10) At the end of the activity, swill out and clean the trays using clean water from the pond. Also carefully check the net for any creatures that may still be there and remove any vegetation. It is a good idea to wash the nets and trays under tap water (where available) prior to returning them.

Useful website and more detailed information on how to pond dip:
http://freshwaterhabitats.org.uk/get-involved-2/big-pond-dip/dip/

Pond Life Identification

Lesser Water Boatman

h

5-40mm

Greater Water Boatman

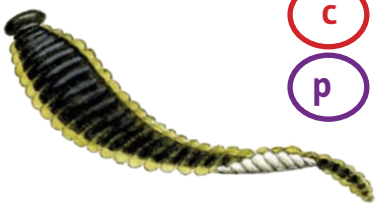
c

5-40mm

Water Scorpion

c

15-25mm



c

p

up to 50mm

Diving beetle

c

25-40mm

Diving beetle larva

c

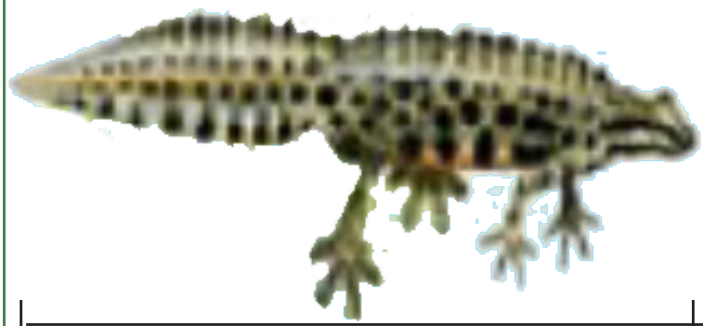
25-60mm

Tadpole

h

up to 50mm

Newt



c

90-150mm

Flatworm

c

5-15mm

Water mite

c

8-15mm

KEY:

c: carnivore
h: herbivore
d: detritivore
p: parasite

Size:

Pond Life Identification

Pea mussel

h

2-7mm

Pond snail

h

20-40mm

Ramshorn snail

h

5-30mm

Water fleas

Much bigger than actual size!

h

0.5-2mm

Freshwater shrimp

d

15-30mm

Freshwater hoglouse

d

5-15mm

Mosquito larve

h

2-10mm

Midge larve

h

up to 15mm

Phantom midge larva

c

5-25mm

Dragonfly nymph

c

up to 60mm

Damselfly nymph

c

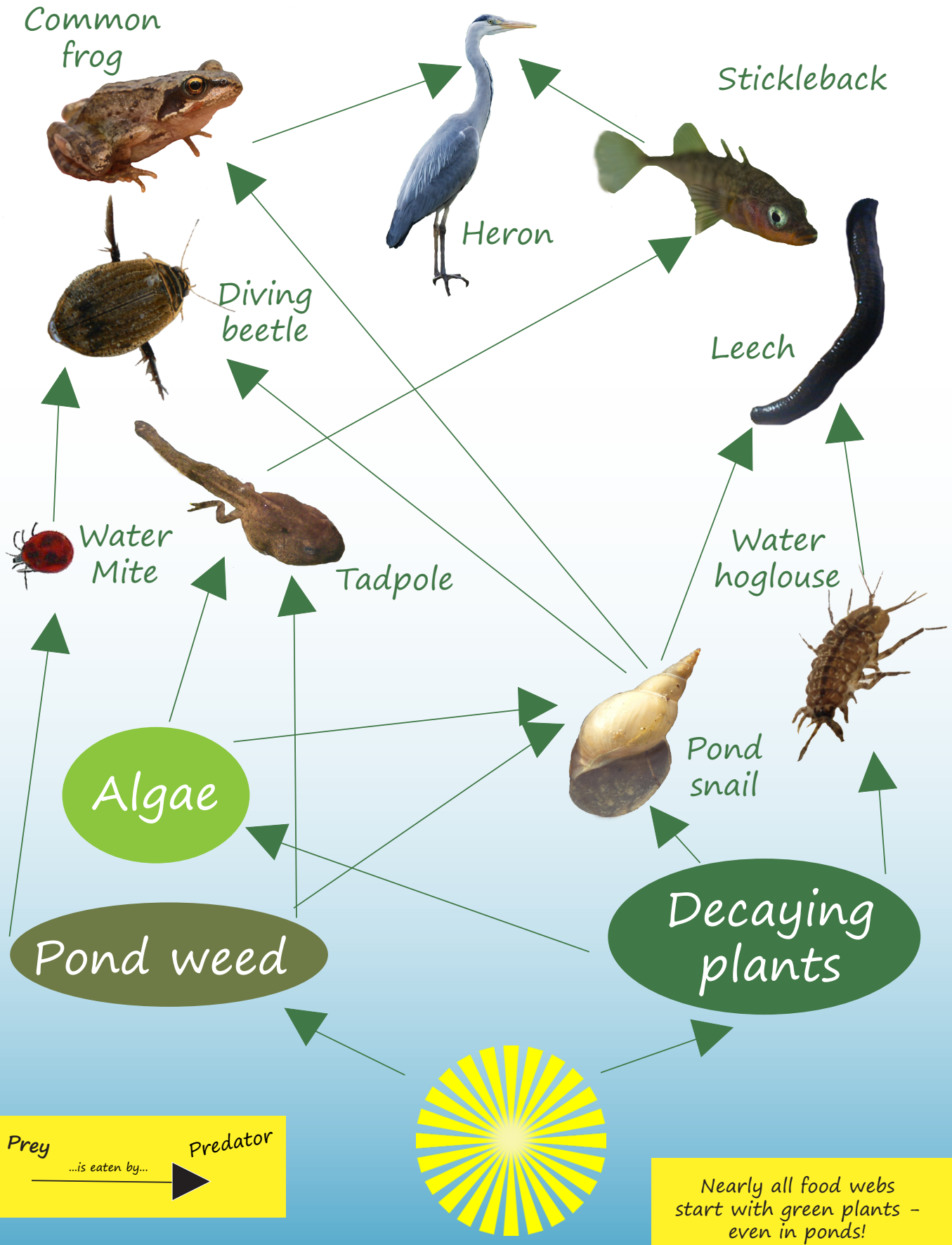
15-30mm

Mayfly nymph

h

up to 20mm

Food web



Prey ...is eaten by... Predator

Nearly all food webs start with green plants – even in ponds!

Images R.Burkmare/ P. King/ S. McDonald/ M.Mere/ J. Perks

Food chains

All animals and plants need food to grow and move

Animals that eat plants are called **herbivores**
Animals that eat other animals are called **carnivores**
Animals that eat both plants and animals are called **omnivores**
Animals that eat dead plants and animals are called **detritivores**

This is a simplified feeding or tropic level chart of the animals found in a pond:

Invertebrate name	Feeding or trophic level
Pond snail	Herbivore/ detritivore
Phantom midge larva	Carnivore
Rat-tailed maggot	Herbivore
Leech	Carnivore
Flatworm	Carnivore
Mayfly nymph	Herbivore
Dragonfly nymph	Carnivore
Diving beetlr	Carnivore
Water mite	Carnivore
Freshwater hoglouse	Detritivore
Freshwater shrimp	Detritivore
Water flea	Herbivore
Pea mussel	Herbivore
Greater water boatman	Carnivore
Lesser water boatman	Herbivore
Mosquito larva	Herbivore
Damselfly nymph	Carnivore
Water scorpion	Carnivore

3

Vertebrates

Frog	Carnivore
Newt	Carnivore
Tadpole	Herbivore

Information about Pond Wildlife

Invertebrates – animals without backbones

A healthy British pond can be home to a vast diversity of invertebrates over 115 species, some of which only complete part of their lifecycle in the pond whilst others need an aquatic environment for all of their lifecycle.

Most species are insects but there are also **crustaceans**, **annelids** (worms), **snails** and **arachnids** (spiders and their relatives).

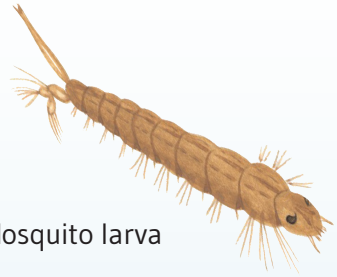
The diversity of species is dependent on water quality as a general rule the more polluted a watercourse is the fewer the number of species.

Insect Larvae and Nymphs

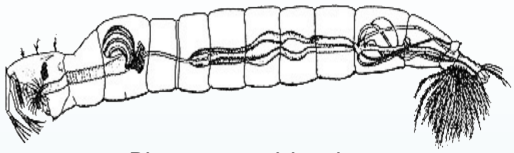
Many flying insects lay their eggs in the pond and their young called **nymphs** or **larvae** live under water before changing into adults.

Larvae are maggot-like insect young, sometimes with legs.

Midge larva



Mosquito larva



Phantom midge larva

Nymphs look more like adult insects but without wings, usually with jointed legs

A number of different **mayfly** species lay their eggs in ponds, some take only two months to mature as adults whilst other species take two years. The presence of mayfly in a pond shows that it has high water quality. Mayfly are very short lived as adults although one species can live for a fortnight.

Mayfly nymph

Damselfly nymphs live underwater for about six months before turning into an adult. The main species recorded is the common blue damselfly.

Damselfly nymph

Dragonfly nymphs can live underwater for up to two years before turning into adults, dependent on the species. The main species seen flying as adults are the emperor and ruddy darter

Dragonfly nymph

Both damselfly and dragonfly nymphs are voracious predators with larger nymphs preying on tadpoles.

Pond invertebrates

Common invertebrates who live all their lives in ponds are:

Crustaceans (animals that are related to crabs and shrimps)

Daphnia or water fleas – tiny free swimming crustaceans that mainly feed on algae. They are termed water fleas because they swim in a jerky motion. They are the most common animal in ponds and vary in colour from orange to almost transparent.

Cyclops – similar in size to daphnia. Termed Cyclops as they only have one eye like the giants in Greek mythology.

Water or **hoglouse** – related to woodlouse, these live at the bottom of ponds feeding on dead organic matter. Water louse carry their eggs and small young on their tummies.

Freshwater shrimp – smaller freshwater species of marine shrimps. They belong to the decapods as they have ten legs.

Molluscs – gastropods

Pond snails – the two types that are found in ponds are the ramshorn and the great pond snail. Both are mainly plant eaters but will eat dead animal and plant matter.

Insects (six legs and three body parts)

Greater water boatman – fast moving predators who swim upside down catching prey with their jaws.

Lesser water boatman – not closely related to the greater water boatman. These creatures swim the right way up and eat algae.

Greater Diving beetle – a large carnivore that breathes using a bubble of air on its body.

Water scorpion – not related to scorpions. It has large front legs for catching its prey and its long tail acts as a snorkel

Pond skater – lives on the surface of ponds and hunts for struggling insects by vibration. Their feet have water repellent hairs that hold tiny air bubbles to allow them to walk on water.

Other

Leech – related to worms and are parasites. They feed on the body fluids of other animals attaching themselves by a sucker. Leeches can swim but most often move along the bottom of the pond.

Vertebrates (animals with a backbone)

Amphibians

Ponds are home to three species of amphibian, the common frog, the common toad and the common newt. An amphibian is a moist skinned animal which has a gilled aquatic larva that transforms into an adult with air breathing lungs.

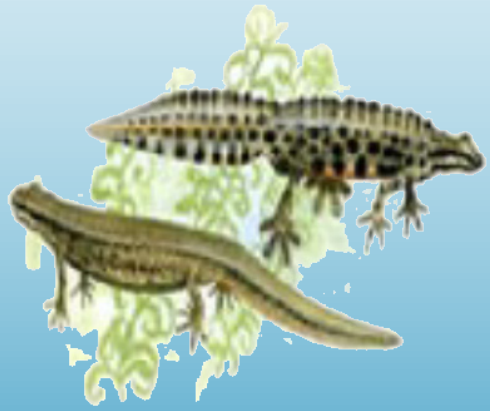
Common toad – toads tend to be larger than frogs and have more warty skins and are poorer jumpers. They can vary in colour from dark brown to orange. They come to ponds in spring to spawn and toad spawn is laid in long strings. Toad tadpoles are darker and smaller than frog tadpoles They also tend to swim in large shoals. Once changed from tadpoles to toadlets they hide under rocks, logs and in deep vegetation.

Common Frog – frogs have smooth skin and are excellent leapers. Frog spawn is laid in clumps in early spring and tadpoles are present in ponds until about May. After metamorphosis the young froglets leave the pond for long grass and woodland.

Both frogs and toads produce a lot of spawn or eggs, over 5000 eggs maybe in a string of toadspawn. Out of this number only a handful will reach maturity due to heavy predation from other creatures including water beetles, dragonfly nymphs and birds.

Common newt – newts return to ponds in late spring to breed. Female newts are brown in colour and the males are brighter in colour with spots.

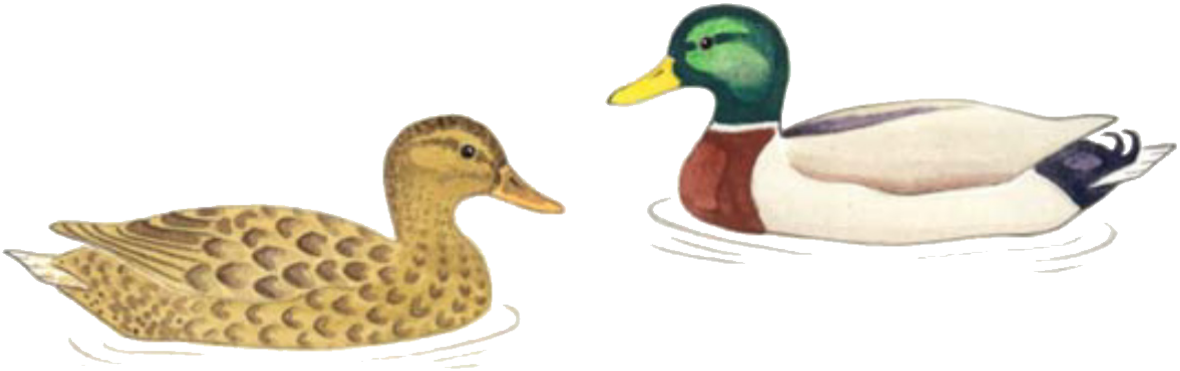
Newts lay their eggs individually wrapped in the leaves of submerged plants and newt tadpoles are called efts. They are light brown in colour and have gills.



Birds

Moorhen
Moorhens can have up to three broods and feed on pond vegetation and invertebrates.

Mallard
Ducks can lay up to 15 eggs so large broods of ducklings are not uncommon; sadly most do not survive.



Grey heron
Herons will come to ponds to feed on small amphibians

Life cycles: from frog to frog

At the end of winter, adult frogs go to a pond to mate and lay eggs - frogspawn

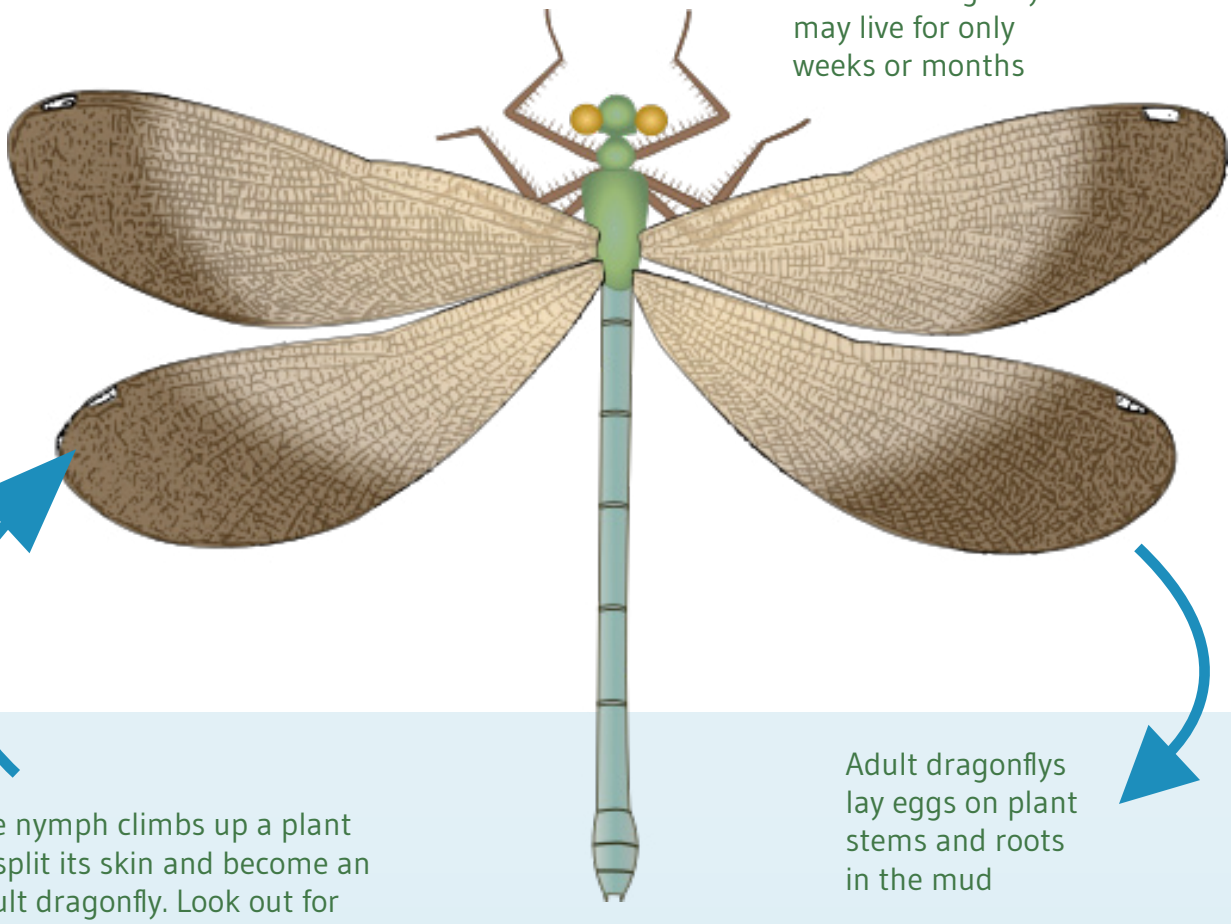
Tadpoles hatch out after 2-4 weeks. they feed on algae and water fleas.

After 16 weeks, the tadpoles start to grow back legs folloed by front legs.

Over the summer, they absorb their tails and leave the water as tiny froglets

Life cycles: dragonfly

An adult dragonfly may live for only weeks or months



Adult dragonflys lay eggs on plant stems and roots in the mud

The eggs hatch and most of the dragonfly's life is now spent as a larval nymph

The nymph climbs up a plant to split its skin and become an adult dragonfly. Look out for the final monster-like skin it leaves behind - called exuvia

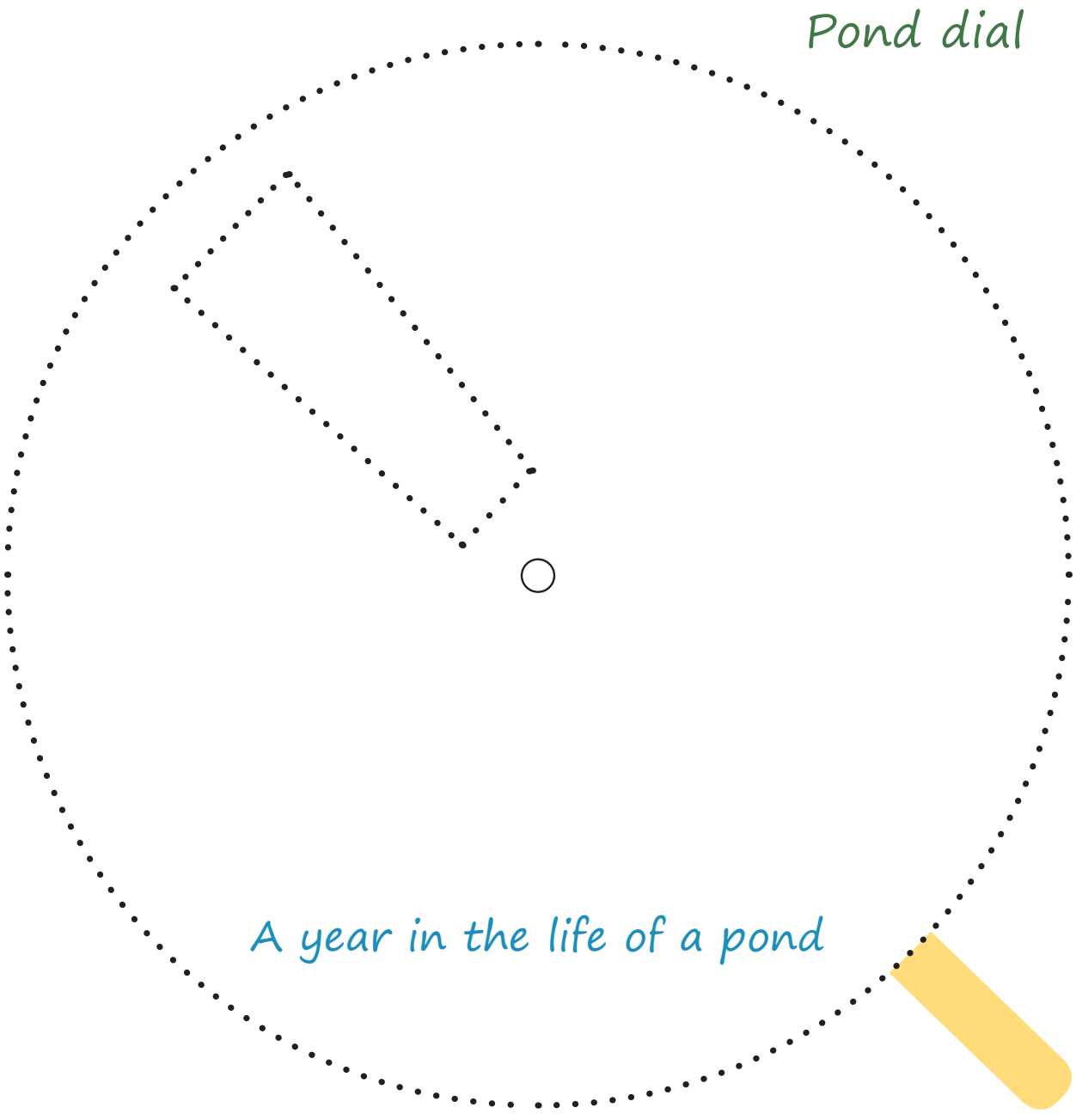
Activity: the Pond year

Instructions:

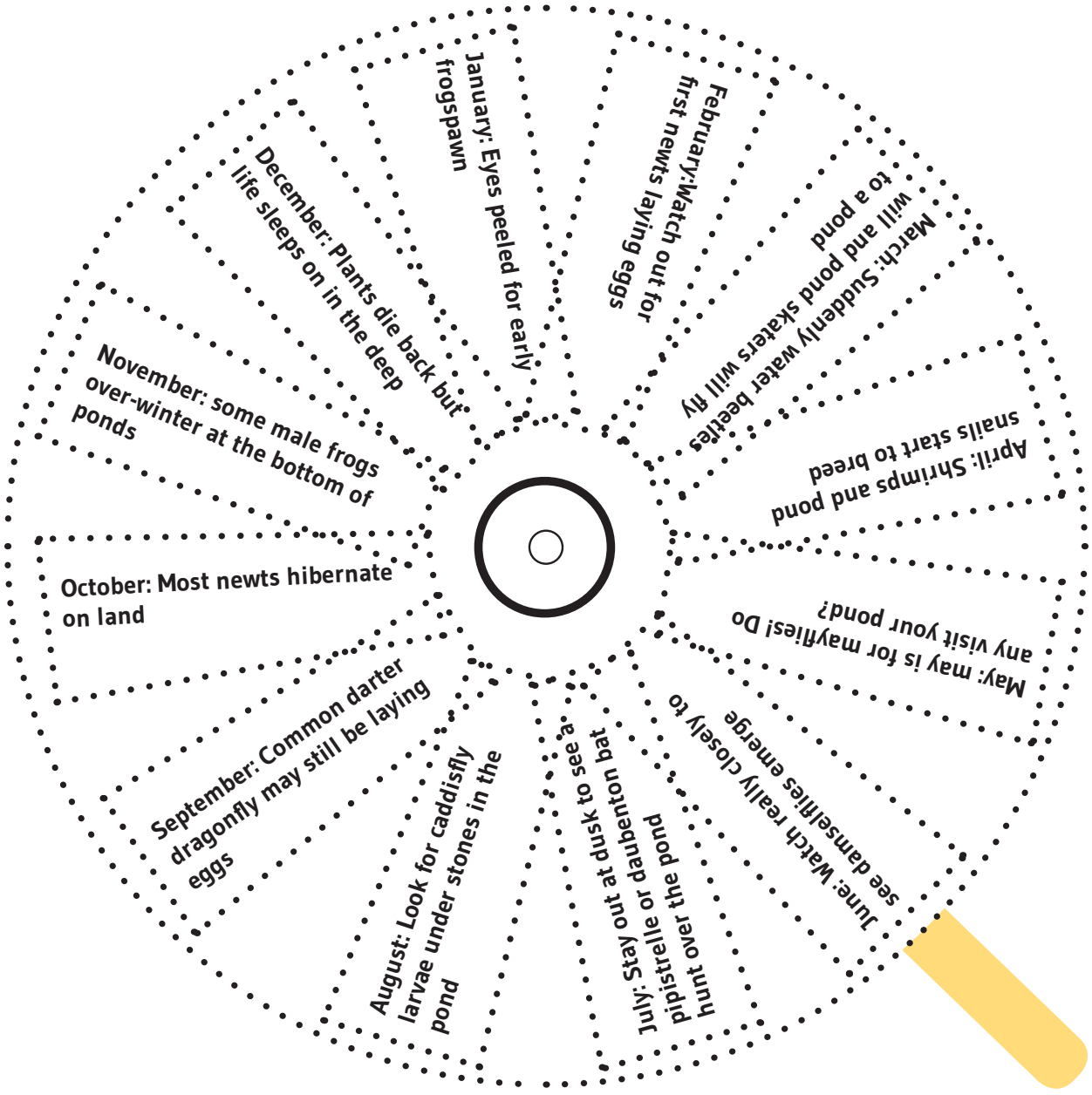
- Copy this page and the page oppostite and stick each to a piece of thin card
- Cut out both circles
- Cut out the dotted slit on the pond dial
- Decorate the pond dial to look like a pond
- Stick a lolly stick to the back of each dial to make a handle to turn
- Pierce a hole in the centre of both dials.
- Lay the pond dial over the calender dial and push a paper fastener through both to secure.
- Turn the dial to see what awaits you in your pond each month!

You will need:

- Thin card
- Scissors
- Glue or double sided tape
- Colouring pencils
- lolly sticks
- paper fastener



Calendar dial



Pond Play: predators & prey

Parachute pond:

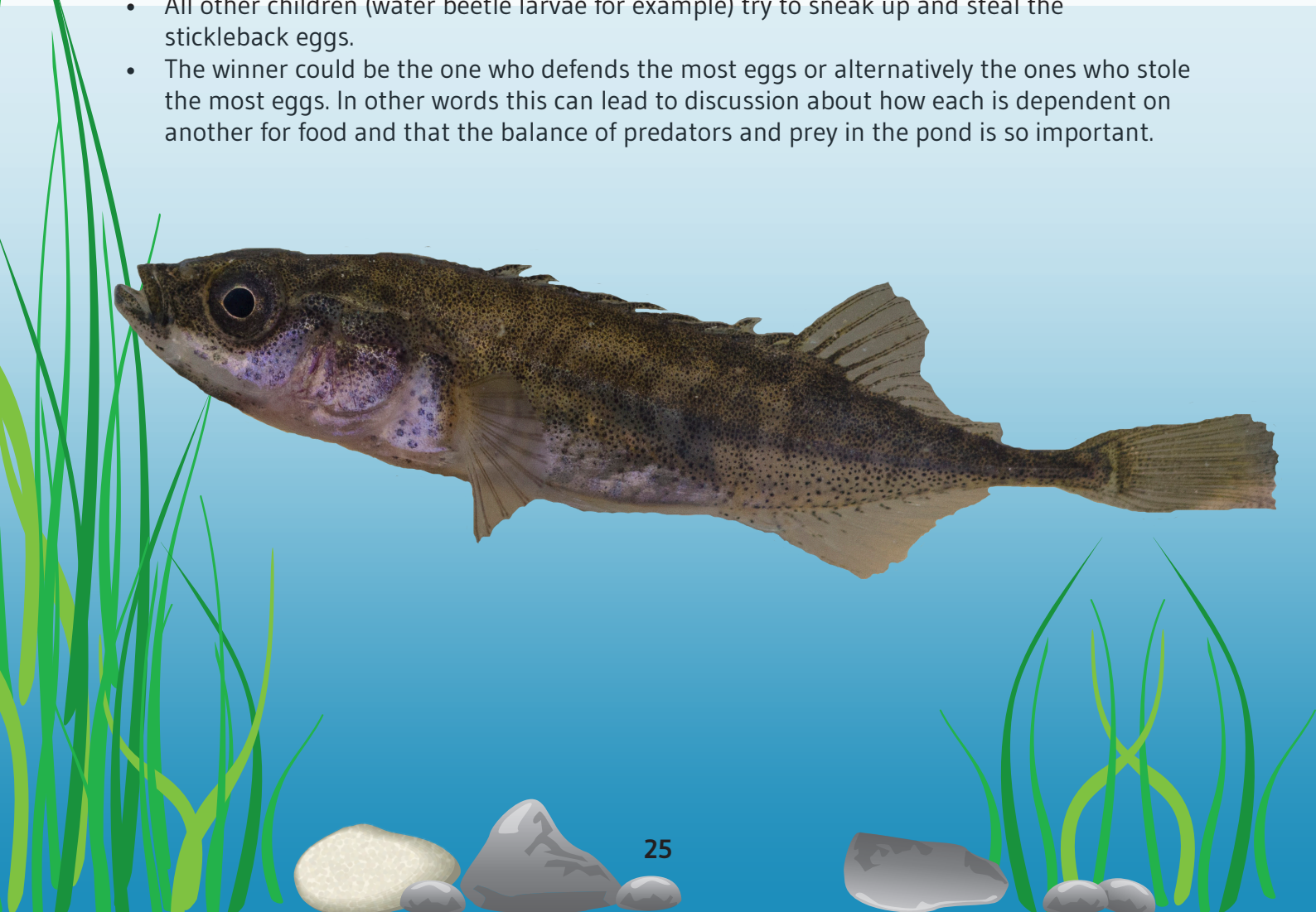
- Parachute held gently by group sitting in a circle around its edge.
- 3 or 4 children go under the parachute as the prey; tadpoles.
- 1 child goes on top of the parachute (shoeless) as dragonfly larvae and diving beetle larvae.
- The predatory larva on top has to catch the prey moving around underneath. Switch over to give everyone a go.

Use the Food chain and habitat pages of this pack to help discuss 'who eats who' - and why - before or after these games.

Sticklebacks:

A breeding time, the male stickleback's belly turns red and he does a zig zag courtship dance. He creates a nest which the female lays eggs in then spends time protecting the nest and young fish from thieves - even teaching them self defence by chasing them!

- Set up two nest areas in different parts of the room or playground.
- Place tennis or golf balls in nest as eggs.
- Have one 'male stickleback' child at each nest with a red band/t-shirt on to show the red belly of the breeding season!
- All other children (water beetle larvae for example) try to sneak up and steal the stickleback eggs.
- The winner could be the one who defends the most eggs or alternatively the ones who stole the most eggs. In other words this can lead to discussion about how each is dependent on another for food and that the balance of predators and prey in the pond is so important.



Pond Play: frog life cycle game

You will need:

- Rope or chalk to define the pond area
- 100 cards in 2 different colours (will represent food)
- Predator headbands saying "newt" or "heron" etc
- A few towels or sheets (to represent pollution).
- Suitable for both indoor and outdoor play.

How to play

1. Define pond area.
2. Sit the group around the "pond". Describe different areas where plants and animals might live. Identify an area outside the pond that is safe haven for adult frogs
3. Talk through the frog life cycle, describing each stage:
4. Frogspawn - Tadpole - back legs then front legs develop - tail absorbed - the little frog is ready to hopout of the pond.
5. The group act each stage out with actions and noises. Go mad!
6. Become frogspawn. Get the children to scrunch up into small balls in clumps around the edge of the pond.
7. Eat the jelly. Munching noises!
8. Grow tails. Swim around the pond and explore.
9. Grow back legs. More movement.
10. Grow front legs. Practise all those swimming strokes!
11. Tail absorbed into body. Hop out of the pond. Find a froglet voice!
12. Hop to that safe haven.

Play the game with the complicating factors (below). How many adult frogs make it to the safe area now?

Complicating factors:

1) **Food Shortage**. Use the coloured cards as food tokens. At each stage of development, each frog must collect 2 cards of each colour from someone oraround the room in order to survive and develop to the next stage.
2) **Predation**. Send in some children as newts and herons to "eat" the developing frogs in the manner of a game of tag.
3) **Chemicals** have leaked into the pond (coloured sheets you throw into parts of roped area) Can the tadpoles move quick enough to safety? Is there enough room away from the spill for them to grow into froglets?

Pond life superheroes!

The makers of many films have got their ideas from weird and wonderful pondlife: Dr Who; Monsters vs. Aliens; Batman. Re-think these mini-beasts and roaming reptiles into superheroes.

Pond Power Cards

This card game is based on Top Trumps - each creature has scores out of 10 in each of the catagories. Any number of people can play.

Before you start:

- Photocopy the three pages of cards (the three pages following this one in the booklet) as many times as you like
- Stick each page to sheet of card for extra strength
- Cut out each individual Pond Power card

Before you play briefly discuss what the categories mean; the words themselves (e.g. 'agility') and what they mean for survival in the pond. Refer to fact sheets on habitats and superheros.

How to play

1. Shuffle and deal all the cards face down.
2. Each player holds their cards with only the top card facing up.
3. The first player turns their top card and chooses a category. They say the category and the score out loud. Eg if their creature has an agility of 9 they should say "Agility 9".
4. The other players read out what their animal scores in that category.
5. The player with the highest value wins all the cards from that 'round and places them at the bottom of their pile.
6. It is then their turn again to chose a score from the next card.
7. In case of a draw where 2 or more cards have the same chose score, place all the cards in the middle. The next time there is winner of a round they take these middle cards too.
8. The winner of the game holds all the cards but you can also put time on the game and see who has the most when time is up. Or stop play when someone runs out of pond life for their ecosystem!

After pond dipping why not add to these cards? Make your own with other creatures you've seen.

Pond Power

three spined stickleback

Size: 4
Hunter rating: 8
Agility: 10
Camouflage: 8

Pond Power

swan mussel

Size: 6
Hunter rating: 2
Agility: 4
Camouflage: 10

Pond Power

water boatman

Size: 3
Hunter rating: 9
Agility: 9
Camouflage: 9

Pond Power

pond skater

Size: 3
Hunter rating: 6
Agility: 8
Camouflage: 5

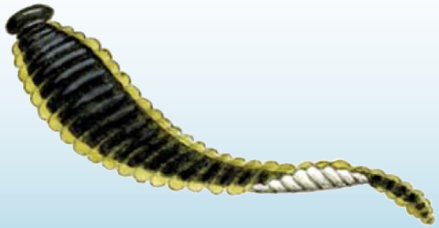
Pond Power

water mite

Size: 1
Hunter rating: 6
Agility: 4
Camouflage: 4

Pond Power

leech



Size: 3
Hunter rating: 7
Agility: 7
Camouflage: 8

Pond Power

grass snake

Size: 10
Hunter rating: 9
Agility: 8
Camouflage: 10

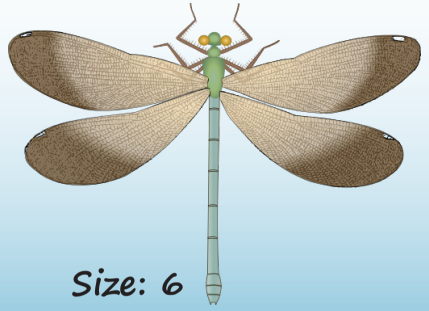
Pond Power

heron

Size: 10
Hunter rating: 9
Agility: 6
Camouflage: 5

Pond Power

dragonfly



Size: 6
Hunter rating: 10
Agility: 10
Camouflage: 4

Pond Power

frog

Size: 7
Hunter rating: 5
Agility: 7
Camouflage: 8

Pond Power

great crested newt

Size: 9
Hunter rating: 5
Agility: 6
Camouflage: 7

Pond Power

great pond snail

Size: 4
Hunter rating: 2
Agility: 3
Camouflage: 7

Pond Power

great diving beetle

Size: 4
Hunter rating: 10
Agility: 9
Camouflage: 5

Pond Power

caddisfly larvae

Size: 3
Hunter rating: 3
Agility: 4
Camouflage: 10

Pond Power

water scorpion

Size: 4
Hunter rating: 9
Agility: 7
Camouflage: 9

Pond Power

water flea

Size: 1
Hunter rating: 3
Agility: 3
Camouflage: 10

Pond Power

water spider

Size: 3
Hunter rating: 7
Agility: 6
Camouflage: 7

Pond Power

mayfly nymph

Size: 3
Hunter rating: 5
Agility: 6
Camouflage: 6

Pond Power

(frog) tadpole

Size: 5
Hunter rating: 6
Agility: 7
Camouflage: 5

Pond Power

toad

Size: 10
Hunter rating: 5
Agility: 7
Camouflage: 8

Pond Power

whirligig beetle

Size: 2
Hunter rating: 3
Agility: 3
Camouflage: 3

Pond Power

dragonfly nymph

Size: 4
Hunter rating: 8
Agility: 6
Camouflage: 6

Pond Power

water hoglouse

Size: 2
Hunter rating: 2
Agility: 3
Camouflage: 7

Pond Power

china mark moth

Size: 6
Hunter rating: 2
Agility: 6
Camouflage: 7

Resources and useful links:

- **Herefordshire Wildlife Trust** (www.herefordshirewt.org)
- **Herefordshire Amphibian and Reptile Team** (www.herefordhart.org)
- **Freshwater Habitats Trust** (www.freshwaterhabitats.org.uk)
- **Opal, Explore Nature** (www.opalexplorenature.org)
- **Field Studies Council** (www.field-studies-council.org)
- **Froglife** (www.froglife.org)
- **Amphibian and Reptile Conservation** (www.arc-trust.org)
- **Wildcare:** supplier of pond dipping equipment (www.wildcareshop.com)

- **Pond Dipping Kits** are available to loan, free of charge, from:

  Brockhampton Primary School.
  Contact: 01885 483238

  National Trust Brockhampton Estate
  Contact: Visitor Centre 01885 482077 or the Ranger
  01885 485035 or email: Brockhampton@nationaltrust.org.uk

  Please contact in advance to check availability