

The circle of life

Life cycle activities for children aged 7–11 years

WWT has a well-established and well-loved education programme that we run across the UK at our ten wetland sites. We've designed these short activities based on one of our school activities. We've made it to connect you and your family to the natural world and help you to work with your children to feel great about nature and understand some of the things that WWT love and care about.

Why wetlands?

WWT works across the UK to save, conserve and build wetlands for wildlife and people. Wetlands are one of the most important habitats on earth – storing huge amounts of CO₂, providing a natural way of stopping flooding and serving as a home for huge numbers of different creatures.

This activity will help you and your children to discover the incredible life cycles of some wonderful wetland animals as they develop from baby to adult.

These activities link to the National Curricula for science in England, Northern Ireland, Scotland and Wales.

Stuff you need:

- Life cycles visuals (see final pages of this document)
- Scissors
- Glue

Note: Where you see a  this indicates a question to ask your child

Indoor activities

(40 minutes)

What is a life cycle?

A life cycle shows how a living thing is born, grows into an adult and then has babies of its own. All living things have a life cycle. However, whilst they have similarities, they can also be quite different. This activity compares the life cycle of an otter, a goose, a frog and a dragonfly.

- Look at each of the life cycle visuals.

 Which group of creatures does each animal belong to? (mammal, bird, amphibian, reptile, fish, insect, arachnid, mollusc, crustacean, worm)

Otters are mammals. Geese are birds. Frogs are amphibians. Dragonflies are insects.

An otter life cycle

- Look at the otter life cycle together with your child. This is a very simple life cycle. The female otter gives birth to live babies which then grow into adults and have their own babies. The baby otters look like miniature versions of the adults.

 Do you know what a baby otter is called?

A baby otter is called a pup (or sometimes a kit or kitten).

A goose life cycle

- Look at the goose life cycle together. The goose shown is a Canada goose. You can often see them in parks across the UK.

Q How is this different to the otter life cycle?

- The female goose lays eggs rather than giving birth to babies.
- The shape of the young and adults is the same but the colour of the feathers is different.

Q Do you know what a baby goose is called?

A baby goose is called a gosling. They are covered in soft, fluffy down feathers and are unable to fly at first because they haven't yet strengthened their wings or developed their flight feathers.

A frog life cycle

- Now look at the frog life cycle.

Q How is this different to the other life cycles?

- The eggs are laid in water and are surrounded by a soft jelly rather than a shell.
- The young look very different to the adults.
- There is an additional stage.

Q Do you know what frogs' eggs are called?

Frogs' eggs are called spawn. Frogs can lay up to 4,000 eggs at one time!

Q Do you know what we call the animals at the next stage?

Tadpoles develop from the spawn. Frog tadpoles have gills like a fish meaning that they don't have to come to the surface to breathe.

Q Do you know what the baby frogs are called?

The tadpoles gradually change into 'froglets'. They grow legs and the tail starts to shrink. They develop lungs and need to come to the surface to breathe (just like the adults). The froglets grow bigger and completely lose their tails becoming adult frogs. The life cycle then starts all over again.

Key word: **METAMORPHOSIS**

Metamorphosis is when an animal's body changes completely as it goes through its life cycle. The tadpole looks very different to the adult frog, so we say the animal has gone through metamorphosis. Otters and geese don't go through metamorphosis. Their young look very much like, and are the same shape as, the adult animal.

A dragonfly life cycle

- Look at the dragonfly life cycle together with your child.

Q What are the similarities and differences between this and the other life cycles?

- Dragonflies lay eggs like geese and frogs. They lay their eggs either in or near water. They are laid in a jelly-like substance, like those of the frog.
- The young look very different to the adults.

Q Do you know what the first stage in the life cycle is called?

Dragonflies emerge from the eggs as nymphs (or larvae).

Q Does a dragonfly go through metamorphosis?

Yes, the nymphs look different to the adult dragonfly as they don't have wings and have a much shorter body.

The nymph crawls out of the water, up the stem of a plant. It sheds its skin onto the stem of the plant and becomes an adult dragonfly. This is called a 'molt'. When they molt, the skin is left behind.

Tip: Look for the shed skin on the stem of plants growing in and around ponds. They're a fantastic find!

Review: Re-creating the life cycles.

- Take the life cycle visuals. Cut out the individual stages of each.
- Jumble them all up.
- Challenge your child to re-create each of the life cycles:
 - 1 Sort your cut pieces according to which animal life cycle they are part of.
Taking each animal in turn...
 - 2 Place the different stages in the correct order.
 - 3 Stick them onto a separate blank piece of paper in the correct order.
 - 4 Add arrows showing which way the cycle goes.
 - 5 Label each of the stages as follows:

OTTER: PUP > ADULT OTTER

GOOSE: EGGS > GOSLING > ADULT GOOSE

FROG: SPAWN > TADPOLE > FROGLET > ADULT FROG

DRAGONFLY: EGGS > NYMPH > MOLT > ADULT DRAGONFLY

Q Imagine you were an animal that changes completely as it develops. How do you think this would feel? Isn't nature amazing!

Challenge

- Can your child draw and label another life cycle that has at least three different stages? This could be for any animal that we haven't already looked at.

Take it outside:

(30 minutes +)

- Lots of animals build a nest to protect their eggs and their young as they develop.
- Challenge your child to build a nest for a garden bird (you could choose an actual bird you see) using only natural materials they can collect from nearby.
- They will need to think about:
 - Which materials will be best for making the main structure of the nest? How will they hold together?
 - Which materials will be best for lining the nest? How will you make it comfortable, warm and cosy for the birds?
 - How big will the nest need to be to fit in an adult and several chicks?
 - How deep will it need to be to stop the eggs from rolling out?
 - Where will you place the nest? Think about how you will keep it hidden from predators and sheltered from bad weather.

Q Do you think the bird would like your nest? Why?

You could write a poem or story describing how the bird felt when they discovered your nest, ready-built, ready for them to move in.

- Have a look for young birds. The following will help you to identify them as youngsters:
 - The feathers on their tummy are usually still quite fluffy.
 - They often look a bit of a mess because their adult feathers are still growing through.
 - Their beaks often look too large for their heads because their beak grows faster than their head.
 - Their colours aren't usually as bright. This helps to camouflage them.
 - They tend to spend a lot of time hopping around on the ground as they're not yet confident fliers.

Q How did watching the baby birds make you feel?

Q How do you think the baby birds feel, taking their first few steps out into the big, wide world?

You could write a poem or story describing their feelings.

Q Which was your favourite baby bird and why?

- If you have access to a pond, you could also look for the skins of dragonflies left on the stems of pond plants. They're the most amazing things to find!

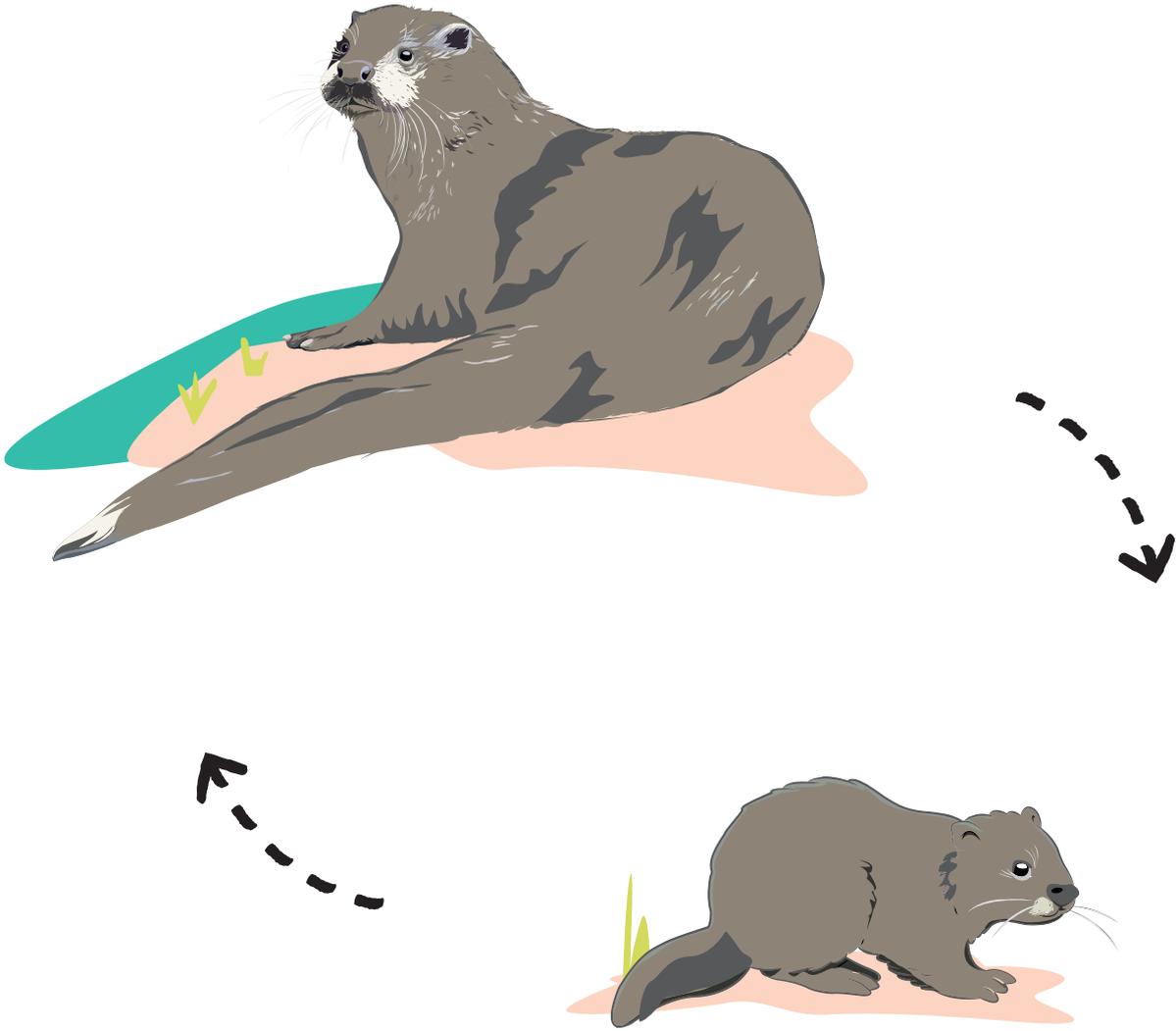


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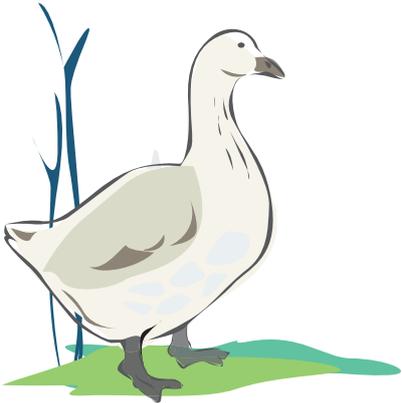
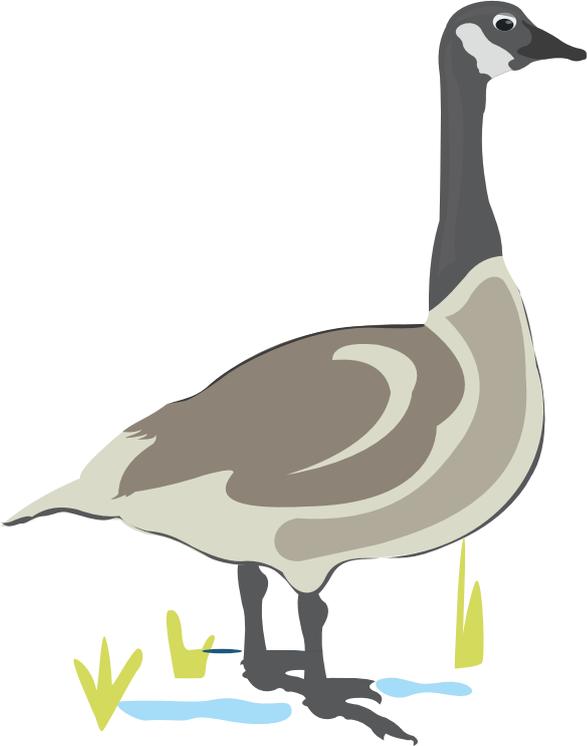


**Have fun and do share your work to our social media accounts –
we'd absolutely love to see it!**

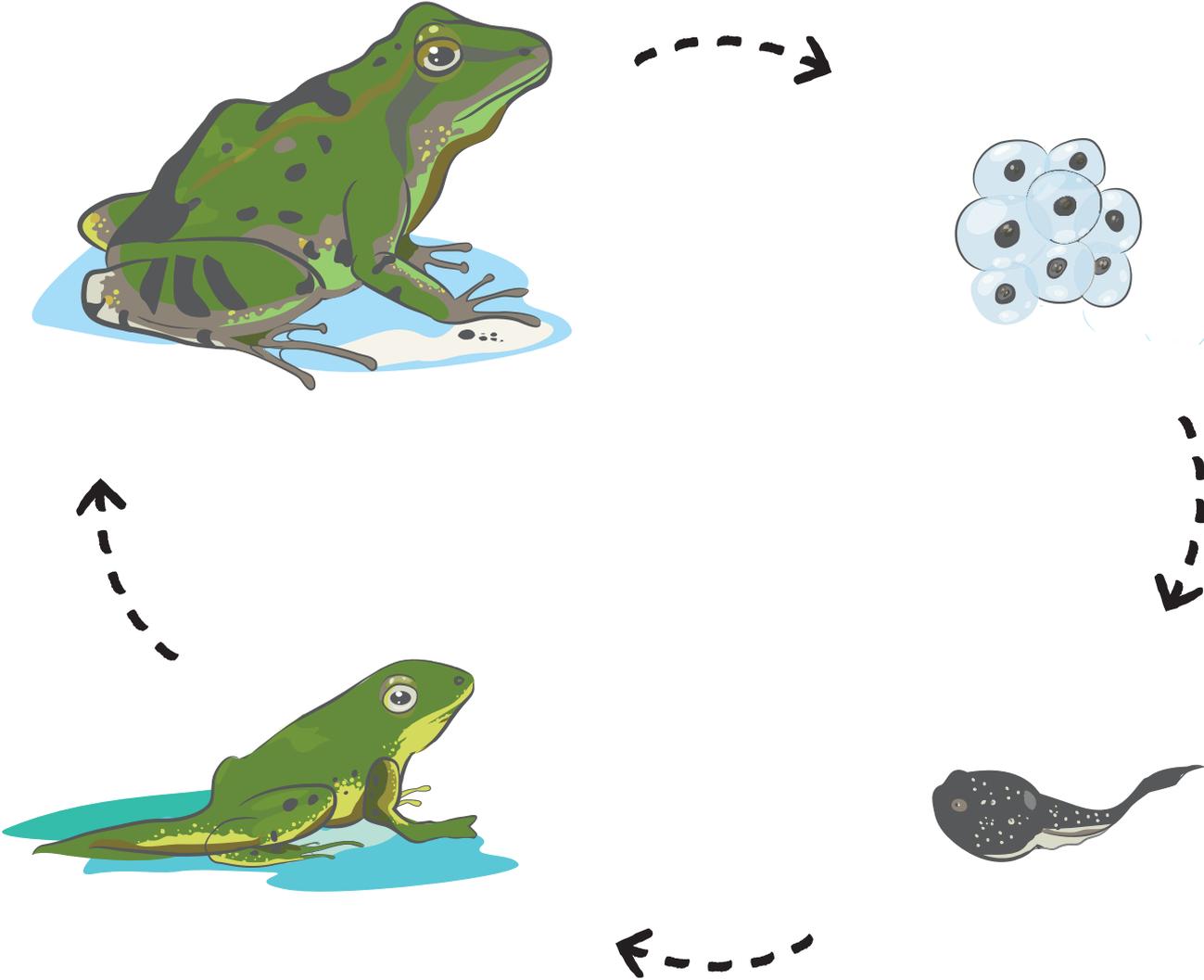
Life cycle – Otter



Life cycle – Goose



Life cycle – Frog



Life cycle – Dragon fly

