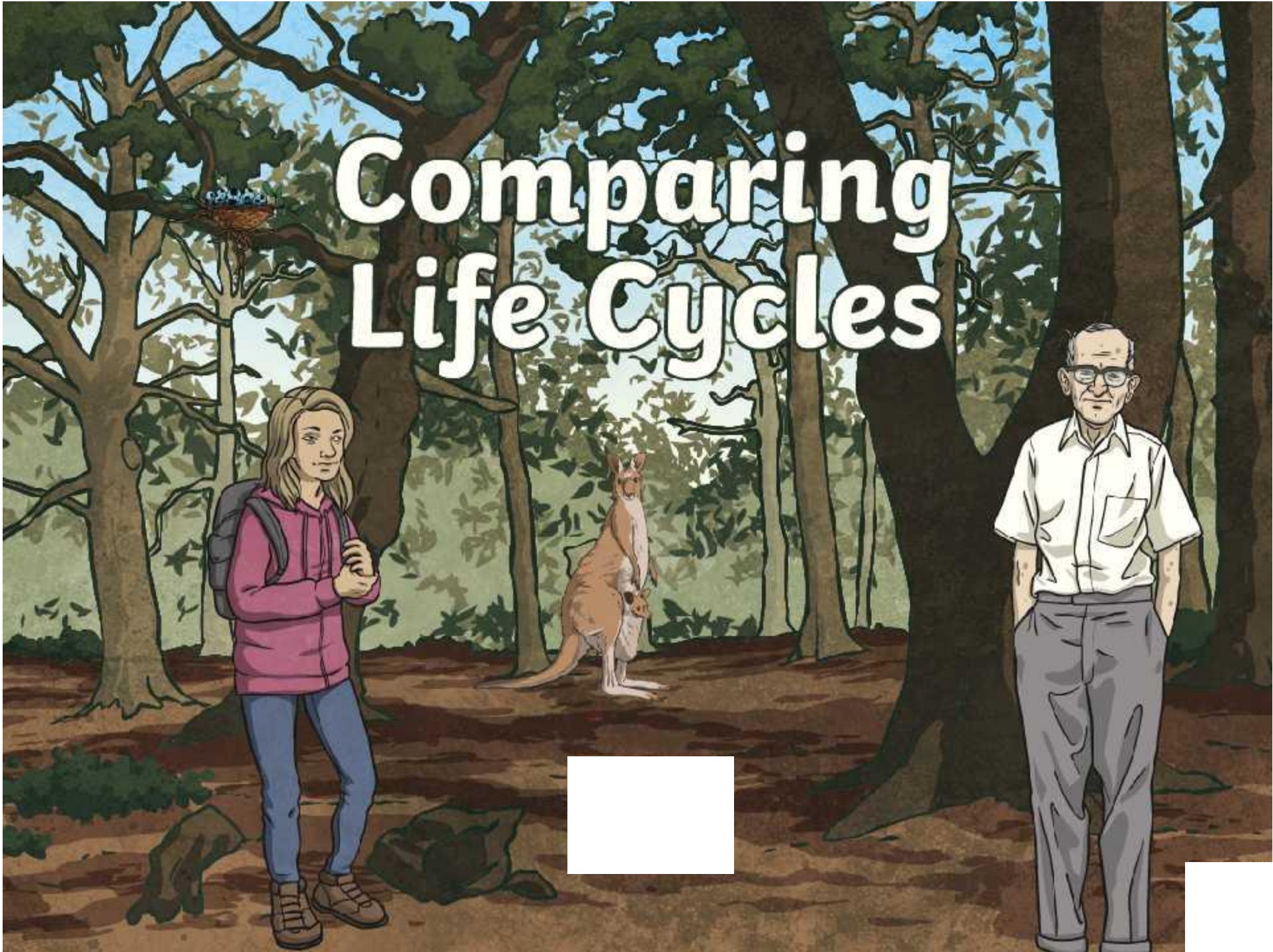


Comparing Life Cycles



Contents

What is a life cycle?

Insects

Mammals

Birds

Amphibians

Comparison

Reptiles

Plants



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What Is a Life Cycle?

- What is a life cycle?
- What life cycles do you know about?
- Can you describe the life cycle of an animal or plant?

Share your ideas as a group and then as a class.



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Mammals

The life cycle of a mammal involves three main stages:



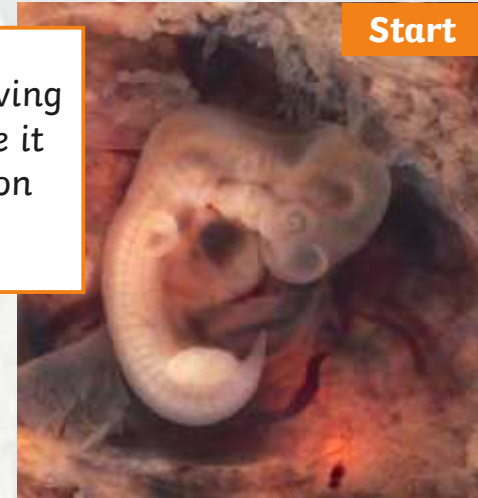
Independent adult usually seeks company from the opposite sex and mates. Adult female nurses their young.

Mammals:

- have hair or fur;
- Are warm-blooded;
- feed babies milk;
- give live birth.

Gestation: Embryo growing inside the mother, where it is completely reliant upon the mother.

Start



Young: Main period of growth and developing independence from the parents.

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Mammals



Interesting Fact

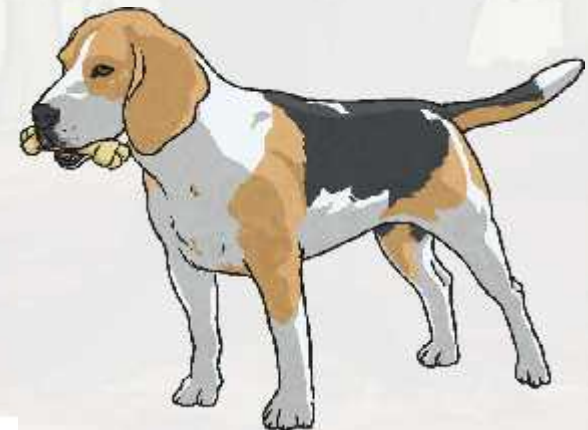
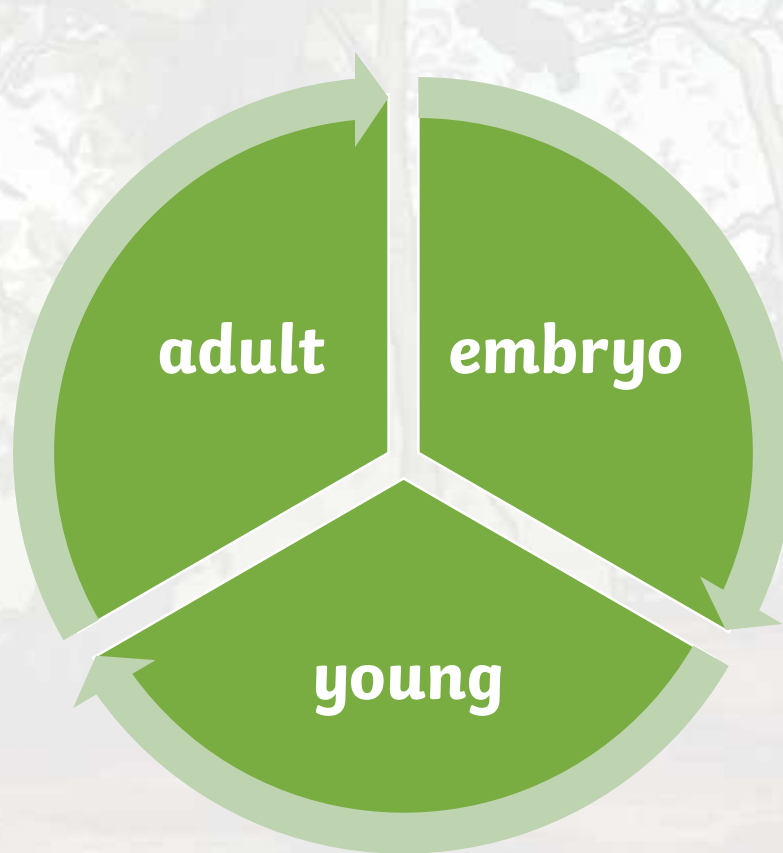
There are egg-laying mammals called monotremes. Australia is home to the echidna and platypus.



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Mammals

Choose a mammal and draw the life cycle stages.



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Amphibian

The life cycle of a frog involves five main stages:



The tail disappears and it starts to eat insects instead of plants. It takes two to four years to become an **adult frog** when it can lay eggs.

Amphibians:

- live in water and on land;
- have moist, slimy skin;
- lay eggs.

The tadpole grows fins and a stronger tail. Then it develops lungs and hind legs.



The tadpole grows front legs and its tail shortens. It uses nutrients in its tail as food. It jumps out of the water on to the land.



Start

The female lays masses of **eggs** which are fertilised by the male.

After 25 days, the **tadpole** hatches from the egg. It swims and eats plants. It breathes through its gills.



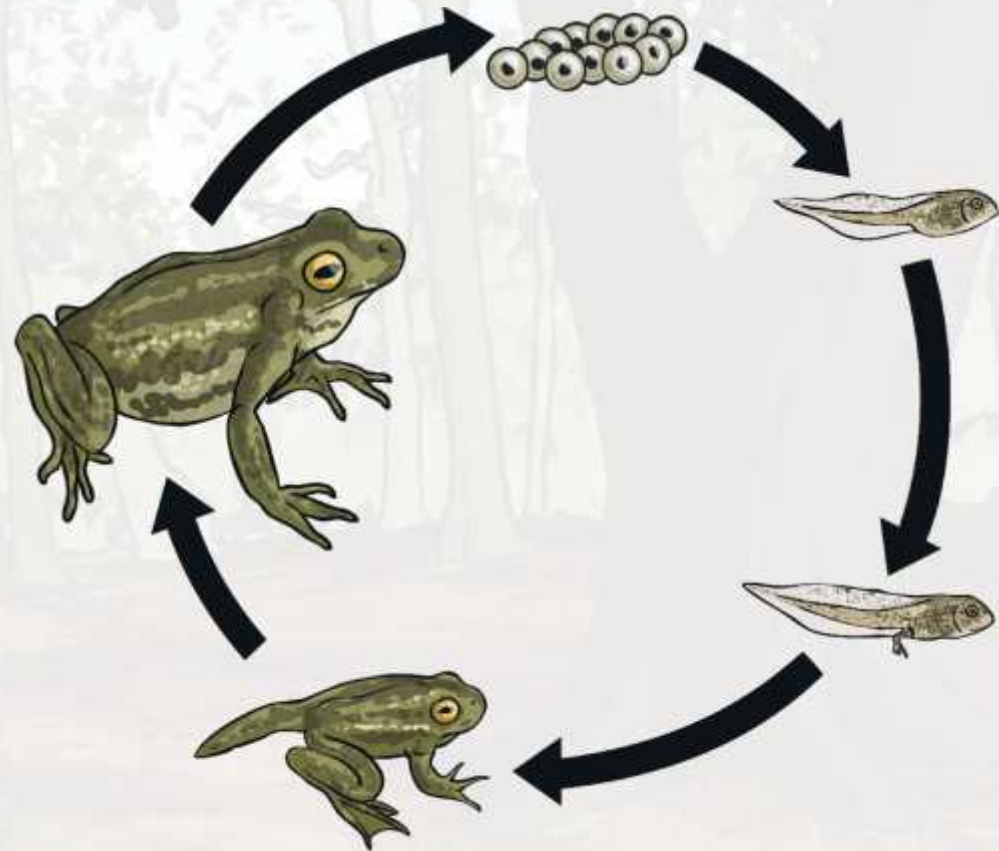
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Amphibian

The life cycle of a frog involves five main stages:

Present your learning about the life cycle of a frog (or a different amphibian) in one of these ways or in your own way:

- Create a computer based presentation like PowerPoint or Scratch
- Use drama
- Make a small book
- Your own idea



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Reptiles



When fully grown, the adult reptile will begin to mate.

The hatchling begins to grow and becomes a juvenile. The juvenile looks just like the adult reptile. The juvenile grows slowly over a long period before reaching adulthood.



Reptiles:

- hatch from eggs;
- are cold-blooded;
- have dry, scaly skin.

Interesting Fact

Due to the mother burying her eggs and leaving them to hatch, the hatchlings have to fend for themselves from the moment they leave their egg.

The female and male mate, then the female reptile lays fertilised eggs. An embryo starts to grow within the egg. Most reptiles bury their eggs and leave them to hatch alone.

Interesting Fact

Although most reptiles lay eggs, a few species give birth to living offspring.

When the embryo is fully formed, it is called a hatchling. It uses an egg tooth to break out of the egg or 'hatch'.

Start



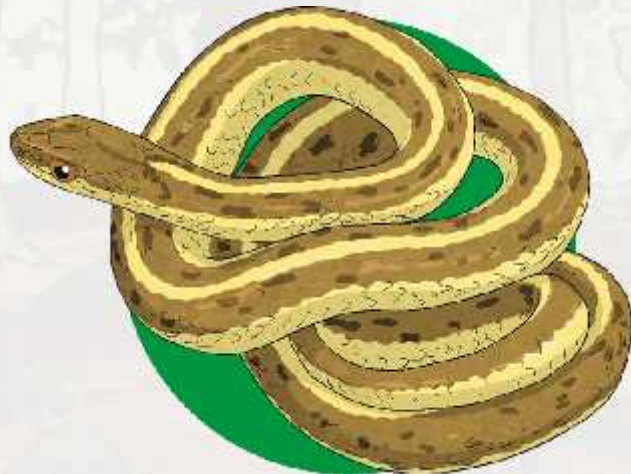
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Reptiles

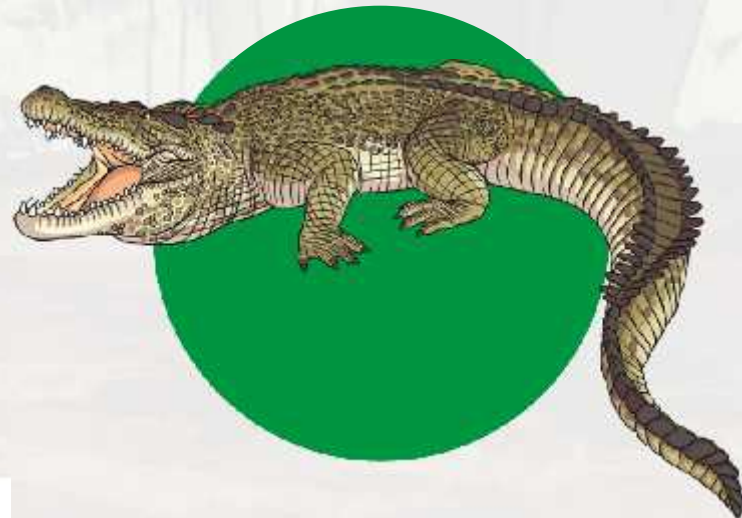
Although they are all classed as reptiles, the life cycles of some of these creatures can be very different from what we have learned so far.

Make a leaflet to showcase the differences between the life cycles of these two reptiles:

Garter Snake



Crocodile



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Insects

Most insects undergo complete metamorphosis.
This involves four main stages:



The **adult** breaks out of the pupa and matures.

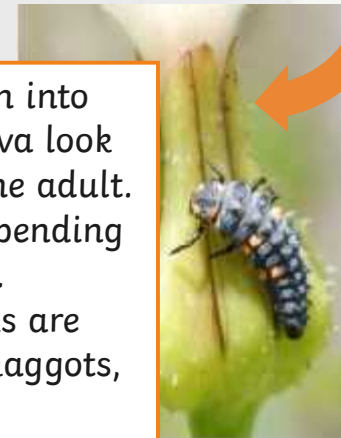
The **pupa** is formed when the larva moults for the last time. Pupa have a hard protective coating and are often camouflaged. The larva transforms completely inside the pupa.



Start

Eggs are laid by the female insect.

The eggs hatch into **larva**. The larva look nothing like the adult. This varies depending on the species. Common forms are caterpillars, maggots, grubs.



Insects:

- hatch from eggs;
- shed skin as they grow;
- experience metamorphosis in some cases.

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Insects

The life cycle of insects that don't complete metamorphosis involves three main stages:



The nymph grows into the **adult** form, sometimes shedding skin. In winged insects, fully-functional wings mark the adult stage. Adult females lay eggs.



Eggs are laid by the female insect.



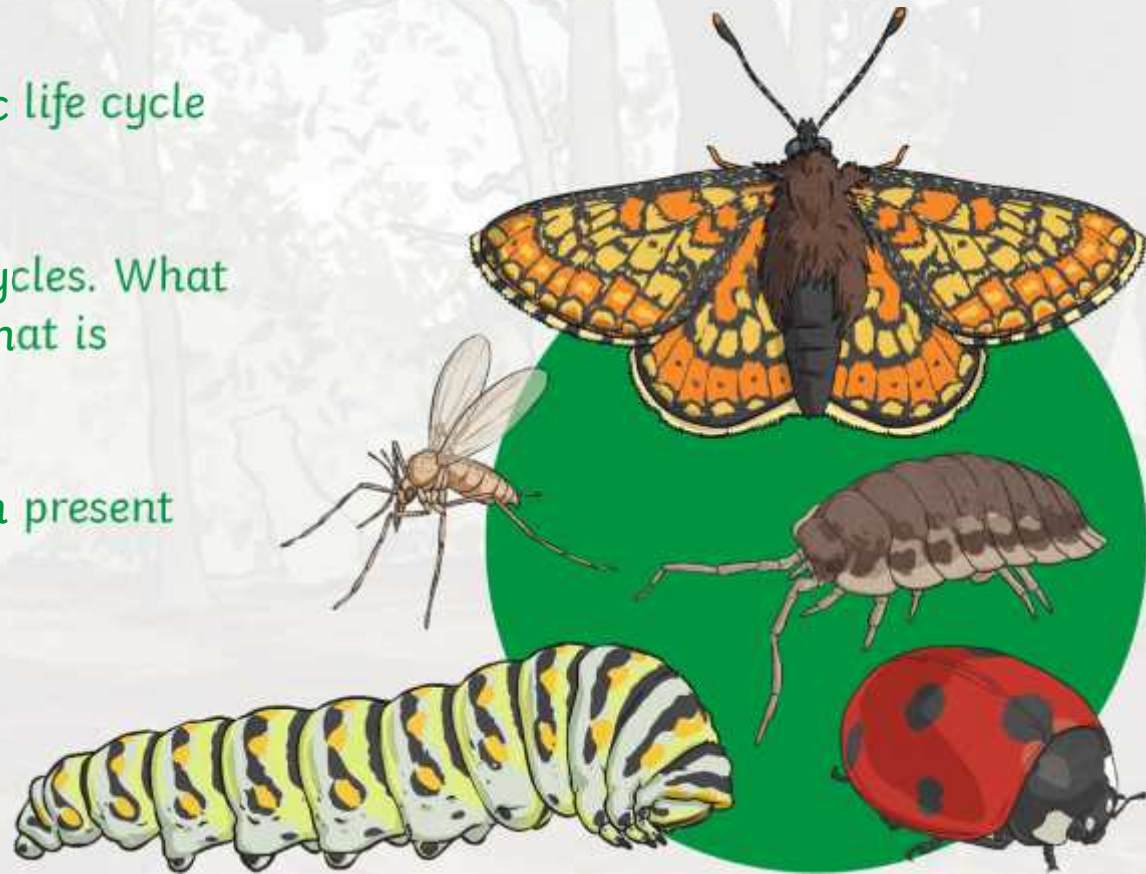
Eggs hatch into **nymphs**. Appearance varies depending on species. Nymphs look like a smaller adult insect and usually share the same habitat and food as the adult.

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Insects

Research the life cycles of two different insects.

- Explain the specific life cycle of each insect.
- Compare the life cycles. What is the same and what is different?
- Think how you can present your ideas.



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Insects

The life cycle of insects that complete metamorphosis involves four main stages:

complete metamorphosis



incomplete metamorphosis



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Birds

The life cycle of a bird involves three main stages:



Independent adult usually seeks company from the opposite sex and mates.

Birds:

- have feathers and wings;
- are warm-blooded;
- lay eggs.

Eggs are laid by the mother and the mother and father care for the egg until it hatches.



Start



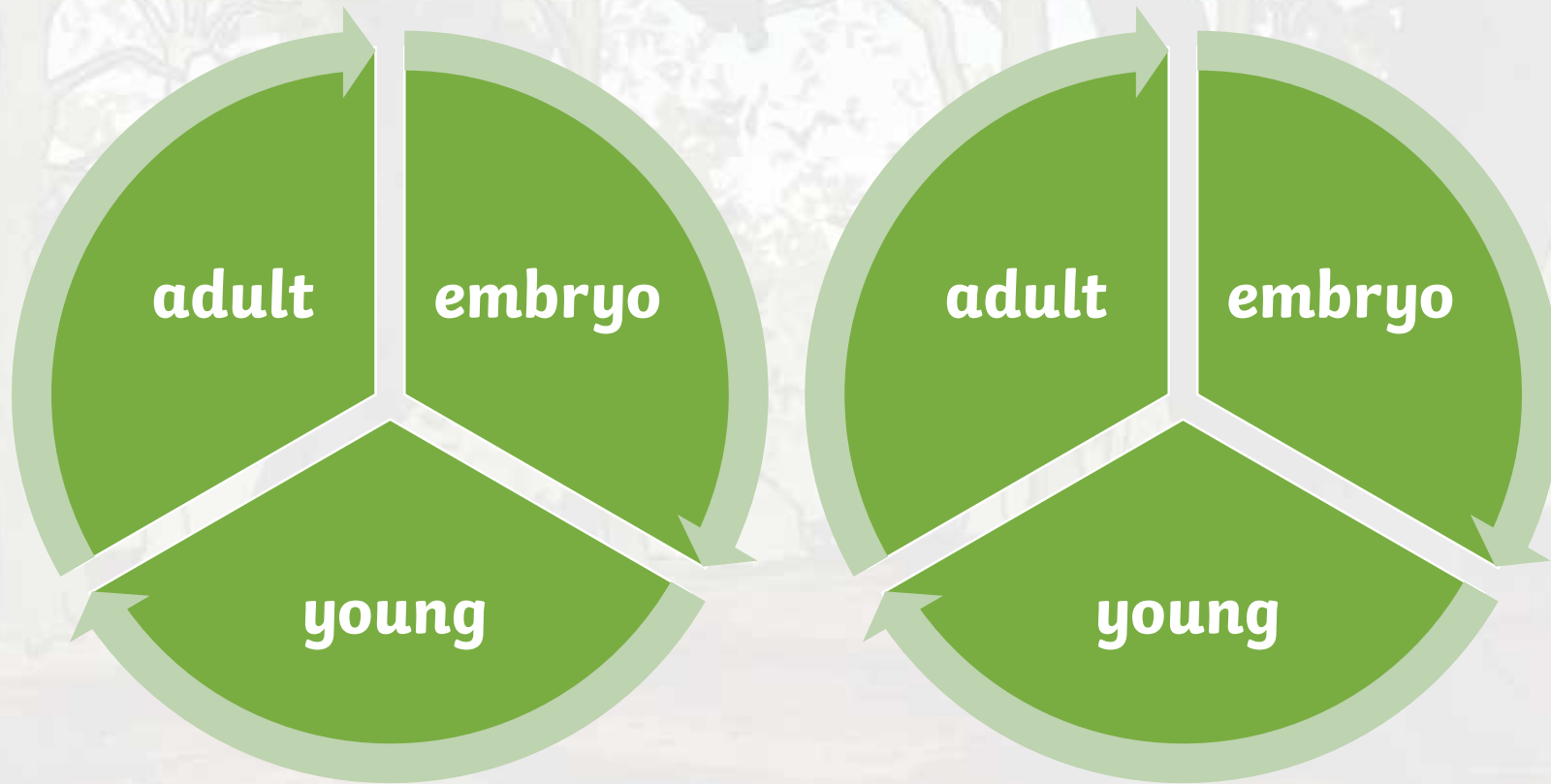
Mother and father feed the young bird until it is old enough to fly and find its own food.



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Life Cycles

Compare the life cycles of mammals and birds.



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Life Cycles – Mammals and Birds

Compare the life cycles of:

Similarities

Differences

Life Cycles

Compare the life cycles of mammals and birds.

Similarities

- There are three main stages.
- First stage is where embryo forms and grows.
- Second stage is where young is supported by parents.
- Third stage is adult stage where reproduction takes place.

Differences

- Mammals give birth to live young.
- Birds lay eggs.
- Mammal usually nursed by mother.
- Young birds usually fed by adult male and female.

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Comparing Life Cycles of Animals

Discuss the following questions:

Is a butterfly life cycle more like a ladybug or a dragonfly?

Is the life cycle of a dolphin more like a cat or a frog?

Is the life cycle of an echidna more like a hedgehog or a platypus?

Choose two different animals and compare...

- Their lifespan
- How they are born
- How they care for their young
- Their stages of growth
- How they reproduce



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Think About It!

Turn and talk to the person next to you about the following questions:

Do bats lay eggs because they have wings just like birds?

Do whales lay eggs because they live in the water just like fish?

Do animals that look similar always have the same kind of life cycle?

Do all animals that are a similar size always have the same kind of life cycle?

Do animals that live in the same habitat always have the same kind of life cycle?

Do only females carry and feed the young?

Do all animals need a mate to reproduce?

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Comparing Life Cycles of Animals

	Insects	Mammals	Amphibians	Birds	Reptiles
Born from eggs	Yes	Some Animals Do	Yes	Yes	Yes
Have a live birth	No	Yes	No	No	Some Animals Do
Female carries the young	No	Yes	No	No	No
Female produces milk to feed the young	No	Yes	No	No	No
Spends part of its life in water	Some Animals Do	Some Animals Do	Yes	No	Some Animals Do

Yes

Some Animals Do

No

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Flowering Plants

The life cycle of a bean involves five main stages:



Seeds are spread out so they can grow where they are not fighting for space with the parent plant.

Flowering Plants:

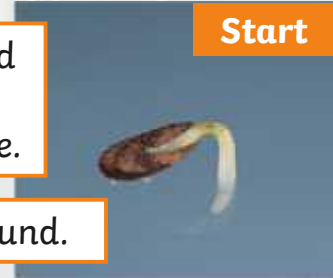
- have flowers which produce seeds;
- have seeds in fruit.



The pollen in the flowers is used to make seeds.

Roots grow, usually underground.

Germination: The seed starts to grow when conditions are suitable.



A stem and leaves form, and the plant makes its own food (photosynthesis).

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Non-Flowering Plants

The life cycle of a fern involves five main stages:



Seeds are spread out so they can grow where they are not fighting for space with the parent plant.

Non-Flowering Plants:

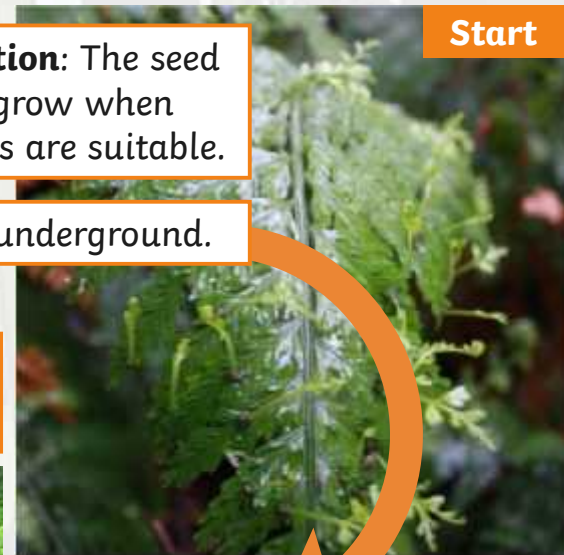
- have no flowers;
- produce seeds or spores which are spread by animals or the wind.

Seeds are produced (without flowers)



Germination: The seed starts to grow when conditions are suitable.

Roots grow, usually underground.



Start

A stem and leaves form, and the plant makes its own food (photosynthesis).



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Life Cycles

LO: To compare different life cycles.

