

Amphibians: Habitats and Life Cycles

Instructions: Read the text about amphibians. Look for the science vocabulary in bold. Then answer the questions.

Amphibians

Amphibians are a group of animals that include frogs, toads, newts, and salamanders. Most amphibians are **cold-blooded** (also called **ectothermic**), which means their body temperature changes depending on the environment. Amphibians usually have **moist skin**, and many can absorb water through their skin, so they often need to live in places that are damp.

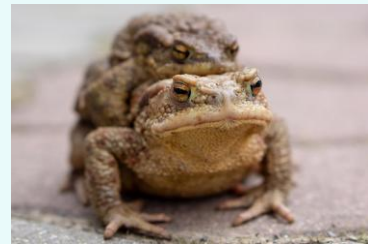
Amphibians are sometimes described as having a "double life" because many spend part of their life in water and part on land. Many amphibians start life as eggs in water, then change shape and become better suited to living on land.

Habitats and staying safe

Many amphibians live near **freshwater** such as ponds, streams, and wetlands. They need water for laying eggs and for the young stage of their life cycle. Amphibians hide under logs, stones, or leaves to stay damp and avoid drying out. They may also use **camouflage** to blend in with their surroundings.

Amphibians have predators, including birds, fish, and snakes. In cold weather, many amphibians slow down and may **hibernate** in mud, leaf litter, or

Amphibian



Wetland habitat



underground. Some toads also have skin glands that produce a bitter substance to help protect them from predators.

Life cycle and metamorphosis

Many amphibians lay eggs in water. Frog and toad eggs are often called **spawn**. The eggs hatch into larvae (for example, frog **tadpoles**). Tadpoles have **gills** to breathe underwater and a tail for swimming. Over time, they go through **metamorphosis**, which means their body changes shape. They grow legs, their tail shrinks, and they develop **lungs** so they can breathe air.

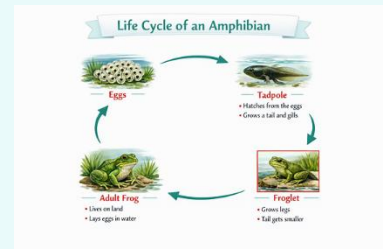
Breathing and skin

Adult amphibians can often breathe using their lungs, but many also breathe through their **skin**. This is why their skin needs to stay moist. If an amphibian's skin dries out, it can make breathing difficult. Amphibians are also sensitive to pollution in water because chemicals can pass through their skin.

Frog

Frogs often live near ponds and damp grass. Many frogs have powerful back legs for jumping and swimming. Frogspawn hatches into tadpoles, which later change into froglets during metamorphosis.

Life cycle diagram



Close-up skin



Frog



Toad

Toads are similar to frogs but often have drier, bumpier skin and can spend more time away from water, as long as they have damp hiding places. Many toads return to water to lay eggs and may hibernate in cold months.

Toad



Newt

Newts are amphibians that can live on land and in water. They often hunt small insects, worms, and larvae. Some newts return to ponds in spring to breed and lay eggs on pond plants.

Newt



Salamander

Salamanders look a bit like lizards, but they are amphibians with smooth, moist skin. Many salamanders live in forests where it is cool and damp. They hide under logs and stones during the day to keep their skin moist.

Salamander



Axolotl (a special amphibian)

An axolotl is an amphibian that stays in its water-larva form for its whole life. It keeps its feathery gills and does not go through the same full metamorphosis as many frogs. This shows that amphibian life cycles can be different.

Axolotl



Threats: Amphibians are affected by habitat loss and pollution. Because their skin is sensitive and they rely on clean freshwater, they can be good indicators of how healthy an ecosystem is.

Glossary

Word	Meaning
Amphibian	An animal like a frog, toad, newt, or salamander; many live part of their life in water and part on land.
Cold-blooded / ectothermic	Body temperature changes with the environment.
Moist skin	Damp skin; many amphibians need this so they can breathe through their skin and not dry out.
Freshwater	Water that is not salty (like ponds, lakes, and streams).
Camouflage	Colours or patterns that help an animal blend in with its surroundings.
Hibernate	To become inactive for a long time to save energy during cold weather.
Spawn	A group of frog or toad eggs laid in water.
Tadpole	The larva (young stage) of a frog or toad that lives in water.
Gills	Body parts that help an animal breathe underwater.
Lungs	Organs used to breathe air.
Metamorphosis	A process where an animal's body changes shape as it grows.

Questions

1. Which four animals are named in the text as amphibians?

2. Using the text, explain what **ectothermic** means and how it affects amphibians.

3. Why do amphibians often need to live in damp places? Give two reasons from the text.

4. Name two places amphibians might hide to stay safe and damp.

5. Put these life cycle stages in the correct order: adult frog, spawn, tadpole, froglet.

6. What does the word **camouflage** mean in this text, and how does it help amphibians?

7. What are frog and toad eggs often called?

8. How does a tadpole change during **metamorphosis**? Use the stages described in the text.

9. Which body part helps tadpoles breathe underwater?

10. Compare how a tadpole breathes with how an adult amphibian breathes.

11. What might happen if an amphibian's skin dries out, and why?

12. Give one difference and one similarity between a frog and a toad from the text.

13. Why do salamanders hide under logs and stones during the day?

14. How is an axolotl's life cycle different from that of many frogs?

15. What is the main message of the final paragraph about threats to amphibians?

Answer Key

1. Frogs, toads, newts and salamanders.
2. It means an amphibian's body temperature changes with the temperature of its surroundings. This affects amphibians because they depend on the environment to stay warm or cool.
3. They need damp places because their skin must stay moist, and many amphibians can absorb water or breathe through their skin.
4. Any two of: under logs, under stones, or under leaves.
5. Spawn, tadpole, froglet, adult frog.
6. Camouflage means colours or patterns that help an animal blend in with its surroundings. This helps amphibians stay safe from predators.
7. They are often called spawn.
8. During metamorphosis, a tadpole grows legs, its tail shrinks, and it develops lungs so it can breathe air.
9. Gills.
10. A tadpole breathes underwater using gills. An adult amphibian breathes air using lungs and can often also breathe through its skin.
11. If an amphibian's skin dries out, breathing can become difficult because many amphibians also breathe through their skin.
12. One difference is that frogs often have smoother skin and live near ponds, while toads often have drier, bumpier skin and can spend more time away from water. One similarity is that both are amphibians and both return to water to lay eggs.
13. They hide there to keep their skin moist in cool, damp places.
14. An axolotl stays in its water-larva form for its whole life and keeps its gills, instead of going through the same full metamorphosis as many frogs.
15. The final paragraph explains that amphibians are threatened by habitat loss and pollution, and that their sensitive skin and need for clean freshwater make them good indicators of ecosystem health.