

Section 30–3 Amphibians (pages 782–789)



TEKS FOCUS: 7B Results of natural selection in adaptation; 10A Body systems; 12C Variations and tolerances of animals in different biomes; **TEKS SUPPORT:** 2C Evaluate data

This section describes the characteristics of amphibians and how they are adapted for life on land. It also tells about the main groups of living amphibians.

What Is an Amphibian? (page 782)

1. Is the following sentence true or false? Amphibian adults are fishlike aquatic animals that respire using gills. _____
2. Circle the letter of each characteristic of amphibians.
a. scales b. claws c. moist skin d. mucous glands

Evolution of Amphibians (pages 782–783)

3. List three challenges that had to be overcome by vertebrates colonizing land habitats.
a. _____
b. _____
c. _____
4. List three adaptations that evolved in amphibians that helped them live at least part of their lives out of water.
a. _____
b. _____
c. _____
5. Amphibians became the dominant form of animal life during the _____ Period, also known as the Age of Amphibians.
6. Why did most amphibian groups become extinct by the end of the Permian Period?

7. What three orders of amphibians survive today?
a. _____
b. _____
c. _____

Form and Function in Amphibians (pages 784–787)

8. Circle the letter of each characteristic of a tadpole.
a. carnivore
b. herbivore
c. long intestines
d. short intestines

9. Circle the letter of each characteristic of an adult amphibian.

- a. carnivore
- b. herbivore
- c. sticky tongue
- d. long intestines

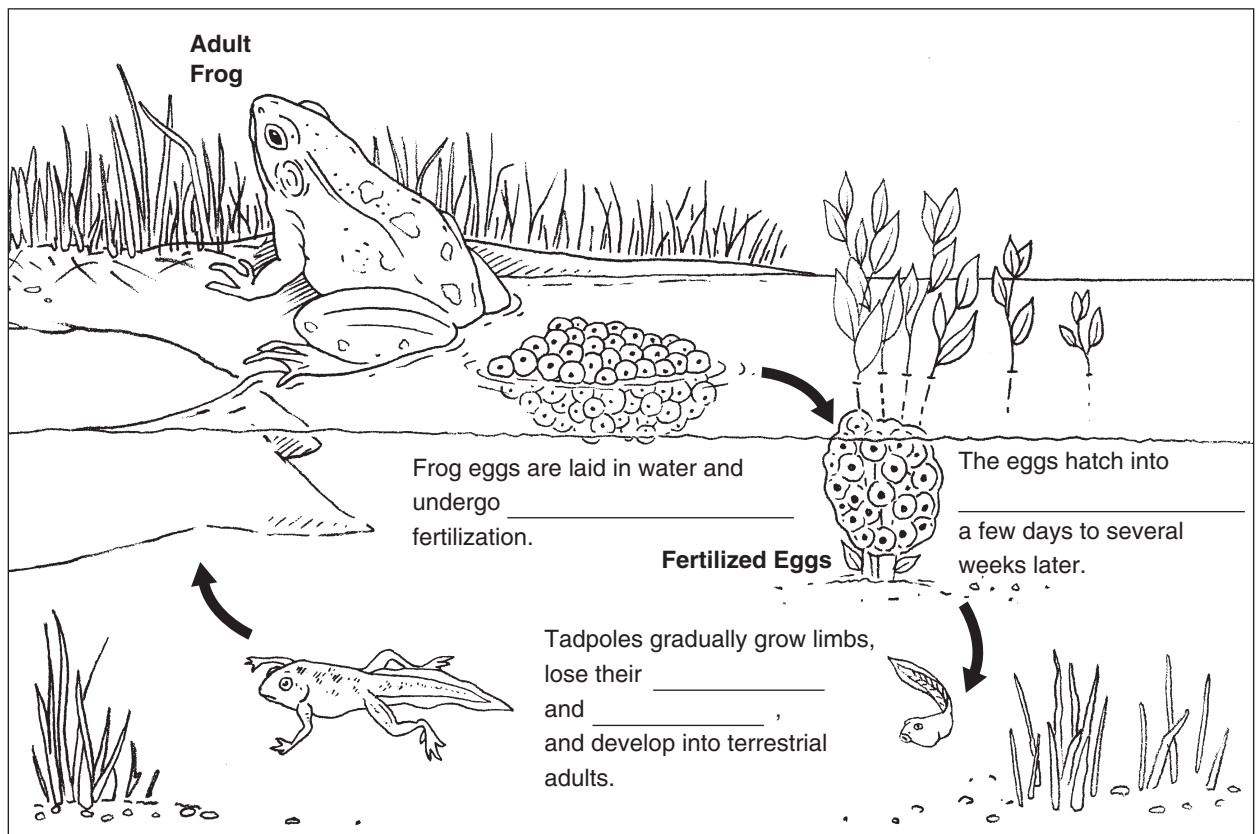
10. Briefly describe the path of food in a frog's digestive system.

11. Circle the letter of each sentence that is true about respiration.

- a. In tadpoles, gas exchange occurs only through the skin.
- b. Lungs replace gills when an amphibian becomes an adult.
- c. Gas exchange in adults can also occur through the skin.
- d. All adult amphibians have lungs.

12. Amphibians have _____ that filter wastes from the blood.

13. Complete the captions in the diagram about the stages in the life cycle of a frog.



14. How is the first loop in the circulatory system of an adult amphibian different from the second loop? _____

Match the type of amphibian with its method of movement.

Amphibian

Method of Movement

_____ 15. Tadpoles

a. Flattened tail for propulsion

_____ 16. Adult salamanders

b. Well-developed hind limbs for jumping

_____ 17. Frogs and toads

c. Legs push backward against the ground

18. Circle the letter of each sentence that is true about response in amphibians.

- a. An amphibian's brain is structured very differently from a fish's.
- b. An amphibian's eye is protected from damage and kept moist by the nictitating membrane.
- c. Frogs probably do not see color as well as fishes.
- d. Amphibians hear through tympanic membranes, or eardrums.

Groups of Amphibians (page 788)

19. Circle the letter of each characteristic of salamanders.

- a. tail
- b. carnivore
- c. herbivore
- d. short body

20. Circle the letter of each characteristic of frogs and toads.

- a. tail
- b. no tail
- c. able to jump
- d. adults have gills

21. Circle the letter of each characteristic of caecilians.

- a. legless
- b. long legs
- c. able to jump
- d. some scales

Ecology of Amphibians (page 789)

22. What are two ways in which amphibians protect themselves from predators?

- a. _____
- b. _____

23. Is the following sentence true or false? For the past several decades the number of living species of amphibians has been growing. _____

24. Circle the letter of each environmental threat to amphibians.

- a. decreasing habitat
- b. water pollution
- c. fungal infections
- d. acid rain

WordWise

Use the clues to help you identify the vocabulary terms from Chapter 30. Then, put the numbered letters in order to answer the riddle.

Clues

It's at the end of the large intestine in amphibians.

It often develops into the backbone.

It's an animal with a notochord.

It's softer and more flexible than bone.

It's responsible for all voluntary activities of the body.

It's the amphibian membrane for hearing.

Vocabulary Terms

— — — 1 — —

— — 2 — — — — —

— — — 3 — — — —

— — — — 4 — — — —

— — — — — 5 —

— — 6 — — — — —

Riddle: What heart chamber holds blood that will enter the ventricle?

Answer: 1 2 3 4 5 6