Frog Features

In “Killer Fungus” (p. 16), you learned that frogs and other amphibians breathe through their skin. Study the diagram below to learn about some other important adaptations of frogs. Then use the information in the diagram and the article to answer the questions that follow.

1. Describe at least two ways frogs’ eyes help them survive.

2. Describe at least two adaptations that help frogs avoid predators.

3. Using context clues, determine the meaning of the word permeable. Then write a sentence using the word.

4. What do you think would happen to a frog if its skin were to dry out? Explain your answer.

5. Use the information in the diagram and the article to explain why frogs are especially vulnerable to the chytrid fungus. Use evidence to support your answer.

ANALYZE IT

Respond to the following questions on a separate piece of paper.

GAS EXCHANGE
Frogs have thin, permeable skin. Oxygen and other gases can flow through their skin and enter blood vessels beneath the surface. Carbon dioxide flows out. When a frog is completely submerged in water, it can breathe entirely through its skin.

WET COATING
Glands release liquid to keep a frog’s skin moist. The liquid layer helps absorb oxygen from the air. Some frogs also have glands that produce poisonous chemicals that help protect against predators.

COLOR CHANGER
A frog’s skin contains special cells called chromatophores that give it color. Some frogs can change the amount of pigment in these cells to become darker or lighter to better blend into their environment.

EXPERT EYES
Frogs have excellent night vision, but their eyes are best adapted to see objects at a distance and to detect movements. A thin, transparent eyelid can close to protect their eyes underwater.

STICKING OUT
The shape and placement of the eyes on top of a frog’s head allows it to see in almost every direction without turning its head. The bulging eye shape also helps the frog swallow food. To eat, a frog pulls its eyes down into the roof of its mouth. That helps push food down its throat.

SKIN
LUNGS
PRIMITIVE LUNGS
Adult frogs have lungs they can use to breathe. Since most respiration occurs through the skin, the lungs are not fully developed.

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