Activity 12

Record Evidence Like a Scientist

Penguin

You have learned a lot about how different types of adaptations help plants and animals survive. Now let's return to the examples of how a lizard stays cool and a penguin's feet stay warm. **Review** the text, and the early ideas you recorded in Wonder. Then, **answer** the questions that follow.

How can you describe penguin feet now?

How is your explanation different from before?

Once scientist have asked questions and gathered information from multiple sourses. They share what they have learned. Look at Can you explain?question. You first read this at the begining of wonder. Think about how you would answer this question now. How is your answer different from before? Record some notes about examples.

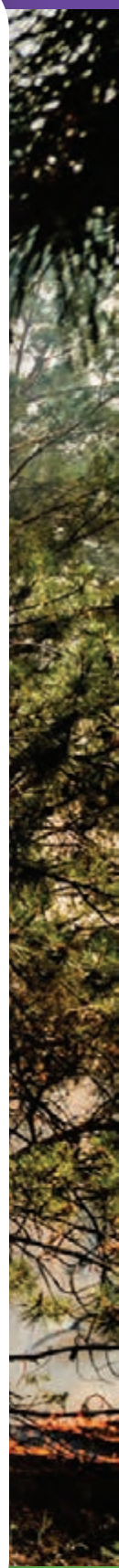
you can now use to answer the question.

Can You Explain?

How do different types of animals and plants adapt to survive in extreme climates?

Evidence

Now, **write** your new answer in full sentences to share your scientific explanation with others.



STEM in Action

Activity 13

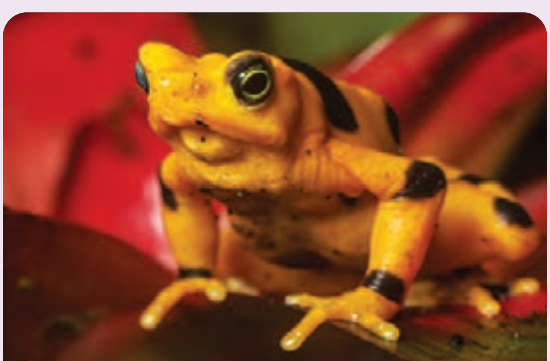
Analyze Like a Scientist

Function and Adaptation

Read the text about the work of scientists at the Amphibian Rescue and Conservation Project. Then, **answer** the questions.

Function and Adaptation

Amphibians are small animals such as frogs, toads, and salamanders that live in moist environments. Amphibians need water to survive in a different way than humans do. Take a deep breath in. You took oxygen from the air using your nose or mouth. Adult amphibians can breathe using lungs, like humans do, but they can also take in oxygen from water.



Panamanian Golden Frog

Photo Credit: K Hanley CHDPhoto / Shutterstock.com

Amphibians are covered with a skin that water and gases can pass through. As water comes into contact with their skin, amphibians extract oxygen directly from the water. This remarkable adaptation makes amphibians well-suited to wet environments like rainforests, streams, and ponds. Since these animals need clean water to stay healthy, it also makes them sensitive to the effects of pollution, habitat loss, and viruses that can travel through water.

Scientists are working to save many types of rainforest frogs from extinction. ARC scientists house a few representatives of each type of local endangered frog at their

Life Skills **I can choose the best solution to a problem.**

facility. Scientists study the frogs to solve the mystery behind what is making amphibians around the world disappear at alarming rates. Ninety species of amphibians have become **extinct** in the last 20 years and another 124 species are in dramatic decline. To find out what is happening to these animals, scientists must study how these animals interact with their environment and what in their surroundings is making them sick.

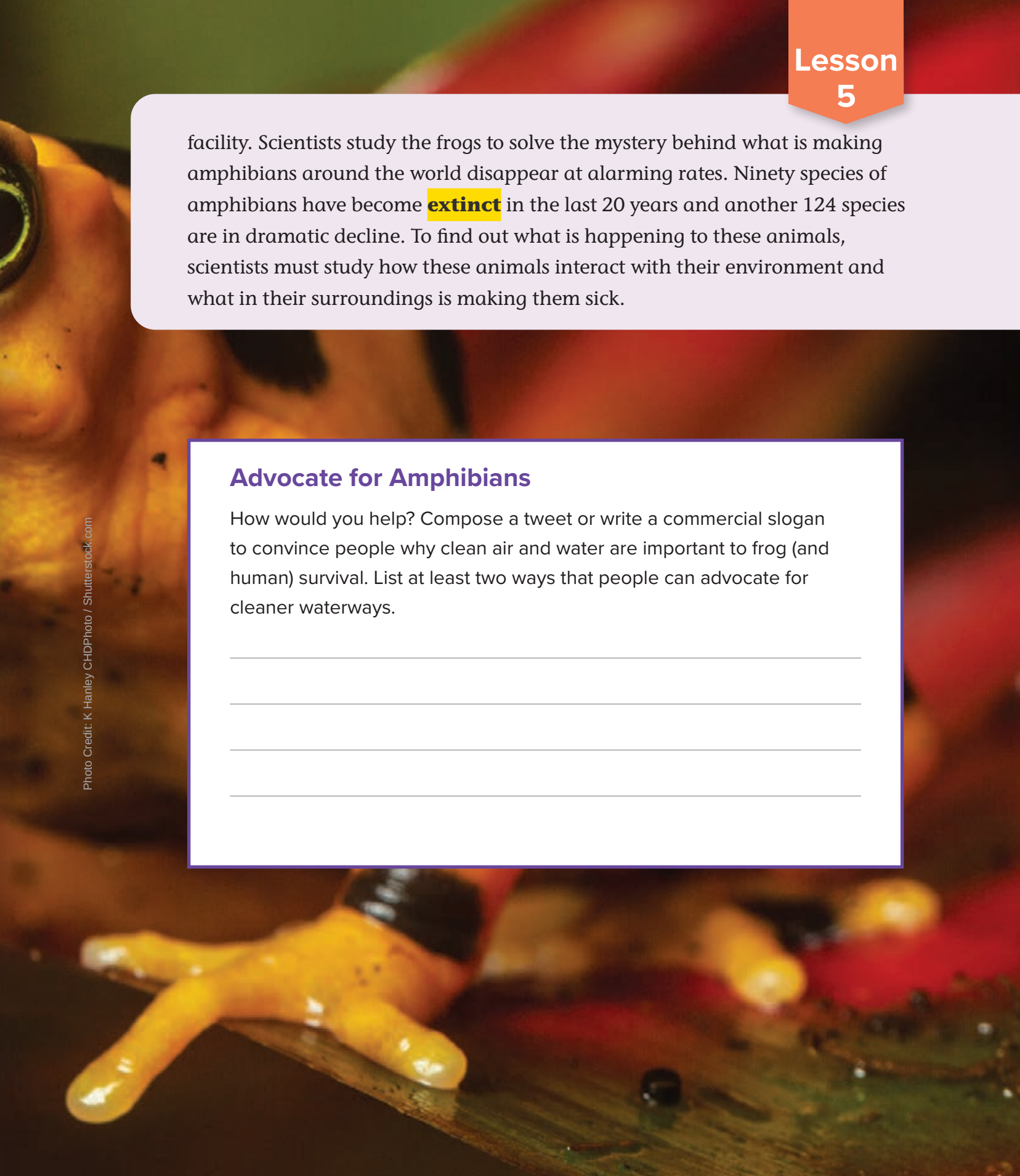


Photo Credit: K Hanley CHDPhoto / Shutterstock.com

Advocate for Amphibians

How would you help? Compose a tweet or write a commercial slogan to convince people why clean air and water are important to frog (and human) survival. List at least two ways that people can advocate for cleaner waterways.