mystery science

Grades K-5
Mini-Lesson: “How many kinds of frogs are there?”

VIDEO TRANSCRIPT

VIDEO 1

Hi, it's Jay. There's a sound that always reminds me of winter holidays. You might imagine something like sleigh bells, but it's actually this: *[coquí calls].* You see, every Christmas growing up, I would travel to visit family here in Puerto Rico. It's one of the only places on Earth where you can find coquís. They're these tiny frogs with big voices. At night, all through my grandparents' neighborhood, I'd hear the coquís’ unique call. It was like they were saying, “Welcome back!”

Someone named Paisley is curious about frogs. Let's give Paisley a call now.

[Video Call]

- Hi, Jay.
- Hi, Paisley.
- I have a question for you. How many kinds of frogs are there?
- That's a great question.

There are so many different kinds of frogs. Massive bullfrogs with booming voices, poison dart frogs with neon skin, and mossy frogs that are hide-and-seek experts—did you spot it here? There are frogs with spiky faces, frogs that look like purple goo, and flea toads so small they can perch on your fingertip. Yep, that one's a toad. You might think toads are their own thing. I know I did. But after some research, I learned that the frog group includes toads. So how many

kinds of frogs are there? In total, scientists think there are more than 5,000 different kinds of frogs today. That's an incredible variety. But what's just as incredible is how we know that. People had to go out and find those frogs, which isn't easy to do. Like, even though I've heard tons of coquís, I've only seen a few, and that was way out in the forest. Maybe you've been lucky enough to find a frog outside. Or maybe you know a bit about places where frogs live. What do you think? If you wanted to find frogs, where in the world would you go?

VIDEO 2

You probably had lots of ideas about where to find frogs. Maybe you thought of a field with a pond or a lush rainforest. But what about places that are hot and dry, or underwater, or cold and snowy? Turns out, you can find frogs in all these places. You just need to know where and when to look. Let me show you what I mean. Warm, wet rainforests are a great place for finding lots of different frogs. But to count them all, you'll need to look up—WAY up. That's because some spend most of their lives in the trees. Up here, climbing can be more useful than hopping. This tree frog's wide, grippy toes help it grab branches and cling to leaves. If a branch is too far to reach, some frogs have another way to move: they fly. Okay, it's really more like leaping and gliding, but people do call them flying frogs. These flaps between their toes spread out to catch the air, helping them glide farther. While rainforests might have lots of frogs, this hot, dry desert doesn't seem to have any. But wait until it rains. That's when burrowing frogs crawl out from beneath the sand. For months, they've been hiding underground to avoid the heat. They use their feet to dig down to where it's cooler. And see how plump this guy is? These frogs can store extra water in their bodies. It helps them survive those hot, dry months. While some frogs hang out underground, you'll find others underwater in ponds, like this African clawed frog. These big webbed feet help it push through the water. And check out its front limbs. They have these

delicate sort of fingers that are great for feeling around in muddy water to find food. Maybe you've seen other frogs catch food with their tongues. Well, clawed frogs don't have tongues. Instead, they grab food and shove it into their mouths. You can also find frogs in surprisingly cold places. This icy lump is actually a wood frog. Right now, most of its body is frozen. But amazingly, once it warms up, it's totally fine. Wood frogs can do this thanks to a chemical in their blood. If you're curious to know more, check out our mini lesson about the coldest temperatures that animals can survive. In warmer seasons, wood frogs travel between ponds and forests to find things they need. But when new roads cut through their home, traveling gets dangerous, and surviving gets harder. Unfortunately, that's something many different frogs have in common. Changes to their homes are making it harder to survive. A tree frog can't live high above the ground if a forest gets cut down, and a clawed frog can't survive underwater if its pond gets polluted. For all kinds of frogs to survive, we need to protect the different places they depend on. So, in summary, there are more than 5,000 different kinds of frogs, including creatures we call toads. And scientists are still discovering more. This incredible variety depends on different environments all around the world. Sadly, some places have fewer frogs than they did in the past. But by understanding what different frogs need to survive, we can better support them and the unique places they call home. That's all for this week's question. Thanks, Paisley, for asking it.