mystery science

Grades K-5
Mini-Lesson: “Why do animals become endangered?”

VIDEO TRANSCRIPT

Hey, it's Jay! When I was a kid, my family lived on the edge of a city. We didn't have to go far from home to see traffic and tall buildings, but behind our house was a forest. And occasionally, we'd get a visit from our wilder neighbors, like these. Sometimes, deer poking around our yard was annoying. They ate our flowers, but it was also a reminder that we shared our space with wild animals. Someone named Kesiah has a question about the animals we share the world with. Let's call Kesiah now.

[Video Call]

- Hi, Jay!

- Hi, Kesiah!

- I have a question for you. Why do animals become endangered?

- Great question.

Why do animals become endangered? An animal is considered endangered when that kind of animal, that species, is in trouble. When there are zero of a species left, that's called extinction. An endangered species is a species in danger of extinction. But what makes a species go extinct? To answer that question, it might help to think about the opposite. What keeps a species healthy? Now would be a good time to pause the video and discuss. Okay, ready? All animals need certain things to stay alive and healthy, things like food, protection from danger,

room to move, and a safe place to have babies. The place an animal lives that has the things it needs is its habitat. Different animals have different habitats because they need different things. This desert has everything this lizard needs: sunny rocks to warm up on, ants to eat, sand for burrowing. But imagine if this salmon tried to live here. Yikes, way too hot and dry! This is a terrible habitat for a salmon. Our planet has gone through lots of changes over the years. As the Earth changes naturally, sometimes a species can no longer find a habitat that has what it needs. Like, imagine a lake slowly dries up. The fish that live in the water won't be able to live on dry ground, right? If they can't find more water, they won't survive. In the end, sometimes a species that loses their habitat like this goes extinct. But there's something else that can make big changes to animal habitats: humans. Let's take a closer look at how this happened for one kind of animal. This is a bald eagle. Bald eagles live in many places from Alaska to Mexico. They tend to live in places that have water, like rivers or lakes, and tall trees, like these. Bald eagles eat fish that live in bodies of water, and they build nests in tall trees. That's how they protect their eggs. This is a bald eagle habitat. Many years ago, bald eagles became endangered. Even in places where bald eagles had tall trees to live in and lots of fish to eat, they still weren't having many healthy babies, and wildlife experts were confused why. What was going on? The answer turned out to be something hidden. Years earlier, scientists had discovered an incredible new way to kill pests, a chemical called DDT. People sprayed lots of it on their farms, lawns, parks, and even public pools. But all that DDT didn't always stay where it was sprayed. Sometimes, it dripped into streams and rivers. Fish in those rivers soaked up DDT. See any possible problems here? When bald eagles ate fish loaded with DDT, that wasn't good for them. It made it hard for them to have healthy babies. Chemicals like DDT aren't the only thing that can cause harm like this. This sea turtle is swimming in its habitat, the ocean, but look what's happened. It got caught in trash. If the turtle stays stuck, do you think it'll be able to lead

a healthy life and have healthy babies? Not likely. When something gets into nature that causes harm like this, it's called pollution. Luckily, in this case, divers cut the sea turtle free. Still, pollution is a problem in many habitats around the world, but we can help solve this problem. In 1972, the US passed a law, making it illegal to spray lots of DDT outdoors. As people stopped spraying DDT where it could enter bald eagle habitats, they started having more healthy babies. Like many kinds of pollution, leftover DDT in natural spaces may continue to be a challenge, but limiting the flow of new DDT into animal habitats was an important first step. People also took steps to protect bald eagle habitats in other ways, like check this out. Some places, people have built these, tall platforms perfect for nesting. These help bald eagles find what they need, even in areas where trees have become more scarce. Because of changes like these, there are now way more bald eagles than there once were. So in summary, every animal has a habitat—the place they live that has the things they need to stay alive and healthy. When habitats change naturally over time or when humans harm or pollute animal habitats, the species that live there might not have what they need anymore. Sometimes, they become endangered. Still, there's lots we can do to protect animals and their habitats and help keep species from going extinct. We can keep our streets free of trash so it doesn't end up where it can harm animals like sea turtles and we can help endangered animals near us find what they need, like by building platforms for eagle nests. Small changes to how we live can keep habitats healthy for us and the incredible animals we share the world with. That's all for this week's question. Thanks for asking, Kesiah!