mystery science

Grades K-5
Mini-Lesson: “How do scientists learn about wild animals?”

VIDEO TRANSCRIPT

VIDEO 1

Hey, it's Esther! Check this out. This is a robot spy hummingbird. It's a camera disguised to look like an ordinary hummingbird. Scientists use the spy hummingbird to sneak into a rare and incredible gathering of wild animals. A swarm of monarch butterflies. With the secret camera, we can see the swarm up close without scaring the butterflies away. Someone named John has a question about animals in the wild like these. These let's give John a call now.

[Video Call]

- Hi, Esther!

- Hey, John!

- I have a question for you. How do scientists learn about wild animals?

- That's a great question.

When you want to learn something new about wild animals, maybe you read a book about animals or watch a video online. But how do the people who write those books and make those videos learn all that information? I wonder if you have any ideas. How do you think scientists learn about wild animals?

VIDEO 2

Getting to know wild animals isn't the easiest thing for scientists to do. For one thing, wild animals are, well, wild. They're often afraid of people and can even be dangerous. So what can we learn about wild animals in the places they naturally live? I want to introduce to you to a scientist who's learned a lot about this. You may have even heard of her before because her work is so famous. Her name is Jane Goodall. Even when she was young, Jane Goodall loved animals. As a kid, she used to sneak into the chicken coop her family kept to watch the chickens lay eggs. Her favorite toy was a stuffed chimpanzee, and she dreamed of one day traveling to Africa to see chimps in person. As a young woman, Jane Goodall saved up enough money to follow her dreams. In 1960, she traveled to the country of Tanzania, where she got a job studying chimpanzees in Gombe National Park. Back then, scientists didn't know much about chimpanzees. There weren't as many books or films about them as there are today. And there weren't gadgets like the spy hummingbird camera that could help scientists see wild animals deep in the forest. No one had ever been able to get near enough to chimpanzees in the wild to actually study them closely. To do what no scientists had been able to do before, Jane Goodall would have to be patient, really, really patient. Every day, she hiked into the rainforest looking for chimps. Some days, she couldn't find any. And when she did glimpse a group of chimpanzees, they usually ran away as soon as she came near. To them, Jane Goodall was a stranger invading their home, and they were scared of her. But Jane Goodall made up her mind that she would earn their trust. Every day, she went as close to the chimps as she could without scaring them. And then she sat there still and silent, hour after or hour, day after day, just watching. She did this for weeks and weeks. Imagine how tired and itchy and bored she must have felt sometimes. But slowly, very slowly, the chimps started getting used to having her

there. Over time, Jane Goodall moved closer and closer, and then a little bit closer, until she could sit right in the middle of the group without bothering them. In words and drawings, Jane Goodall carefully recorded everything she noticed, down to the tiniest detail. She recorded what each chimpanzee looked like what they did each day, what they ate, how they played and fought and changed over time. She even recorded the faces that chimps made at each other. Through her observations, Jane Goodall got to know each member of the group like a friend. She even gave the chimpanzees names, like David Greybeard, Flo, and Frodo. Now, you might think that Jane Goodall's approach makes sense. When you meet someone new, maybe you feel shy at first, but as you become friends, you relax and start to act like your regular self. So the friendlier Jane Goodall became with the chimpanzees, the better she could understand them, right? It may seem obvious now, but, at the time, scientists didn't do this. Back then, scientists used numbers to name the different animals they saw and tried not to get too friendly with them. To them, Jane Goodall's approach was new and even a little shocking. But Jane Goodall believed that building close relationships with chimpanzees was the best way to learn what they were really like. And through her methods, she made some incredible discoveries. Before Jane Goodall's work, most scientists believed that only humans had personalities and relationships, but through her observations, Jane Goodall learned that each chimpanzee was different. Each had a unique personality. Some were bold, others shy, some energetic, others calm and quiet. And each chimp had complicated relationships with the other chimps in the group, from loving friends, to siblings who annoyed each other, to bitter enemies. She also noticed something else, something that looked simple, but really wasn't. She noticed that sometimes chimpanzees used twigs to pull termites out of termite mounds, kind of like you or I might use a spoon or chopsticks to scoop up a snack. This meant that chimpanzees used tools. At the time, most scientists thought that only humans used tools. So this was big news. Jane continued her work with

chimpanzees for many, many years. As of 2022, at 87 years old, she's still working to help people learn about chimpanzees and how to protect them and other wild animals around the world. These days, new technologies, like GPS devices or robots spy hummingbird cameras, can help scientists track and observe animals in the wild. Technology can be an incredible tool for a wildlife researcher, but ultimately, the best tech helps us do what Jane Goodall did. Get close and pay attention. In summary, observing animals in the wild isn't easy, but it can teach us a lot. Jane Goodall was a patient and thoughtful observer, and it paid off. She learned many things about chimpanzees that we never knew before and set the standard for how we study wild animals today. And you can do this too. What kinds of wildlife live near you? Are there birds, bugs, squirrels? See what you can learn about the wildlife around you by being patient, watching carefully, and recording what you notice. You might make some new discoveries of your own.

> - If we keep our eyes open, our ears open, and think of every day as an adventure, then each day will give us a lesson.

That's all for this week's question. Thanks, John, for asking it!