mystery science

Lesson: “Why do some animals live in groups?”

VIDEO TRANSCRIPT

EXPLORATION VIDEO 1

Hey, it's Jay from the Mystery Science team. Check out what's happening in the sky here. Weird, right? From far away, it's hard to tell what this swirling bunch of dots in the sky is. But if you get closer, you'd see that these are birds. Specifically, it's a flock of starlings. There are so many of them grouped together that when they fly, they look like some kind of black cloud. Amazing. Whether it's a big bunch of birds or a long line of ants, there's something that feels special about spotting a whole group of animals together in the wild. We even give animal groups special names sometimes. You've probably heard of some of these names before, like a school of fish or a pride of lions. But did you know that a group of jellyfish like these is called a smack of jellyfish? And this is a fever of stingrays. And my favorite, these blue jays are called a party, a party of jays. Whether they have a special group name or not, many different types of animals live in groups. There are big animals that live together, like this group of elephants, which is called a herd, or this group of orcas, which is called a pod. And there are teeny animals that live in groups, like this colony of bees. Some animals live with only a few other animals, like these giraffes. And some animals live with many, many other animals. Check out this enormous school of tuna. Groups of animals like these can be incredible to look at, but living in a group isn't always easy. Take a moment to think. What can be difficult about living or working in a group?

EXPLORATION VIDEO 2

There are definitely challenges to living in a group. Animals that live in groups have to decide what to do and where to go together. For example, this elephant might want to go this way, but she has to go the other way because that's what the rest of her herd has decided to do. Sometimes group members have such a hard time agreeing that they fight. Plus, animals that live in groups have to share. If this wolf caught a yummy snack, he can't just gobble it up all by himself. He has to give some of it to the other group members. So with all these challenges, why do these animals live together? I mean, plenty of animals don't live in groups. Like an octopus, a tortoise, a sloth. In fact, most animals in the wild are solitary. They live mostly on their own. So why do some animals live in pods or flocks or herds or colonies, even though it can be difficult? I wonder what you think.

ACTIVITY INTRODUCTION VIDEO

In today's activity, you're gonna watch animals from all over the world and write down what you observe in a field journal. You're gonna see some amazing animals, like meerkats that live in the Kalahari Desert of Africa and snow monkeys that live in Northern Japan. In your field journal, you'll record what you notice, just like scientists do. When you're done, you'll use the information you collected to come up with ideas about why these animals live in groups. I'll show you how to get started, step by step.

ACTIVITY STEP 1

Get your supplies. When you're done with this step, press the arrow on the right.

ACTIVITY STEP 2

Before you start watching animals, you're going to make a field journal. Scientists take notes to help them remember what they see and collect evidence or clues that support their ideas. To make your journal, first, you'll flip each page over and fold it in half like this, with the words on the outside. Now, you'll wanna line up the edges. Then, run your fingernail along the edge to make a good crease. Go ahead and do this for all three pages.

ACTIVITY STEP 3

Find the A, B, and C in the corner of the papers. Then, stack them like this. A goes on top, B in the middle, and C at the bottom. Once you have them stacked like that, fold them in half all together like this. Run your fingernail over the edge to make a nice crease.

ACTIVITY STEP 4

Find a partner to help you staple. Hold the stack together and make sure the edges are all lined up. Your partner staples your journal on each white rectangle where it says staple. Then, help your partner. When you're stapling something, one thing that helps is to stand up and push hard with both hands.

ACTIVITY STEP 5

Okay, write your name and the date on the cover. Then, open up each page of your journal and fold it, like this. Run your fingernail over the edge to make a nice crease. Go ahead and do this for the whole journal.

ACTIVITY STEP 6

You'll start your observations with a visit to the meerkats in the Kalahari desert in Africa. Watch the video. Be sure to pay attention to what the meerkats do. You don't have to write anything yet. Okay, I'll play the video a few times more. When you're done, you can go to the next slide.

ACTIVITY STEP 7

Open your field journal to the meerkats pages. Discuss the questions with your partner, then write your answers to the questions. We'll keep playing the video in case you need another look.

ACTIVITY STEP 8

Now you'll travel to the European country of Estonia, where an eagle is eating its dinner. Watch the video. Pay attention to what the group of ravens, the black birds, do. You don't have to write anything yet. I'll play the video a few times. When you're done, go to the next slide.

ACTIVITY STEP 9

Open your field journal to the ravens pages. Discuss the questions with your partner and write your answers to the questions. We'll keep playing the video in case you need another look.

ACTIVITY STEP 10

Now you'll travel to Japan, where snow monkeys live. Watch the video. Pay attention to what the snow monkeys do. You don't have to write anything yet. I'll play it a few times and when you're done, you can go to the next slide.

ACTIVITY STEP 11

Open your field journal to the snow monkeys pages. Discuss the questions with your partner and write your answers. We'll keep playing the video in case you need another look.

ACTIVITY STEP 12

Now you'll travel to Yellowstone National Park in Wyoming, USA, where a herd of bison are grazing on a snowy slope. But then, a wolf comes. Watch the video and pay attention to what the bison do.

ACTIVITY STEP 13

Open your field journal to the bison pages. Discuss the questions with your partner and write your answers. We'll keep playing the video in case you need another look.

ACTIVITY STEP 14

Discuss. Then fill in page nine in your field journal.

ACTIVITY STEP 15

Turn to page 10 and fill in the answer. When you're done, watch the final video.

WRAP-UP VIDEO

In the activity, you did what scientists who study animals do. You carefully observed animals and took notes to figure out how they work together in groups. You probably noticed how living in a

group can help some animals survive. For example, in meerkats, one meerkat keeps lookout while the others find food. If a predator like an eagle gets near, the meerkat in charge of lookout warns the others to run back to the burrow and hide. Bison are another animal that stay safe in a group. They come close together and defend themselves from predators like wolves that might try to attack a single bison by itself. By staying in a large group, bison can protect one another from predators. Protection is one really important reason for living in a group, but it's not the only reason. You also saw how some animals live in groups because it makes it easier to get food, like we saw with these ravens. Some of the ravens distracted the eagle, while the other ravens grabbed its food. A single raven never could have done this alone. The ravens got more food by working together. Many predators, too, like dolphins and lions, hunt for their food in groups. They're more likely to catch food when they work together as a group. Animals living alone, like this solitary wolf by itself, have a much harder time hunting. So some animals live in groups for protection and some for food, but there's still another way it can be helpful for some animals to live in a group. When an environment changes quickly, like when the weather gets really cold, it sometimes helps if animals live in a group. Like in the activity, you saw a group of snow monkeys huddle together in a blizzard to stay warm. One of the most interesting animals that lives in groups is one that lives all over the world. They're these: ants. Hundreds of thousands of ants live together in a group called a colony. If you've ever accidentally stepped on an anthill, then you know how ants try to defend their colony. A huge swarm of them come out of the anthill, ready to bite any intruders. Ants live in a group for protection, but ants also work together to gather food, like here. These leafcutter ants are trying to cross from one tree to another to bring back food to the rest of their group. A single ant couldn't get across this gap all by itself. But together, the ants are able to form a bridge so that other ants can carry food across. So living in a group helps them get food. Ants also respond to changes in the

environment as a group, like when it pours rain. Check this out. This is a video someone took after a big flood. Now it's hard to tell what you're looking at. It just kind of looks like a pile of dirt. But if you look closer, you can see what it is. It's a group of fire ants. When water flooded a fire ant hill, they formed a raft out of their bodies so they can float on the surface of the water until the water level goes back down. Then they'll set up a new colony wherever they end up. By living in a group, ants get protection from predators, more food to eat, and they're better able to survive when the environment changes. There are plenty of animals that don't live in groups. But for the animals that do, it's not just because it's a nice thing to have others around. It actually helps those animals survive. Keep an eye out for animals around you and try to figure out which animals live in groups. How does that help them survive? Have fun, and stay curious.