mystery science

Lesson: “What will the weather be like on your birthday?”

VIDEO TRANSCRIPT

EXPLORATION VIDEO 1

Hi, it's Doug! When I was a kid, I loved to play outside. I used to even have my birthday party outside. It would be hot and sunny, so I could invite my friends to go swimming in the pool. You see, my birthday is in the summer. Near Chicago, where I grew up, it's in the summer that we had hot, sunny weather—great for playing outside and swimming in a pool. Now, sure, sometimes there might be a storm or rain shower on my birthday, but at least I knew that it would never snow on my birthday. It couldn't get that cold, because my birthday happens in the summer. Have you noticed this about the weather? The weather changes depending on the time of year it is. And by that, I mean depending on what month it is. It's what we call the four seasons. I got curious about what happens during the seasons where I live, so I decided to go outside and draw pictures of what I saw every season. I went out around my birthday and drew a picture of my yard, like this. Then, every few months, when it was the next season, I went out again and drew what I saw from the same spot. And I did this again and again until I had one drawing for each of the four seasons. I still have the drawings. But there's a problem. I dropped them on the floor. Now they're all mixed up! Can you put them in order?

ACTIVITY INTRODUCTION VIDEO

You're going to do an activity where you and a partner will work together to see if you can put my drawings of the seasons in order. To do this activity, you're going to need to be a science detective. Look for clues in each drawing in order to figure out what season it might be. I'll show you how to start, step by step.

ACTIVITY STEP 1

Find a partner and sit at a table together.

ACTIVITY STEP 2

Get these supplies for each group.

ACTIVITY STEP 3

Cut along the dotted line on the handout. You can do one sheet and your partner can do the other. When you're done, you'll have four pictures.

ACTIVITY STEP 4

With your partner, find clues to figure out which picture is winter.

ACTIVITY STEP 5

Put winter here. Then you have to figure out what comes next. You have to use the clues you see.

ACTIVITY STEP 6

Discuss these questions. Then watch the final video.

WRAP-UP VIDEO

Were you able to figure out which order to put my drawings? I hope you were. Let me show you what order I came up with. I started with winter. I was able to spot winter right away since it's the coldest season. In winter where I grew up, it snows. I noticed this card showed snowflakes falling from the sky and snow on the ground. There's even a snowman here. And you might have noticed other clues too. But how can I figure out which drawing comes after winter? That was a little trickier to figure out. I had to think about how the things I drew might have changed through the seasons. Here's one important clue: how a tree changes through the seasons. You see, in winter, at least where I grew up, the trees have no leaves. We saw that in the winter drawing. That tree had no leaves. But there's also a drawing where that tree was full of leaves. There's another drawing where the leaves are falling off. And there's a fourth drawing where the leaves are just beginning to grow. Aha. So you see, you can use the tree as a clue to put the seasons in the right order. That means the drawing that should come after winter is this one, the spring season — the one where the leaves are just beginning to grow. There were other clues too. It makes sense that this drawing comes after winter because, in spring, the weather is just starting to get warmer. Not hot like summer, just warmer. So you might take off your jacket. Since it's warmer, the winter snow also begins to melt. Hey, did you notice, there's a melted snowman right here? That's another clue that spring comes after winter. You might also have noticed that it's raining. Where I grew up, it rains a lot in the spring, and that helps these little

flowers to start coming up right here. OK, so what comes after spring? Next up is summer. That's the season when the tree is now full of leaves. And there were other clues too. You might have noticed how there were different flowers. Or how now it's not just warm, it's hot. This person has ice cream to keep cool, and is wearing shorts and a tank top. And look, there's even a pool next to this person. OK, so what comes last? Well, finally, it's this drawing. The season that shows what we call autumn. Or, some people call it fall. You can choose which name you'd like to call it. Let's look at it more closely. Did you notice the tree starting to drop its leaves? That makes sense. This is the season that comes right before winter, when the trees are going to have no leaves. So they have to drop their leaves first. That's actually why some people call this season fall — it's when the leaves fall off the trees, you see? There were some other clues too. It's starting to get cooler. Not cold, just cooler than summer. So you'd probably need a jacket, but no gloves or mittens yet. So fall, or autumn, was the last drawing. In order, the seasons went: winter, spring, summer, and autumn. But now, what comes after autumn? Think about this: You lined up all the seasons in order, but when you get to that last season, autumn, it doesn't just end. The seasons actually start back over again, don't they? They go winter, spring, summer, autumn. Then winter again, spring, summer, autumn. Then winter again. It repeats over and over. So, instead of leaving the seasons in a row like this and keep looping around, I decided it would make even more sense if we put them in a circle, like this. That way we'll show how the seasons repeat. Winter, spring, summer, autumn. And then winter again. Around in a circle. I call this a circle of seasons. I can even put a little birthday cake right here because summer is the season when my birthday happens. You can do this too. There's a circle of seasons that you can print and hang on the wall and color. What season is your birthday? Put a birthday cake by it for everyone to see. Stay curious, and see you next Mystery!