mystery science

# Lesson : “How many different kinds of weather are there?”

## VIDEO TRANSCRIPT

### EXPLORATION VIDEO 1

Hi, it's Doug. When I was growing up, my grandfather and I sat on the porch together and watched a thunderstorm. It was really exciting. That was when I started learning to be a weather watcher. A weather watcher is someone who pays attention to the weather because there are so many interesting things to notice. I started watching the weather because of the thunderstorm, but that was just the beginning. Even when it's not storming, there's so much more to see than most people realize. "Like the clouds," Grandpa said. If you weren't a weather watcher, you might say, "Ah, clouds are just clouds." But no, when you look carefully, you'll see that not all clouds look the same. Clouds can be very different. There are puffy clouds and there are flat clouds. There are even clouds shaped like giant mushrooms, and lots of other kinds too. I'd never noticed that about clouds before. "Well, it's not just clouds either," Grandpa said. “Just now as the storm is rolling in, you're seeing how the wind can change. And how the air can start to feel hotter or cooler.” My grandpa taught me to become a weather watcher. Anyone can be one. You can be one too. So that's my story about the weather. Now, I have a question for you. What's the most interesting weather you've noticed?

## EXPLORATION VIDEO 2

If you're going to be a weather watcher, it's not enough to just say, "Oh, it's probably sunny outside," or, "Oh, I guess it's cold outside." You've got to go look. The best is when you can actually go outside to look. But even when you can't get outside, you can at least look out a window. When you do this, here's something really important to notice about the weather: There's more than one part to the weather. I'm going to show you some pictures of different weather, and in each picture, I want you to see how many parts of the weather you can notice. Like, look at this picture. If you looked outside your window and you saw this, and then someone said, "Hey, what's the weather like today?"—what would you say?

## EXPLORATION VIDEO 3

You'd probably notice this, right? You'd say, it's sunny. That's definitely one part of the weather, looking up and seeing what's in the sky. Are there lots of clouds, or is it mostly sunny? But this isn't the only thing to notice about the weather. Look here. Did you notice this? This boy is wearing a t-shirt and shorts. That tells you something else about the weather, doesn't it? That it's warm out. The air feels warm. So those are two things that weather watchers look for. They figure out what's in the sky, like if it's sunny or cloudy, and they figure out the temperature, how warm or cold it is, like if people are wearing short sleeves and shorts. So, here the weather was sunny and the temperature was warm. Let's try another photo, though. Check out this one. What's the weather like here?

## EXPLORATION VIDEO 4

Did you say it was cold? Yeah, you probably noticed the snow there in the background. And what's this person wearing? Coat, pants, gloves—but don't forget, that's just one part of the weather. It's also sunny, you can't forget that. Hey, just because it's sunny out doesn't mean it has to be warm. You can see here it can be sunny and cold. Okay, so is that all there is to the weather, those two parts, what's in the sky and what the temperature is like? Definitely not. What would you say the weather is like here? Remember, look for the two things we talked about, and can you think of anything else?

## EXPLORATION VIDEO 5

What did you say? Right away, you probably noticed that it's a bit cloudy. But the temperature is also cool. Now, how could you tell that? By what this person is wearing. They have on a jacket. And did you notice anything else? Well, you might've noticed that the flag on the flagpole is blowing. It's windy. There's even another clue. Look here. The grass is bending in the wind. So you see, there are at least three parts to the weather. There's what's going on in the sky. There's the temperature, how hot or cold it is. And there's how windy it is. Okay. Three parts of the weather. Is there anything else? Well, yes, there's one more part. Describe what weather you see in this picture.

## EXPLORATION VIDEO 6

It's raining, isn't it? We can't forget about that. That's the fourth part to the weather, if there's any rain falling from the clouds. And you might know that if it gets really cold outside, instead of rain falling from the clouds, you get snow that falls. And if there's no rain and no snow, then we just

call that dry. So, to be a weather watcher, it means paying attention to all four parts of the weather. Can you remember all four parts? Go ahead and practice now! Describe what weather you see in this picture.

## ACTIVITY INTRODUCTION VIDEO

In today's activity, you're going to be a weather watcher. First, you'll *observe* today's weather. That means carefully looking at it. And you'll do that by looking out the window or going outside. Then, you'll draw a picture to show exactly what the weather is like. Drawing pictures of the weather is not just an activity for kids: it's something that real weather-watching scientists do. One of the first weather-watching scientists was named Luke Howard, and he painted pictures of the weather more than 200 years ago. People can look at his paintings today and know what the weather was like on the day that he painted them. To draw a picture like a weather-watching scientist, you have to pay really close attention to what you see outside. Then, you draw what you see. That means paying attention to what the sky looks like and drawing that, and paying attention to what you wear outside to show how warm or cool it is. You also want to draw to show if it's windy and to show if it's dry, or raining, or snowing. Now, here in this drawing, you can see that it was dry outside. Are you ready to make a weather drawing? I'll walk you through what to do, step by step.

## ACTIVITY STEP 1

Get your supplies. If you draw outside, it's helpful to have a clipboard. When you're done with this step, click the arrow on the right.

## ACTIVITY STEP 2

Write your name and the date at the top of your paper.

## ACTIVITY STEP 3

Now, it's time to be a weather watcher. Go outside or sit by a window and draw a picture to show today's weather. Don't forget—when you draw, look for all four parts of the weather. That means paying attention to what's in the sky, how warm or cool it is, is it windy, and is it raining or snowing.

## ACTIVITY STEP 4

When you're all done, put your picture somewhere safe. When the weather changes, you can draw another picture. Then you can look at both pictures to see how the weather changed.

Have fun being a weather watcher, and stay curious!