mystery science

Grades K-5
Mini-Lesson: “What does a scientist do?”

VIDEO TRANSCRIPT

Hi, it's Jay! I love being a scientist, but I didn't always know that I wanted to be a scientist or even that I liked science. When I was a kid, I knew I loved exploring and building things, but I didn't know if the things I liked to do had anything in common with what scientists do. Someone named Leela has a question about scientists. Let's give Leela a call now.

[Video Call]

- Hi, Jay!

- Hi, Leela!

- I have a question for you. What does a scientist do?

- That is a great question.

There are lots of different kinds of science and lots of different kinds of scientists. There are scientists who explore what lives at the deep, dark bottom of the ocean, and scientists who look for lovely new scents for perfume, scientists who launch rockets into outer space, and scientists who study volcano explosions. But whether they're working in a laboratory, in a forest, or on the moon, all scientists do a lot of the same things. But what are those things? What do scientists actually do? I wonder what you think.

It's funny. There's not really a perfect word for what scientists do. Think about it. A runner is someone who runs, right? And a singer is someone who sings. And a teacher, teaches. And a

scientist—*sciences*? That's not really a word. But what if it was? What if we call what scientists do *sciencing*? What would it mean to science?

You've probably seen pretend scientists in movies or TV shows. Maybe you've even seen a scientist in real life. But no matter what you've seen, you've also done many of the things scientists do. In fact, I bet you've already *sciencing* today.

Let's think about your day so far. What have you done? Well, you woke up for starters. Maybe the first time you opened your eyes, you noticed light coming in through a window and wondered why it was so bright. Maybe you heard a noise outside and wondered what was going on out there. Maybe you smelled something cooking, and wondered if you could pick out the ingredients just from the smell. Maybe you felt a warm breeze from the window and wondered if it would be as hot today as it was yesterday.

In science, the things we notice about the world around us are called observations. Making observations and asking questions are two things all scientists do. Every time you notice something or wonder about something, you are *sciencing*. By noting and wondering about the things you could see, hear, smell, touch, and taste when you first woke up, you were *sciencing* before you even got out of bed. And you'll keep *sciencing* throughout your day.

Let's say later you go to the playground. Maybe today you see a classmate sliding really fast down the slide. You wonder, how can I slide faster too? Maybe you don't stop there. Maybe you start trying different things to see if they make you go faster. You try once with your arms and legs stretched out. You try again laying down. You try again with your feet in the air. Each time you pay attention to how fast you go.

Or say they're serving pizza at the cafeteria today. Maybe you usually eat pizza the same way. Cheesy end first, then crust. But today you wonder would pizza still taste the same if I ate it another way? Maybe you try taking a bite of the crust first. Then, the cheesy part. Maybe you try folding the pizza in half before you bite into it. Maybe you try cutting it with a knife and a fork. As you take each bite, you notice what's different.

You already know that you're *sciencing* by wondering and noticing, but scientists don't just observe and ask questions, we also search for answers. When you try or test different things to see if anything changes, that's called doing an experiment. Experiments are one way scientists search for the answers to their questions. Just like you might test different ways of going down a slide to see which one will get you to the bottom fastest, scientists test different shaped rockets to see which will fly to Mars the fastest.

Eating pizza backward might seem silly, but trying unusual experiments is exactly how scientists answer unusual questions. Like, do dolphins recognize themselves in a mirror? What do far-off planets smell like? And will people try harder if they dress up like Batman while they work? Experimenting is one way scientists make discoveries—whether it's discovering how fast a dinosaur could run, or when a volcano will explode, or what pizza tastes like off a fork.

So you've had a busy day *sciencing* already. But there's more. While you were getting ready for school, playing on the playground, or eating lunch, you probably weren't alone. Maybe this morning you asked a family member what they thought the weather would be like. Maybe you told a classmate what you learned about the slide, so they could slide faster. Maybe you and a friend both decided to eat your pizza backward.

When you share what you're curious about with others, you're *sciencing*. All scientists share their discoveries and questions. By sharing what they know, they help others learn, and by sharing what they still don't know, scientists inspire others to search for answers.

So, what do scientists do? Well, we make observations and ask questions. We search for answers to our questions by doing experiments, and we share our discoveries and our questions with others. In other words, all you have to do to be a scientist is be curious.

Have you *sciencied* today? How will you *science* tomorrow?

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