mystery science

Grades K-5
Mini-Lesson: “What would it be like to live on the Moon?”

VIDEO TRANSCRIPT

Hi, it's Doug! I've got my globe of the Moon here. I've always dreamt of going to the Moon. When I was growing up, it hadn't been that long since human beings had actually landed on the Moon. I remember seeing old footage of NASA astronauts as they landed on its surface, even seeing video from one of their missions, where they took a car up to the Moon and drove it around. Look at that. I would love to do something like this.

Someone named Bobby has a question about the Moon. Let's give him a call now.

[Video Call]
- Hi, Doug!
- Hi, Bobby!
- I have a question for you. What would it be like to live on the Moon?
- That's a great question.

Going to the Moon was something I always dreamed about. But we actually stopped going to the Moon even before I was born. 1972 was the last year anyone went. Now, it's getting to be a long time since any human being has been there.

But there's new hope. A rocket company called SpaceX has announced their plans to send the first tourist to the Moon, someone who's going, not because he's a trained astronaut on a science mission, but just as a vacation, a visit to see what it's like. His name is Yusaka

Maezawa. He won't actually land on the Moon; he'll just get to circle around it. But still, it'll be an amazing trip.

Think of the views he'll be able to see, looking down and seeing the Moon's craters up close, looking up and watching the Earth rise in the distance. It'll be incredible. Other rocket companies have plans in the future to even build some kind of small city or colony on the Moon. More and more, it seems like it might be possible that in your life, you could get a chance to go, maybe even live, on the Moon.

What would that be like?

Now would be a good time to pause the video and discuss.

Okay. You ready?

Living on the Moon would be unlike any experience you could have here on Earth. The longest any NASA astronaut stayed on the Moon was three days, but even for just that short a stay, they had to constantly wear a spacesuit when walking around. That's because the Moon has no air. So if you were going to live there, you might have to live in a house like this and keep the inside of it filled with air.

The views out your window would be so strange because, with no air, that means the sky is as black as outer space, even when the Sun is out. If you did want to go outside, you'd need a spacesuit, because not only would you need to keep a tank of oxygen with you, but the spacesuit would protect you from the boiling hot temperature of the Sun's rays. When it's

daytime on the Moon, astronauts found out that the temperature on the surface reaches over 200 degrees. That's as hot as an oven.

Spacesuits are made of a material that's similar to an oven mitt you might find in a kitchen. They protect you from extreme heat. It would probably be a pain to put on a spacesuit every time you wanted to go outside. But it'd be worth it. Check out this video of NASA astronauts when they were on the Moon. You see, the Moon has less gravity than the Earth, about six times less gravity. So there's enough gravity to keep you from floating off into space, but when you walk, you bounce around. This is them trying to walk, and they look kind of like bunnies hopping.

Less gravity also means something really weird. It would be easier to pick up heavy things. They don't pull you down so much, so if you wanted to, you could pick up a rock like this big and throw it with one hand.

So in summary, living on the Moon would be totally unlike living on Earth. New announcements about space travel mean there's a real chance that you could actually get to visit the Moon one day. Would you go?

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