mystery science

Grades K-5
Mini-Lesson: “How many people are in the world?”

VIDEO TRANSCRIPT

VIDEO 1

Hi, it's Doug! This is one of my favorite parks in the city of San Francisco, where I live. On weekends, sometimes there are hundreds, even thousands, of people here. But take a look at this photo. It was taken from the same spot about 100 years ago. Even though San Francisco was still a big city back then, you can see there were fewer people.

Someone named Benjamin has a question about the number of people in the world. Let's give him a call now.

[Video Call]
- Hi, Doug!
- Hi, Benjamin!
- I have a question for you. How many people are in the whole world?
- That's a great question.

So there's a group of people whose job it is to keep track of how many human beings are on the Earth. According to them, they think the total number of people in the world, what we call the world population, is a huge number. It's not a number in the thousands, not even the millions. It's a number in the billions. The total world population is thought to be almost eight billion people.

Oh, that's a huge number. That number is so big, it's hard to even imagine just how many people that is. Let's think about this. You've probably counted to 100 before, right? And it feels like it takes a while to do that. It probably takes you at least a few minutes to sit there and count all the way to 100.

What about one million? That's a much bigger number. If you were going to count to one million, now we're talking about it taking not just a few minutes, but an entire month. The number of people in the world, though, is almost eight billion. How long do you think it would take to count to a number that big?

Before I tell you, it might be fun for you to try to guess. Imagine every day showing up to school and all you do, all day long, is count—one, two, three, four. How long do you think it would take before you got to eight billion? Take a guess.

VIDEO 2

Okay, here we go. If you wanted to count to the number eight billion—are you ready for this—it would take you over 200 years to do it. Think about that. That means if you know a grandma or a grandpa, even if they started counting when they were in kindergarten, they still wouldn't have gotten to eight billion yet. They'd still be counting.

Every time you'd see them, they'd go, "Oh, hey there. Hang on. Still counting. 1,400,090,002, 1,400,090,003." That's how big the number eight billion is.

But how do we even know that there are eight billion people on Earth? I mean, it's not like we can go out and just count every single person. Actually, we try to. You see, every few years,

each country on Earth does something called a census. They send people out to actually try to count everyone who lives in that country. Then we add up all those numbers.

Many countries have people who actually walk around and knock on each person's door to find out how many people live in each house. I can remember this when I was a kid. Someone from the census came and rang our doorbell because I remember my mom talking to them. In the United States, the next big census will be in the year 2020, so be listening for your doorbell then. Maybe you'll get to see them.

I make all of this sound so easy, but one of the things that make keeping track of the world's population so hard is that the number of people is constantly getting bigger. Think about it. Babies are born every day. Even just in the one or two minutes that this episode has been playing, about 500 babies have been born. Isn't that incredible?

Just as I said in that last sentence, 15 more babies were born. You might worry that with the population growing so quickly, soon there will be too many people. You're not alone in thinking that. This is something that a lot of very smart people have worried about for a long time.

Even 200 years ago, a thinker named Thomas Malthus wrote a book about how much the population was growing. In his book, he predicted that there would soon be so many people on Earth, we simply would not be able to grow enough food for everyone to eat. But so far, at least, that hasn't happened.

Part of the reason for that is because, as more people were born, more and more people grew up to become scientists and engineers. These scientists and engineers figured out new ways to

grow more food. So, in a funny way, the world having more and more people has led to us having more and more food.

That said, some people worry that our population can't keep growing like this forever. Won't we eventually run out of space? And what about all of the other things people use and need besides just food?

One thing is for sure. If the number of human beings on Earth is going to keep going up, we're going to need to keep finding new ways to make food and solve lots of other problems. Maybe you'll be someone who helps to figure these things out when you grow up.

So in summary, we think there are almost eight billion people in the world today. We get that number thanks mostly to each country's census, the people who go out and try to count everyone alive.

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