mystery science

Grades K-5
Mini-Lesson: “What’s the biggest tree in the world?”

VIDEO TRANSCRIPT

VIDEO 1

Hi, it's Doug! You've seen pine cones before, right? Here in California in the mountains, you can find pine cones on the ground like this. Kind of makes you wonder: How big is the pine tree that something like this comes from? There are some incredibly huge trees out there in the world. Someone named Alejandro has a question about this. Let's give them a call now.

[Video Call]

- Hi, Doug!

- Hi, Alejandro!

- I have a question for you. What's the biggest tree in the world?

- That's a great question.

When I was a little boy, I think one of the first stories a grownup ever read to me was the story of Jack and the Beanstalk. Jack finds some magic beans that grow into a giant beanstalk that he can climb high up into the sky. I remember thinking, "Wow, that would be so cool!" Or I also remember seeing cartoons that had trees so big around that people could live inside of them. Trees in real life are definitely something we think of as being big and tall, but what's the biggest? Is there a real-life version of these cartoons and fairytales? Now, for a question like “What's the biggest?” for anything, I suppose you or I could always just go search the internet or look it up in a book or maybe ask an adult who knows. But if you just found the answer and that

was it, that would leave out one of the best parts, which is how do we even know the answer to this question? It's not like you can just go up to a tree and ask it, "Hey, do you happen to know what the biggest tree in the world is?" Now, you might have seen some big trees near where you live, but there are trees growing on almost every continent on Earth. So in order to figure out which one is the biggest, we, human beings, had to go out and explore all around the world. It can be tempting to think trees are just trees. They're all pretty similar. They've got bark. They've got leaves. They grow tall. Cool. But as people have explored all over the Earth, one of the most surprising things we found out is just how different trees can be and some of them are amazing. This one called Rainbow Eucalyptus from Southeast Asia has some of the most colorful bark of any tree in the world or this one, called a Kapok tree, you wouldn't want to climb this, look at the thorns growing on the side of that thing. And check out this tree called a Jabuticaba tree from Brazil in South America. It grows these shiny black fruits not just on its branches but all up and down its trunk. It's so weird. But while all of these trees are amazing, none of them are anywhere close to making the list of what we could consider some of the biggest trees in the world. Now for that, we have to consider trees more like this, the Baobab tree of Africa. Look at that thing. It doesn't even look real, but it is. Or check out this, the Sitka Spruce. Lots of these trees grow along the Western Coast of Canada. Now, trees like these are trees that are big enough, you could live inside of one. And in old ones that have gotten hollowed out over time, some people have done just that. Look at this entire room someone created inside of a Sitka Spruce. But now wait a second, because here's a tree in New Zealand, called a Kauri tree. Which one looks bigger to you? A Baobab or a Kauri tree? Seeing big trees like this side by side makes you realize when we talk about what's the biggest tree, we could mean different things. What are some of the different ways someone could mean biggest when they're talking about the biggest tree in the world?

VIDEO 2

Well, seeing some of these examples helps us realize it matters what we mean when we say the biggest tree in the world. We could mean the tree that's the biggest around like the size of its trunk. We could mean the tallest tree in the world. Or we could even mean the heaviest tree in the world. And it turns out there is not one tree that holds the record for all of these. Different kinds of trees hold the record for each. Baobabs and even Kauri trees are definitely big around, but they're not the biggest. That award goes to this tree in Mexico, a tree named El Tule found in the state of Oaxaca. It's a type of tree called a Cypress. From one side of its trunk to the other, this tree's trunk is the length of an entire school bus. So what about the heaviest and tallest trees in the world? Well, even though they're two different kinds of trees, they're both found in the same place, the US State of California. In little parts spread around California, you can find entire forests of these trees growing. There are even two different national parks. One of them, Sequoia National Park, is home to the heaviest trees in the world, the Giant Sequoia. This photo gives you a sense of just how huge a Sequoia tree is. Not only are these trees incredibly tall, but they're also incredibly wide which is what makes them so heavy. The largest Sequoia tree of them all, a tree people have named General Sherman, currently holds the world's record for being the largest living organism on Earth. And that leaves, last but not least, the tallest trees in the world. These are Redwoods. They're a cousin of the Sequoia. They look similar. You can even see they get pretty wide. This Redwood tree in the town of Leggett, California is so wide that an entire car can drive through it. This tunnel was carved into the tree about 100 years ago. Luckily, the tree is still alive, but carving tunnels like this isn't something people do anymore as it could harm the tree. Now, while Redwood trees don't get quite as wide across as Sequoias, they do get taller. The tallest tree in the world found in Redwood National Park is 380 feet tall.

This gives you a sense of just how big that is. So in summary, to figure out what the biggest tree in the world is, we have to go out and explore. There are amazing huge trees found all over the world. The tallest and heaviest ones known are the Redwoods and Sequoias from California, USA. That's all for this week's question. Thanks, Alejandro, for asking it!