mystery science

Grades K-5
Mini-Lesson: “Where does chocolate come from?”

VIDEO TRANSCRIPT

Hi, it's Doug! There are so many different kinds of chocolate—chocolate chips, chocolate coins, chocolate powder. There are even giant chocolate bars. And, check this out—liquid chocolate that can flow like in a fountain. I'm going to turn it on. Ready? And then once it starts flowing we can dip things in it… mmm.

Someone named Miyuri has a question for us about chocolate. Let's give her a call now.

[Video Call]
- Hi, Doug!
- Hi, Miyuri!
- I have a question for you. Where does chocolate come from?
- That's a great question.

Today everyone knows about chocolate. I mean, there are whole aisles of chocolatey things that you can buy at the grocery store. But chocolate hasn't always been around.

From reading about the history of chocolate, we know that there was a time when the only people who knew about chocolate were the people who lived here, in Central America. The people living here were some of the first people to discover chocolate.

Now, how do you think they do that? How do you think chocolate is made?

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

Okay. You ready?

So how is chocolate made? How was it discovered? I mean, it's not like chocolate just grows on trees. Well, actually chocolate does come from a tree. Not as candy bars growing on the branches, but from trees that have these really weird-looking fruits that grow on the tree trunks, like this.

You can see that whatever these fruits are, they're colorful and they're shaped kind of like footballs. Here's one of these fruits up close. It's called a cacao fruit and it grows in the rainforests of Central America.

One of the first groups of people to use cacao fruits to make chocolate were a people known as the ancient Aztecs. How do they make it? You might wonder, “Does it have something to do with what's inside of that cacao fruit? Like, maybe if you cut open a cacao fruit, there's something chocolatey in there.”

But no, it's actually weirder than that. Inside of a cacao fruit actually looks like this. You'll find—look at that—a whole bunch of white-colored slimy stuff. And then inside of that white slimy stuff, you'll find a brown seed. That's the part that's needed for making chocolate.
The ancient Aztecs knew that you could do something special with those brown seeds. They would put them into piles and let them rot. But not for too long, before the seeds could spoil, then they'd put them in the sun to dry. Then they'd grind it all up into a powder, like by mashing

them with a stone. The Aztecs would make a drink from this powder. A drink that they called *xocoatl*.

Does that sound kind of familiar? I'll say it again but a little differently, xocoatl. It's where our word chocolate comes from. Our word chocolate is borrowed from the ancient Aztec language.

So the very first chocolate wasn't chocolate you eat, it was chocolate you drink.

Now, here's the thing, you might think that this xocoatl drink would maybe taste like hot chocolate or maybe like sweet chocolate syrup, but it doesn't. It actually tastes more like dark chocolate. The kind of chocolate that adults usually like to eat.

Have you ever tried dark chocolate? This is from a commercial where kids tried really dark chocolate for the first time. You see, dark chocolate is not sweet—it's bitter. It might make you pucker your lips and frown. You'd probably have the same reaction to the Aztec drink.

That's because the chocolate you're used to eating has a special ingredient in it—one ingredient that the ancient Aztecs didn't have: this—sugar! Sugar is the key ingredient for making chocolate taste sweet instead of tasting bitter. The more sugar you add, the sweeter the chocolate will taste.

After people started adding sugar to chocolate, that's when chocolate started getting traded all around the world. But not everyone wanted to drink their chocolate, so chocolate makers invented a new way of making chocolate so that it was hard and solid, rather than liquid. That way people could eat their chocolate too, and not just drink it.

So in summary, chocolate comes from the fruits of a tree, called cacao trees, that grow in the rainforest. In ancient times it was people from Central America, like the ancient Aztecs, who would turn the seeds of cacao fruit into a chocolatey drink. But it tasted very bitter. It was only later, once people added sugar to chocolate, that it became a popular sweet treat enjoyed all over the world.

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