mystery science

Grades K-5
Mini-Lesson: “Were dragons ever real?”

VIDEO TRANSCRIPT

VIDEO 1

Hi, it's Doug! I couldn't believe this toy dragon I saw the other day. I thought, "Is that real fire?" Turns out it's a little trick. It's spraying water with a red light behind it.

Someone named Darion has a question about dragons. Let's give him a call now.

[Video Call]
- Hi, Doug!
- Hi, Darion!
- I have a question for you. Were dragons ever real?
- That's a great question.

Dragons are something depicted in all kinds of stories and movies. Whether the dragon Harry Potter faces in *The Goblet of Fire*, *Pete's Dragon*, or *How to Train Your Dragon*. Maybe you have a favorite dragon story of your own. But it seems pretty clear that dragons don't exist today. I mean, if they did, you would probably have seen one by now, right? Like in a zoo, for example, or at least in nature videos about real-life wild animals.

Scientists have explored almost every corner of the globe, from the highest mountains to the farthest islands, and not one of them has ever discovered a real-life dragon. Okay, so they don't

exist today. But could dragons have been real? Could they have been something that used to live on Earth?

Maybe you're thinking, "No way. Dragons are only something we made up in stories we tell." But consider this: it isn't just today that we tell stories of dragons. People have been telling stories of dragons for thousands of years.

Like if you've heard of the ancient Greeks and Romans, you might have heard their stories of dragons, like the Hydra killed by Hercules. Or the ancient Norse people, like the Vikings, also have stories of animals like dragons, and they would carve images of dragons' heads onto their boats.

And these are just stories of ancient cultures in Europe. What's really interesting—stories of dragons come from ancient cultures all around the world, not just one place. In many cultures in Asia, dragons are featured in lots of stories. In Japan, for example, a story was told that the first ruler of Japan was supposedly the grandson of a dragon. So symbols of dragons were placed on clothing, buildings, vases, and other things as symbols of the rulers' power.

How is it possible that people from completely different places on opposite sides of the world would all have ancient stories of dragons? What do you think?

VIDEO 2

Well, it's tempting to think maybe dragons were real, but just a long time ago. There's another explanation, though. Ancient people all around the world might have discovered things like these—giant fossil reptile bones that they found in the ground. If they noticed these, it probably

would have made them really wonder. You see, they'd never have seen the bones of an animal so large before.

We know today that when we find giant fossil reptile bones, it's usually those of dinosaurs. But you see, ancient people didn't have an understanding of dinosaurs yet. They didn't realize that dinosaurs had gone extinct or even existed. People weren't alive at the same time as dinosaurs. But if some of these ancient people happened to discover fossil dinosaur bones and then tried to imagine what these animals might have looked like in real life, it's possible that this is how stories of dragons began.

This is just one idea. There are other explanations for how the idea of dragons might have started. But even though dragons were not ever something real, dinosaurs were. And when you stop and think about it, dinosaurs were probably not that different from how we depict dragons.

While we don't know of any dinosaurs that could breathe fire, we do find fossils of prehistoric beasts that could fly. Pterosaurs, while technically not dinosaurs, they were a type of prehistoric reptile. And some of them were huge. Just like dragons. In terms of their huge size and the way that they probably looked, both dinosaurs and pterosaurs might have been the closest thing that planet Earth has ever had to real-life dragons.

But there are lots of smaller animals alive today which have traits that do resemble those of dragons. For example, this lizard doesn't fly, but it glides from tree to tree. In honor of dragons, we even call it a dragon—*Draco volans*, the flying dragon. It doesn't breathe fire, but in its appearance and its ability to glide, it's fun to think of it as being like a mini dragon.

And then there's this, too—the largest lizard in the world, the Komodo. But in honor of dragons, its full name is the Komodo dragon because it kind of looks like a dragon.

And while there are no animals that we know of that can do anything even remotely close to fire breathing, there is this. It's called a bombardier beetle. It has the ability to shoot a hot liquid as one of its defenses. Watch as this ant gets close to it. You'll see it shoot it right there. This liquid gets so hot that it burns. This guy got a bombardier beetle stuck in his bicycle helmet, and he said it felt like he had hot lava on his skin.

So in summary, dragons were never real, at least not the kind depicted in stories. But it's possible that stories of dragons were ancient people's way of making sense of dinosaur fossils. Either way, real-world animals once lived, and do live today, which are every bit as amazing and interesting as dragons.

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