mystery science

Grades K-5
Mini-Lesson: “What was the biggest dinosaur?”

VIDEO TRANSCRIPT

VIDEO 1

Hey, it's Jay. Check out this dinosaur skeleton. It's so big. Imagine what it would feel like to stand next to it. Someone named Finn has a question about dinos like these. Let's call Finn now.

[Video Call]

- Hi, Jay.
- Hi, Finn.
- I have a question for you. What was the biggest dinosaur?
- That's a great question.

To figure out which dinosaur is the biggest, we first have to think about what we mean by biggest. Is the biggest dinosaur the tallest? The heaviest? The longest from the top of her head to the tip of her tail? There's another problem, too. How do we even figure out how big dinosaurs were? Most dinos died off a long time ago. It's not like we can go to a zoo and measure a living dinosaur with a ruler. To know how big a dino was, we usually rely on clues we get from fossils. Fossils are remains of animals from long ago. If you find a lot of bones from the same dino, that helps you understand how big their skeleton was. Even smaller fossils, like one single tooth, can help. Do you think this tooth would fit inside your head? Probably not. That

thing is huge. So it's likely that the dino that had this tooth had a big head, bigger than yours. Still, fossils can't tell us everything. They generally don't include soft body parts, things like skin, muscle, and fat. Those parts can add a lot to an animal's size. Plus, we usually only find fossils from one individual dino at a time. And we know living animals of the same kind can be really different sizes. Think about how big you are compared to a professional basketball player. That's a big difference. And you're both humans. Given all of this, we usually have to estimate, or make an educated guess, about how big any kind of dinosaur was. Still, even estimating, it's clear there were some big dinos out there. I'm curious, what kinds of dinosaurs have you seen before? What features made them stand out?

VIDEO 2

Let's take a look at some of the biggest dinosaurs out there. We'll start with a classic: Tyrannosaurus rex. In Latin, the word rex means king, and this sure looks like a king of dinosaurs. Scientists think some T. rexes were bigger than any animal on land today. Bigger even than an elephant. Look at these people next to a T. rex skeleton. I mean, what? That's enormous. Gotta be the biggest dino, right? Nope. Not even close. Actually, turns out the Tyrannosaurus rex wasn't even the biggest dinosaur that ate meat. That honor goes to Spinosaurus. Spinosaurus had a lot of similarities with modern-day crocodiles. They spent most of their time in the water. They used sharp teeth to snack on fish and possibly other animals from time to time. Spinosaurus' size gets a big boost from this huge thing on their back called a sail. But here's the thing: even though Spinosauruses were big, they weren't the tallest dinos.

To find a dino taller than a Spinosaurus or a T. rex, you have to leave the meat-eating dinosaurs behind and take a closer look at a dino like Sauroposeidon. Sauroposeidon is named after the ancient Greek god Poseidon. Poseidon was considered the god of the sea, but that's not why Sauroposeidon has his name. Poseidon was also called the god of earthquakes. He could make the earth shake whenever he wanted. Sauroposeidon is named after Poseidon because these dinos were so big, they could practically make the earth shake as they walked. Sauroposeidon also stands out among other dinos for their long necks. Their long, long, long necks. That neck helps Sauroposeidons reach their favorite food, leaves high up in the trees. That might sound familiar. That's how giraffes use their impressive necks today. Only, the Sauroposeidons' necks were much longer. Not two times as long, not three times as long, but more than four times longer than a giraffe's neck. But even these lengthy creatures don't qualify as the overall largest dinosaur out there. That dinosaur is…well, actually, it's a tie. It's a tie between these two dinos: Argentinosaurus and Patagotitan. They were both huge, and I mean huge, both easily over a hundred feet long and weighing over fifty tons. That's longer than a fire hose and heavier than a semi-truck. Fossil evidence suggests that either one of these animals could have been the biggest dinosaur to ever live. In fact, these two hulking giants are related. They both belong to a group of dinosaurs called titanosaurs. That's TITAN-osaur, like the word titanic, which means, you guessed it, huge. So, in summary, there are so many different kinds of dinosaurs that once walked the Earth, and some of them got really, really big. The biggest dinosaur was probably either Argentinosaurus or Patagotitan, but we don't know for sure yet. Fossils give us some information, but not all, and there's still so much left to discover. Enormous fossils could be lurking under the surface of the Earth right now, just waiting for someone to uncover them. That's all for this week's question. Thanks for asking, Finn.