mystery science

Grades K-5
Mini-Lesson: “Are killer whales really dangerous?”

VIDEO TRANSCRIPT

VIDEO 1

Hi, it's Danni! As an ocean expert, I've had the privilege of seeing some pretty awesome marine life. Like once, I was filming a video in Puget Sound, Washington, and I observed a pair of orcas in the distance. In case you don't know, orcas are what a lot of people call killer whales. The orcas stayed far away for a long time, just minding their own business. And then all of a sudden, one of them made a dash for our boat. It was coming super fast and I have to admit I was getting a little nervous. But then right at the last second, it twisted on its side and dove under our boat. But before it did, I could see one of its big eyes staring back at me before it disappeared. It was amazing. Orcas are my absolute favorite animals on the planet and they have been since I was six years old. Someone named Akash has a question about orcas. Let's give Akash a call now.

[Video Call]

- Hi, Danni!

- Hi, Akash!

- I have a question for you. Are killer whales really dangerous?

- Ooh, that's a great question.

With a nickname like killer whales, orcas can sound pretty dangerous. They're faster, they're stronger, and way bigger than us. They're almost as long and heavy as a school bus. Orcas are amazing hunters too. They hunt in groups called pods and they even plan out their attacks. They're such good hunters that no creature in the ocean wants to mess with them, not even sharks. In fact, there are stories of orcas hunting great white sharks and catching them easily. So if orcas are dangerous animals to things like sharks, they could be dangerous to humans too, right? But are they? Before I go on, I'm curious. What do you think? Do you think killer whales are dangerous to humans?

VIDEO 2

I'm not sure what you answered, but you have to admit, with all that size and power, orcas can be pretty intimidating. Just ask 12-year-old Ellis Miller. He came face to face with some orcas on vacation in Alaska a few years ago. There he was at the beach, just splashing around in some shallow water when an Orca started speeding toward him. The Orca got closer and closer, but then it just bumped him a little. Oh, and that's not all. After that, an entire pot of Orcas swam over to him. But after a while, one of them slapped its fin on the water as if to tell the family, hey, it's just a kid, and they all just swam off. So why do you think whales left the kid alone? Were they just not hungry? It may seem like that, but that's not really it. As far as we know, a whale has never eaten a human in the wild, not ever. I'm serious. Besides bumping, there's hardly any record of an Orca even biting a human in the ocean. Wow! But why is that? Do whales just want to be friends with humans? A lot of people used to think so. Hundreds of years ago, the First Nations people of Australia told stories of whales helping them as they fished. And some early sailors even told tales of whales protecting them from shark attacks while they were swimming.

But scientists are beginning to think that being friendly isn't really the reason why orcas don't attack humans that often. We can't talk to orcas, so we really don't know why they don't attack humans. They just don't seem to do it. So how do they know which things to attack, and which to leave alone? Hmm, it seems to have something to do with the way they've been taught by their parents and grandparents. When you were a baby, the grownups that took care of you probably taught you all sorts of things, like how to walk and talk, and what to eat and what not to eat. Well, Orca parents do the same thing. Orcas are incredibly intelligent marine mammals. They even have the ability to communicate amongst their pod and teach their kids. Check out these special orcas in Argentina. The grownup Orca is teaching its calf how to jump onto the beach to hunt seals. It's a pretty tricky thing to do without getting stuck on the sand. Orcas teach their babies all sorts of things, like what to eat. From an early age, they're taught to eat things like fish, and squid, and seals, and sea lions, but not humans. And since orcas haven't been taught to eat us, they pretty much just leave humans alone and stick to the foods they've been taught to hunt. And we're not the only ones they ignore. These orcas live in the northern part of the Pacific Ocean. Their environment is full of all kinds of fish, but the orcas leave most of them alone, except for this one, the Chinook salmon. Even though it would be way easier to hunt other fish that are easier to find, orcas almost always go for this one. Can you guess why? Yep, it's because those are the fish that their parents taught them to eat when they were young. I guess you could say that orcas are great at following their parents' and teachers' directions, like you. And for that reason, they've never hurt anyone in the wild, but that doesn't mean they've never hurt anyone at all. There have been a few times where orcas have hurt trainers when they've been taken from their homes in the ocean and put in zoos or aquatic parks. Scientists aren't totally sure why this happens. It might be that they were playing too rough. Humans are really small compared to orcas. So if an Orca plays rough with a trainer, that trainer might get

hurt. Or maybe it was because the orcas were scared or unhappy about being taken away from their pods and put in a tiny tank where they can't do all the things they used to do in the ocean. Whatever it was, it's clear that these orcas were behaving very differently from how orcas behave in the wild. Marine experts are still learning about these incredible animals, so we can better understand why they do the things that they do. So are killer whales dangerous to humans? They definitely could be. They're huge and powerful and amazing hunters, but because of the way they've been taught by their parents and grandparents, they almost always choose to leave humans alone when they're in the wild. That's all for this week's question. Thanks, Akash, for asking it!