mystery science

Grades K-5
Mini-Lesson: “Does my pet really love me?”

VIDEO TRANSCRIPT

VIDEO 1

Hi, it's Esther. I have a cat named Olive. She's the best. I love her so much. She's adorable and fierce and sometimes really funny. I do my best to take care of her because I really care about what happens to her. When I go away on trips, I miss her. I'm always glad to see her again when I come home. Someone named Amarianna has a question about pets. Let's call Amarianna now.

[Video Call]

- Hi, Esther!

- Hi, Amarianna!

- I have a question for you. Does my pet really love me?

- That's a great question.

A lot of people really love their pets, but do our pets love us? How can we tell? It would be great if we could just talk to our pets and ask them, “Do you love me?” But, of course, cats and dogs and fish and all the other animals people keep as pets, they can't talk. But even if they could talk, would they even understand the meaning of love? I mean, what is love anyway? Like, how do you even know when you feel love?

VIDEO 2

Love can be hard to define. There are so many different kinds of love. The love you have for your baby sister may be way different than the love you have for your soccer team or your new kitten. But a lot of those loving relationships may have some things in common. When you love someone, you feel a lot of care or affection for them. And there are probably some loving things you do for those you love. Like, take pets. You might take care of your pet by feeding them or brushing them or taking them to the vet. You might give them ear scratches or play with them. We do those things for our pets because we love them. We want them to be healthy and safe and happy. You want to get along with them and to get to spend time together. While we feel love on the inside, from the outside, you can tell we love our pets from what we do—from our behavior. And if you've spent much time around pets, you might have noticed that pets sometimes seem to do loving behaviors for their owners, too. For example, a pet might play with you. They might purr or wag their tail when you pet them. Sometimes, a pet will even run to greet you at the door when you come home. You might even notice that pets do some behaviors only for people and animals that they know well. Like, this cat is up on her owner's lap purring and blinking slowly. But when she meets a stranger, she's a bit more wary. She might even hide under the couch until the new person goes away. And these behaviors aren't just things that cats and dogs do. Many other animals seem to do loving behaviors, too, even wild animals. Like, check out these snow monkeys. They're grooming each other, picking bugs and little pieces of dirt out from each other's fur. Or see these otters? They're holding hands as they float in the water. How sweet is that? Okay. Take a look at these elephants. This baby elephant has been apart from her family for a while. Watch what happens when they're reunited. See? They're making noise and flapping their ears and huddling around her. Okay. But as sweet as it

is to see animals do these things, do these behaviors really show love? Or are there other reasons an animal might behave this way? Holding hands helps otters keep from floating away into the open ocean. That's important, but not necessarily about love and snuggles. My pet may seem happy to see me when I come home, but what if she's really just happy that I might feed her dinner soon? It is true that just because animals look like they're doing something loving doesn't mean they feel loving. And it's really hard to know exactly what's going on inside an animal's mind. But we can still get some clues. When humans look at or interact with someone we love, our brains release a chemical called oxytocin. So when a human stares into the eyes of their beloved pet dog, the amount of oxytocin in our bodies goes up. We know that dogs' brains have the chemical oxytocin, too. So scientists wondered: when a dog stares into the eyes of their owner, what happens inside their brain? Scientists collected a group of dogs and their owners and tested this out. They measured the level of oxytocin in both humans and pups. Then they had the owners pet and talk to their dogs for a while. Three minutes later, they tested their oxytocin levels again. For the humans, even after just three minutes, their oxytocin levels went up. And for dogs? *So did theirs*. Now, oxytocin levels alone don't tell us what a pet is really thinking and feeling. Something as big and complex as love is way more complicated than one chemical. But it might be a clue. It's possible that some of our pets feel at least some of the same stuff for us that we do for them. So, in summary, it's hard to define what love is or know for sure if animals feel it. However, many different kinds of animals do behaviors that seem loving. And we know that dogs release similar chemicals in their brains that humans do when we feel love. So if you're feeling the love for the pets in your life, good news: they probably are too. That's all for this week's question. Thanks for asking, Amarianna.