mystery science

# Grades K-5
# Mini-Lesson: “Why do penguins have wings if they can’t fly?”

## VIDEO TRANSCRIPT

Hi, it's Doug! When you think of a bird, you think of an animal that can fly. But you know, not all birds can fly. Like, for example, an ostrich. Now, I can't bring an ostrich in here with me, but I can bring in one of its eggs. This is an ostrich egg. Look how big it is, especially compared to something the size of an ordinary chicken egg.

Someone named Navani has a question about one of those other birds that can't fly—penguins. Let's give her a call now.

**[Video Call]**
- Hi, Doug!
- Hi, Navani!
- I have a question for you. Why do penguins have wings if they can’t fly?
- That's a great question.

Most birds are really good at flying. I mean, it's what birds are known for. But some birds can't fly, like penguins. You could search all around the world. You could look at every single penguin, and I promise, you'll never find a penguin doing this. It just doesn't happen. Penguins don't fly.

Even if a penguin flapped its wings as hard as it could, it still wouldn't be able to get off the ground.

Now, it might seem unusual that penguins even have wings. I mean, if they can't fly, what's the point? But ostriches are another kind of bird that can't fly, and they have wings, too.
Look—when each ostrich stands up, you see it? Those are its wings there.

Now, instead of flying, ostriches walk or run from place to place. For ostriches, it's their legs that are so important to them. Their wings hardly do anything at all.

So, just because an animal has a certain body part, doesn't mean that they use it. It's possible for animals to have body parts that aren't that useful to them, like wings are for an ostrich. But is that true for a penguin? Or is there something they use their wings for? What do you think? Do you have any idea what a penguin uses its wings for?

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

Okay. You ready?

When you watch penguins trying to get around, it's not obvious what they use their wings for. It's not for getting from place to place. Look, they just waddle around. In fact, this waddling around is so slow that sometimes it's actually faster for them to slide on their bellies.

But you see, this is just what they're like on *land*.

Penguins spend a lot of their time in the water too, and when you see what they're like underwater, you get a clue.

You can see, penguins look totally different under the water. Now you can see how they use their wings—it's for swimming around. They swim around like this to hunt for fish. So, penguins' wings may not be any good for flying in the air, like most birds' wings, but they're perfect for flying underwater. In other words, their wings are perfect for swimming.

In fact, penguins' wings look different than most birds' wings. Instead of bending or folding in the middle, penguins' wings are stiff and straight. And instead of having lots of long feathers that stick out of their wings to help them fly, penguins have these tiny little feathers that lay flat and smooth. The shape of a penguin wing is almost more like a paddle, the kind you'd use for a boat.

So in summary, penguins have wings, not for flying in the air, but for flying underwater. Penguins' wings are smooth and stiff, like paddles. They use their wings to swim and catch fish.

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