

Narrative Performance Task: Whales

Student Directions

Task:

Your class is studying about oceans and animals that live in these oceans. You are given three resources about whales.

*Read the sources carefully so you can **write a story** about a family that goes on vacation to a place right by the ocean. They go out on a boat ride and spot a huge creature coming out of the water. It's a whale! Tell the story of what happens when the family sees the whale.*

When writing your story, find ways to use information and details from the sources to improve your story.

Sources for Performance Task:

Source #1

Here is an article about whales.

Whales by Tamra Orr

King of the Sea

Deep under the surface of the ocean, a gentle giant swims through the water. Larger than many of the dinosaurs, the whale is the true king of the sea. Some species grow as long as 100 feet long. They can weigh more than 100 tons! Although there are many different types of whales, and they come in various sizes and colors, their bodies are all quite similar. They use flippers and tails to help push themselves through the water and keep their balance.



On the Surface and Below

Although many people think of whales as fish, they are actually warm-blooded mammals. They need air to breathe, so they have to rise to the surface of water to take a deep breath. Instead of using a nose or mouth, however, whales use a blowhole on the top of their heads. They take in air through the hole and straight into their lungs. They exhale the same way. Once whales take a few breaths, they dive back down, sometimes thousands of feet deep. Many of them can stay underwater for more than an hour before having to come back up and breathe again.

When it comes time to sleep, whales rest near the surface, so they can come to the top and breathe whenever needed. In order to do this, whales do something rather amazing. They only allow one side of their brain to sleep at a time! This way, they are aware of when they need to take another breath!

Whales come to the surface to do more than breathe, however. As big and heavy as they are, many of them

jump out of the water. This action is known as breaching. Why do they do it? Even the experts are not sure, but they have a number of theories. Many scientists think the mammals do it to shake the *barnacles and other growths off of their skin. Other ideas are that breaching is done to scare away predators or simply because it is a lot of fun!

The Search for Food

Whales live in deep ocean waters across the world. When summer arrives and the water begins to warm up, some species migrate, or move to colder waters in search of more food. How do they keep warm? Whales have built-in coats known as blubber under their skin. Blubber is a thick layer of fat and it not only keeps the mammals warm, but helps them float and gives them extra energy when it is hard to find enough to eat. In the winter, whales migrate to warmer water to have their young.

Whales are incredible creatures that live under the water, but come above it to breathe the air, jump, and play. They truly are the kings of the sea.

*barnacles: small crustaceans that attach themselves to other animals or objects

Sources Used

- a. WhaleFacts.org (2013). *Whale Facts for Kids*. Retrieved from <http://www.whalefacts.org/whale-facts-for-kids/>
- b. Bio Expedition Publishing (2009). *Facts about Whales*. Retrieved from <http://www.whale-world.com/facts-about-whales.html>
- c. National Science Foundation, and UCSBUCSB School-University Partnership (n.d.). *Partnership (n.d.). Why do whales and other sea mammals breach?* Santa Barbara, CA: UCSBCA: UCSB Science Line. Retrieved from <http://scienceline.ucsb.edu/getkey.php?key=682>
- d. Whale breach, 2013. Courtesy of National Oceanic and Atmospheric Association.

Source #2

This article from *Click* magazine is about what life is like for whales living in the ocean.

Swimming with the Pod

by Catherine Ripley

PFFFFF! Splash! A six-year-old male orca whale surfaces, shooting a big spray of stale air from the blowhole on top of his head. For several minutes he and his family slice slowly through the ocean waves, breathing deeply, filling their large lungs with air. Then, side by side, the orcas dive.

The male is the youngest and swims close to his mom. To their left is his uncle and in front, leading them all, is his grandmother. A second uncle swims nearby. And just beyond him are two more families in the pod, which is the name for a group of whales. The 1616 whales in this pod live together in Johnstone Strait, on the northwest coast of Canada.

Most orcas stay with the pod they are born into for their whole lives. As an infant, the young male swam

beneath his mother's belly, where he was safe and could nurse easily. When he was born, his mother probably helped him to the surface to take his first breath. Whales need air, just like people, or they will drown. Sometimes the pod might even help an injured whale come up to the surface for air.

When orcas are not searching for food, they like to "talk" and socialize—socialize—even play! They roll and splash in the salty water, and they call to each other. Scr-eee-CH! Whistle! Whistle!

The young male spy hops. He punches his head and upper body above the water and looks around. He sees a female cousin breach the waves. She throws her body almost completely out of the water and crashes down again. KERSPLASH! Another cousin swims sideways and smacks her flipper playfully against the water. SLAP!

Now Grandmother is speeding toward shore and the family follows. She rubs her massive body through the smooth rounded rocks on the bottom of the bay. Mom goes next and the young male follows. The family spends the next hour "beach rubbing." Scientists think this feels good to orcas and may help keep their skin clean.

But most of the pod's day is spent finding food. The whales spread out and send out a series of fast clicks as they swim down the bay together. Click, click, click! The orcas can tell from the way their clicks echo through the water if a school of salmon is nearby!

Some orcas hunt seals, sea lions, and porpoises, instead of fish. They live in small groups and are silent when they hunt. No chatting allowed! Their prey might be listening!

But the young male's pod eats mainly salmon. The whales use many calls to stay in touch as they hunt. "Wee-cries a cousin from across the bay. "Wee-oo-uuo," answers Grandmother. "Squ-eee-AL, CRe-e-e-eak," calls Mom. Each pod "speaks" slightly differently from the next, and scientists can recognize a particular pod by the sounds its whales make.

Soon the orcas' bellies are tight with salmon. It is time for a rest. Orcas cannot sleep under the water. They must come to the surface every few minutes to breathe. So they cruise slowly forward, diving, then surfacing for air, in a regular resting pattern that can last for hours. Swimming together, the young whale and his family surface, breathe, and dive ...dive ... surface, breathe, and dive... ZZZZZZ!

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Source #3

This article from *Highlights for Children* magazine is about ways that whales get food in the ocean.

How Humpbacks Go Fishing

by Linda Brown Anderson

Humpback whales are known for feeding alone or in pairs. Most of the time, they plow through the ocean with their huge mouths open, scooping up thousands of tiny shrimp-like creatures called krill.

But humpbacks that live near the west coast of North America have a surprising and spectacular way of catching fish. When they spot a school of herring, the humpbacks dive into the depths and close in on the fish from below. A steady flow of bubbles rises to the surface, forming a circle.

Suddenly, all of the whales explode out of the water at once, right in the middle of the bubble-circle. Their huge mouths are open and full of silver, wriggling fish.



A humpback whale blowing bubbles

A Deep Mystery

Dr. Fred Sharpe had a radical idea for the late 1980s, when he began his research. Maybe the whales were working together!

Dr. Sharpe led a team of researchers. They used sonar to "see" deeper into the water. A sonar device sends out sound waves, then catches the echoes of those waves after they bounce off objects, such as whales, fish, and bubbles. Using the echoes, the sonar creates pictures of the objects.

The sonar showed that, to a humpback, bubbles are tools. A single whale swims below the fish, carefully releasing air from its blowhole to create a wall of bubbles.

Also using sonar, the scientists saw other whales moving toward the herring, chasing the fish toward the bubble wall. The herring were reluctant to try to escape through the bubbles. The bubble-blowing whale began to swim in a circle, making the wall of bubbles go all the way around the fish. The fish were trapped in a bubble net!

Using an underwater microphone, the research team recorded the sounds of the whales. The whales swam under the herring and began their trumpet-like calls. Then the whales swam upward all at once, waving their flippers, and gulped a large number of fish.

The whales were working together!

A picture of whale swimming underwater with a large cloud of bubbles above its body is shown.

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