

K-2 Whale Watching Adventure Packet

Teacher Information:

This packet is designed for kindergarten through the second grade based on the content standards adopted by the California State Board of Education. You will gain basic information about whales and other marine mammals as well as some fun facts about the various sizes of whales, how long they live, how long they can hold their breath and ways to compare and contrast them from us and other animals.

What is a marine mammal?

Whales, dolphins, seals and sea lions are marine mammals. Whales and dolphins spend their entire life in the ocean while seals and sea lions spend a lot of time out of the water on land or on buoys catching some sun to warm up. These animals are warm blooded, breath air with lungs, have hair or fur, and give live birth to their young that they nurse with milk produced by the mother. There are many characteristics that marine mammals have in common with each other and with us as humans. There are also characteristics that make them different from fish or sharks even though they both live in the ocean. The main characteristics of a mammal are:

- **Is warm blooded**- no matter what the temperature is outside, a mammal can keep its body warm and at about the same temperature. This is unlike fish or reptiles that are cold blooded and their body temperature matches the environment around them.
- **Breathes air with lungs**- whales, dolphins, seals and sea lions breath air just like us humans do even though they live in the ocean. Whales and dolphins have what is called a **blow hole** on the top of their head so they can breathe without lifting their face out of the water. It's like us swimming with a snorkel. Fish and sharks breathe in the water with gills.
- **Has fur or hair**- you may not think that a whale or dolphin would have any fur because they look so smooth but they do! Most whales have only a few hairs around their head and dolphins around their blowhole. Seals and sea lions however are covered with fur and will actually shed their fur each year. Sometimes you can catch them grooming themselves just like your dog when they are on land.
- **Gives live birth to babies and feeds them milk**- All mammals give birth to their babies instead of hatching them from an egg like birds, fish or reptiles. Mother mammals also produce milk to feed their babies which gives them vitamins, nutrients and fats that they need to grow. Baby whales and dolphins are born in the ocean and spend usually the first

year of their life being cared for and fed by their mother before they gain enough strength to eat and swim on their own.

- **FUN FACT:** Milk from a mommy whale is so thick and fatty that it can be almost the consistency of toothpaste! This super fatty milk helps the baby gain almost 60-70 lbs a day depending on their species which helps it to stay warm!

Kinds of whales:

The two kinds of whales are determined by the kind of food they eat and the kind of teeth they have. You can often tell what kind of food an animal eats by the shape of its teeth. An animal that has sharp teeth will eat meat and use them for cutting meat. An animal with flat teeth might eat grass or plants and use them for chewing. An animal with some flat teeth and some sharp teeth will eat both meat and plants. (What kind of teeth do we have and what do we eat?) This is how scientists classify marine mammals into different groups as well.

- **Toothed Whales-** These are whales like orcas (killer whales), dolphins, porpoises, and sperm whales. Toothed whales tend to be smaller and hunt other animals and eat meat. They have sharp pointed teeth for grabbing fish, octopus, squid, or even other marine mammals. Toothed whales and dolphins will usually live in a group called a pod so they can hunt together similar to wolves on land. Dolphins will work together to herd fish into big groups and then take turns swimming into the ball of fish catching as many fish as they can eat each time. Orcas will hunt for large fish like tuna or salmon but also eat seals and sea lions. They will stalk their prey like a lion and attack them quickly using their sharp teeth to grab them and kill them. You can relate dolphins and orcas to other predatory packs like lions or wolves.
- **Baleen Whales-** These whales have very special teeth called baleen. Whales that have baleen are gray whales, blue whales, humpback whales, and fin whales amongst others. Baleen is made out of the same material as our fingernails and looks like a brush or comb growing in the front of their mouth. Instead of using their teeth to grab fish or to chew, they use their baleen to sift through the water and capture tiny shrimp like animals called krill. Gray whales will use their baleen to scoop huge mouthfuls of mud and sand and sift out small worms, shrimp and clams out of the sand. You can think of how a baleen whale eats like as if you ate a huge spoon of cereal and squished all the milk out through your teeth to collect the cereal behind them.

Whale Characteristics:

- **Blowhole**- the hole on the top of a dolphin's or whale's head that allows them to breathe. The blowhole is where the whale spouts.
- **Spout**- This is the air exhaled from the dolphin or whale and looks like a small cloud that blows from the blowhole.
- **Fin**- The flippers on either side of the whale or dolphin that help balance them when they are swimming. They don't propel themselves forward with their fins like when we swim but rather use them for steering and balance.
- **Fluke**- The tail of a whale or dolphin. This fin is used for propelling them forward when they swim, so they flap it up and down in the water and it pushes them forward. Before a whale makes a deep dive they will raise their tail out of the water and certain whales can be identified by the markings on their fluke.
- **Dorsal Fin**- The triangular shaped fin that most whales and dolphins have on the lower part of their back near their tail.
- **Blubber**- A thick layer of fat under the skin of marine mammals which helps them stay warm in the ocean.

Fun Whale Facts:

- The blue whale is the largest animal to have ever lived on this planet with the longest blue whale ever recorded being 108 feet long! This is about twice the size of a school bus!
- Scientists think that a blue whale might be able to live for 80-90 years or even longer!
- Humpback whales will sing songs that can last nearly 20 minutes and will sing them over and over again so that they can be heard by other whales all across the ocean.
- A blue whale can hold its breath for almost an hour but a Sperm whale is the champion diver and can hold its breathe for over 2 hours and can dive to almost 10,000 feet!!