

For Creative Minds

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What makes an animal a mammal?

All mammals are **warm-blooded** and breathe **air**.

They have **hair**.

All mammals protect their young and feed their babies on **mother's milk**.

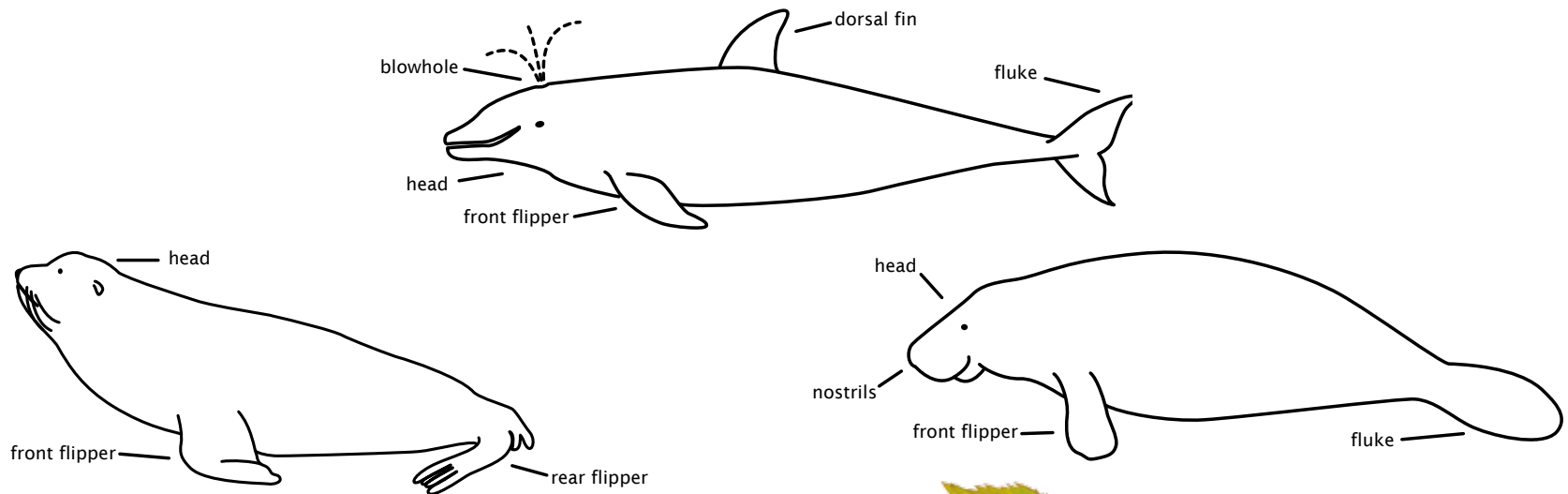
There are about 4,000 types of mammals. Most mammals live on land. People are one type of mammal. Cats and dogs are mammals. So are many farm animals, such as cows, goats, and horses. Zoo animals like monkeys, kangaroos, and hippos are mammals. Bats are mammals that can fly. Marine mammals are mammals that live in the ocean.

Scientists sort marine mammals into three groups or "orders:"

Cetaceans are whales and dolphins.

Carnivora are polar bears, sea otters, and the pinnipeds (seals, sea lions, and walruses).

Sirenians are manatees and their relatives, the dugongs.



Adaptations help animals to live in their habitat: to get food and water, to protect themselves from predators, to survive weather, and even to help them make their homes. Marine mammals have special adaptations so they can live in the ocean. Can you match the adaptations that help mammals live in the ocean? Answers are upside down, below.

- 1** Marine mammals are able to store oxygen longer than land mammals so they can stay underwater for longer periods.
- 2** A blowhole at the top of the head helps dolphins and whales to breathe easily while swimming. They can keep their heads underwater to watch for predators or food while they breathe! Some cetaceans have one blowhole while others have two.
- 3** Nostrils stay closed when marine mammals swim.
- 4** Dolphins' and whales' tails (called flukes) move up and down to help them swim. They use their front flippers to steer.
- 5** Walrus use their tusks to help pull themselves up onto shore.
- 6** Manatees use their paddle-like front flippers for swimming or "walking" along on the ground. Sometimes they even use their flippers to hold things and to bring food to their mouths!



A



B



C



D



E



F

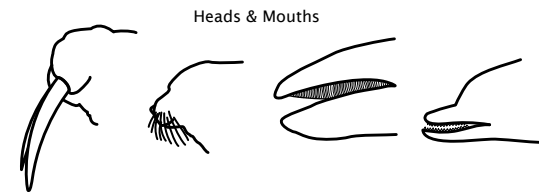
1 - F, 2 - D, 3 - C, 4 - A, 5 - E, 6 - B

Make Your Own Marine Animal

Copy or download the last page. Cut out each rectangle. Using the information below, decide what features your animal(s) will have and draw your choices onto the appropriate area. Staple the pages together along the spine and cut all four layers on the dotted line just up to the solid gray line (spine). Now you are ready to mix and match your animals!

Here are some things to think about when designing your marine mammals:

- Will your animal breathe through a nose or blowhole? Draw the nose or blowhole(s) on the head.
- Draw tusks, whiskers, or baleen if desired.
- Draw eyes on the head where you think they should go. Large eyes help animals to see in the dark water. Eyes closer to the top of the head are good for animals that like to float with their head above water. Eyes further down on the side of the head make it easier for animals with blowholes to see in the water when they come up for a breath.
- Some marine mammals (pinnipeds) use “whiskers” to find food. The walrus uses its tusks to dig for food in the sand. Draw whiskers or tusks if desired.



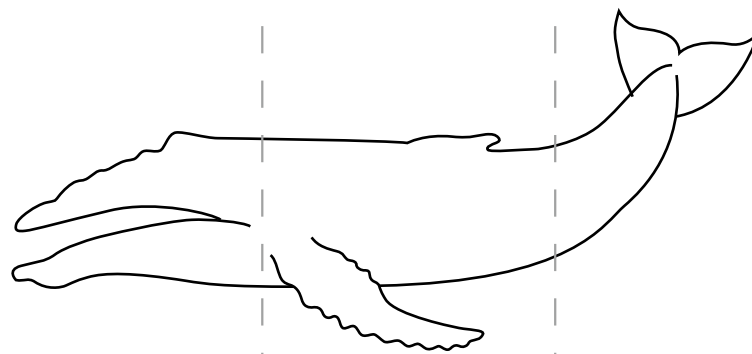
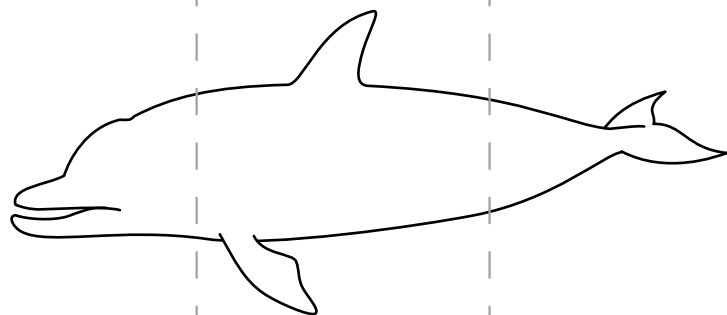
- Sea lions, fur seals, and sea otters have external ear flaps like us. Cetaceans “hear” by using echolocation (they send out a sound that bounces back to tell the cetacean where something is). How will your animal hear? Draw ears if desired.
- Will your animal live in warm or cold water? If it lives in cold water, how will it stay warm: fur or blubber? Blubber is a heavy layer of fat that helps to keep marine mammals warm in cold water. Draw fur onto the body if the animal has fur.
- Dorsal fins steady animals as they swim. Will your animals have a dorsal fin? Here are some kinds of dorsal fins that you can draw on the top of its back.
- Will your marine mammal be able to climb onto land? If so, will they have claws on their front flippers? Draw onto the animal.



Dorsal Fins



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