

Marine Mammal Features

Grade Level: 3

Science Skills:

Florida Sunshine State Standards: SC.3.L.15.1

Description: Students will learn how the basic characteristics of all mammals apply to marine mammals, such as dolphins, and how dolphins, as marine mammals, differ from other marine animals.

Materials:

- Chart paper/white board
- Markers/Dry-erase markers
- “Creature Feature” worksheet
- “Dolphin Anatomy” transparency/ “Dolphin Anatomy” picture
- “Create a Critter” worksheet
- Ziploc bags (one for each student) filled with a small amount of:
 - Feathers
 - Latex gloves/Ceram wrap
 - Bubble wrap
 - Felt
 - Aluminum foil

Preparations: Make enough copies of the “Creature Features” worksheet and “Create a Critter” worksheet for each member of the class. Print the “Dolphin Anatomy” picture out onto a transparency, if using an overhead projector, or download the file if using a print-out or SmartBoard. Place a small portion of each craft material (feathers, latex gloves/plastic wrap, bubble wrap, felt, and aluminum foil) in one Ziploc bag per student.

Procedures:

- 1) Using chart paper, review the major groups of vertebrate animals: reptiles, amphibians, fish, birds, and mammals. Make sure all major characteristics are listed as shown below.

Vertebrates				
<u>Fish</u>	<u>Amphibians</u>	<u>Reptiles</u>	<u>Birds</u>	<u>Mammals</u>
Cold-blooded Lay eggs (in water) Have fins, scales, and gills	Cold-blooded Lay eggs (in water) Have moist skin Born in water/have gills Adults have lungs and go on land	Cold-blooded Lay eggs (on land) Have scales	Warm-blooded Lay eggs (on land) Have feathers, lightweight bones, and wings	Warm-blooded Give live-birth Have hair or fur Nurse their young

2) Have the students list representatives of each category that can be found in/or directly rely on the ocean. Focus most on fish and mammals. For example:

Vertebrates				
<u>Fish</u>	<u>Amphibians</u>	<u>Reptiles</u>	<u>Birds</u>	<u>Mammals</u>
Sharks Snapper Trout Snook	No amphibians live in the ocean	Sea Snakes Sea Turtles Saltwater Crocodiles	Penguins Cormorants Pelicans Gulls	Dolphins Whales Walruses Seals

3) After finishing the chart with mammals, spend some time discussing dolphins as a marine mammal.

4) Display a transparency/picture of the dolphin anatomy on the whiteboard. Follow the given directions sheet and complete the “Dolphin Anatomy” assignment.

5) Group students into groups of four or less

6) Pass out the “Creature Features” worksheet and have the groups determine which characteristics are found on a shark, which characteristics are found on a dolphin, and which characteristics are found on both.

7) Discuss the correct answers to “Creature Features”

8) Pass out the “Create a Critter” worksheet

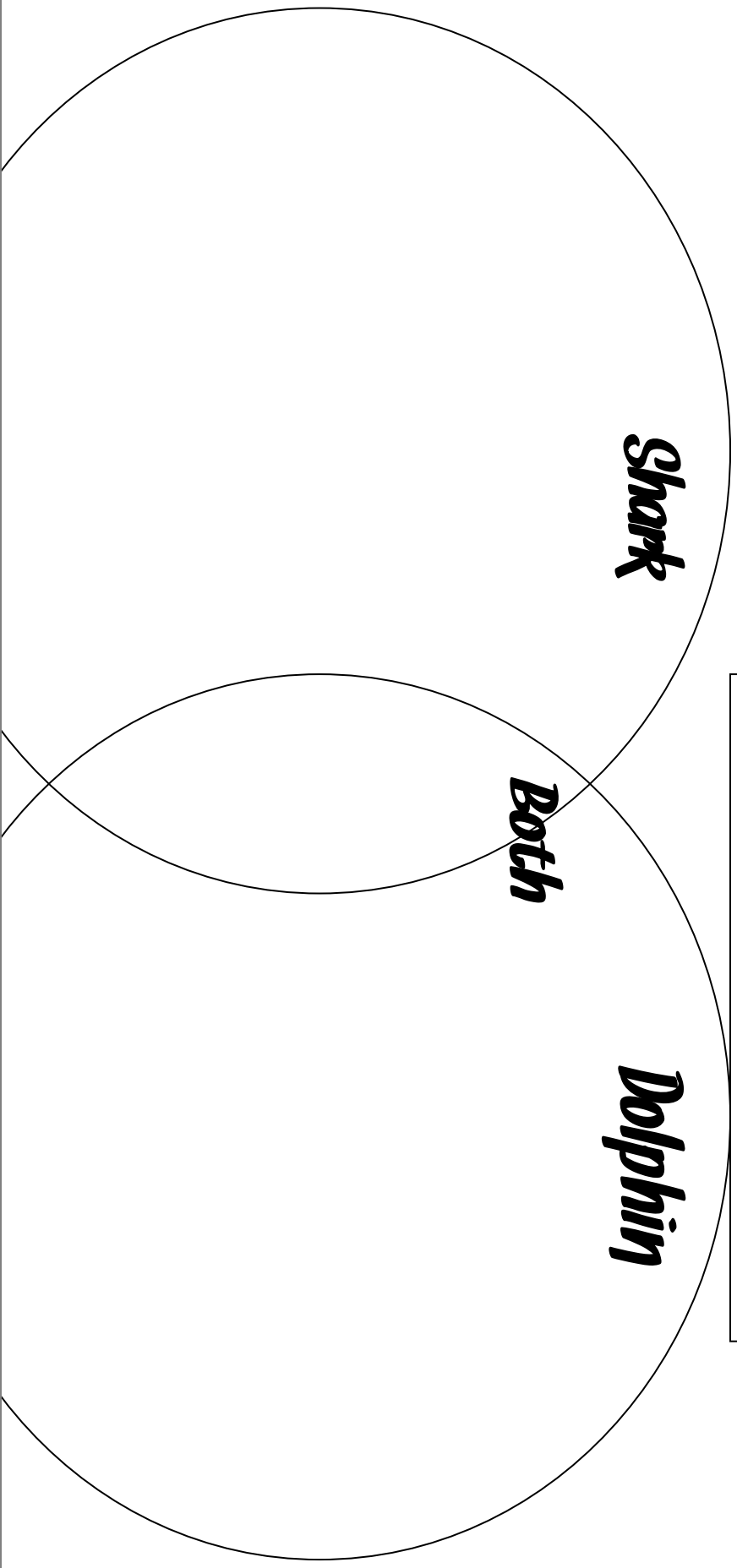
9) Using the information given by the discussion of marine vertebrates, as well as the answers from “Creature Features”, instruct students that they are to create their own marine vertebrate using the materials given. They must present their creation to the class and determine why they chose the characteristics of their animal.



Creature Features

NAME:

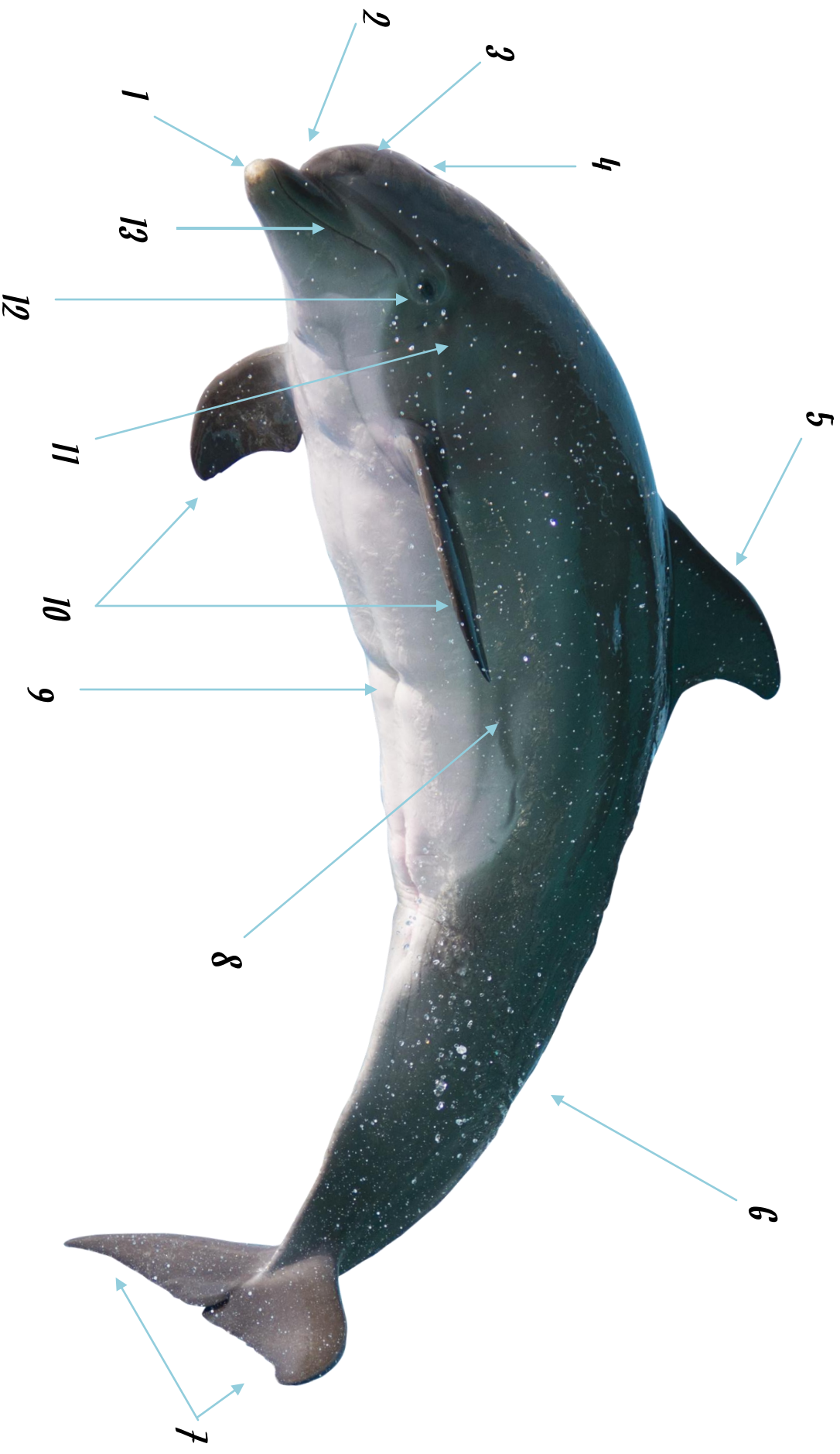
Directions: Use the Venn diagram to list the features of sharks, the features of dolphins, and the features they share. Careful, some of the features may not belong to either!

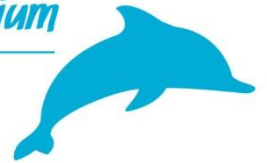


- Scale
- Feathers
- Fins
- Gills
- live underwater
- Eat fish
- live birth
- lay eggs
- Teeth
- Tongues
- Tail flukes
- Caudal Fin
- Camouflage



Dolphin Anatomy





Dolphin Anatomy Clues

Teacher Only

Read the clues aloud. The correct answer is in **bold** after the clue

1. Sometimes called a beak, this elongated feature gives the species its name “bottlenose.” Dolphins use this part of their body for interaction and feeling objects; it also includes a dolphin’s jaws. **Rostrum**
2. Dolphins have these sensitive hairs on their “bottlenose” during the first few weeks of their lives. It helps them to find their mother’s mammary glands. **Whiskers**
3. The “forehead” of the dolphin contains fatty tissue and air sacs used in echolocation. **Melon**
4. The dolphin breathes air through this, not water! Any water or spray you may see coming out near this area is being blown from its protective covering. Fun fact: Dolphins have one of these openings, while whales have two! **Blowhole**
5. This top fin is like a dolphin’s fingerprint – no two are alike. Dolphins use this fin to steady themselves underwater and to regulate their body temperature, while scientists use it to identify the dolphin. **Dorsal Fin**
6. This muscular area provides the power behind the dolphin’s up and down swimming motion. **Peduncle**
7. These two lobes make up the tail of the dolphins. Unlike fish, dolphins move their tails up and down to provide the thrust to move through the water. **Tail Flukes**
8. Dolphins’ coloring is dark on top and light on the bottom. This helps them to blend in and also makes it harder for both predators and prey to see the dolphin. **Counter-shading/Camouflage**
9. Also called an umbilicus, this feature once connected the dolphin calf to its mother. We have one too! **Belly Button**

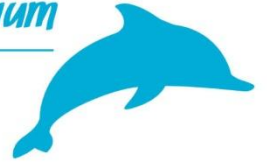
10. These fins on the sides help dolphins to steer and provide lift in the water.

Pectoral Fins

11. This is the opening to the dolphin's ears; however dolphins also receive sounds through their lower jaw. **Ear Slit**

12. Despite having echolocation to use, a dolphin's sense of sight is very good. They can see above and below water, and can even see well in dim light. **Eye**

13. Dolphins have between 80 to 110 of these cone-shaped objects. They don't use them for chewing though – dolphins swallow their food whole! **Teeth**



Create a Critter

Name: _____

Directions: Using your knowledge of marine animals and the materials in front of you, create a brand new ocean animal. Give it fins or flippers, gills or lungs, scales or feathers, and then write a brief description including the name of your ocean animal.

Materials

- Feathers – feathers
- Plastic wrap – smooth skin
- Bubble wrap – insulation, blubber
- Felt – fur
- Aluminum foil – scales

My Ocean Animal is called:

Draw your animal here and paste on its body covering from the materials listed above.