DOLPHIN RESEARCH CENTER

Dolphin For A Day!

Grade Level: K-2nd

Objectives: Students will become familiar with dolphin physiology by naming the following body parts: flippers, flukes, and fins, and describing the function of each. By role playing how a dolphin/whale moves, they will demonstrate the difference between fish and whales.

Florida Sunshine State Standards: Science

SC.G.1.1.4: The student knows that animals and plants can be associated with their environment by an examination of their structural characteristics.

National Science Education Standards

Content Standard C (K-4) - Characteristics of organisms: Each plant or animal has different structures that serve different functions in growth, survival, and reproduction. For example, humans have distinct body structures for walking, holding, seeing, and talking.

Background: Just as each creature has certain adaptations that enable it to survive in a given environment, dolphins have certain adaptations to enable them to live in their watery world, the ocean. Dolphins are mammals, not fish. What makes a dolphin a mammal?

- 1. They breathe air directly into their lungs.
- 2. They have hair at some point during their life cycle.
- 3. They are warm-blooded.
- 4. They give birth to live young.
- 5. They nurse their young.

Here's more interesting facts about bottle nosed dolphins:

- Dolphins can swim up to 19 mph!
- No two tail flukes or dorsal fins are alike- just like our own fingerprints!
- A dorsal fin is on a dolphin's back and is used for stability in the water much like the keel on a boat.
- The pectoral flippers are used for direction and steering through the water.
- If you were to take an x-ray of a dolphin's flipper, you would see something similar to your own hand and arm bones. They have an ulna, radius, humerus, and five sets of finger bones!
- Dolphins are born with dolphin mustaches! They have whiskers on their rostrum during their first few days of life.
- Dolphins can hold their breath for up to 7.2 minutes!

For more information, see *Physiology and Natural History* information files.

Key Terms

Dorsal fin: the usually triangular fin on the back of a whale's body.

Pectoral flipper: a whale's paddle-like forelimbs.

Flukes: the tail of a whale Mammal: an animal that has warm blood, hair, and breathes air. Female mammals nurse their young and give birth to live young



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Materials:

- Picture of a dolphin with labeled parts: dorsal fin, tail flukes, and pectoral flippers.
- Pre- cut gray construction paper flukes (one tail per student)
- Pre- cut gray construction paper dorsal fins (one per student)
- Pre- cut large brown paper bag (grocery bag) (one per student)
- Glue
- Crayons

Teacher Prep Notes: Cut out flukes & fins out of construction paper. (Use template)

Procedures:

- 1. Discuss what makes a dolphin a mammal.
- 2. Discuss the adaptations that enable them to live in their environment.
- 3. Use photo and labeled parts of the dolphin and discuss the functions of the flippers, flukes, and dorsal fin. If desired, pass out copies of the picture for each student.
- 4. Pass out grocery bags to each student.
- 5. This is their "dolphin body suit".
- 6. Students will wear it as a vest with the cut side at the front. Student's bags should sit flat on their desk with the back facing up.
- 7. Before passing out the construction paper, review the names of the parts: dorsal fin, tail flukes, (the students' arms will be the flippers).
- 8. Distribute flukes. Have students glue the flukes to the bottom of the bag.
- 9. Distribute dorsal fins. Show students how to fold the flaps at the bottom of the dorsal fin. Fold flaps for better stability. Have students glue the bottoms of the flaps to the back of the bag so that the fin stands upright. (Helpful hint: Glue fin in the center of the bag. Make sure the fin curves toward the tail flukes.)
- 10. Have students color their suits/ bags.
- 11. Have students become dolphins!

Wrap Up: Students become dolphins and have them move like them- their tails up and down, jumping, steering, turning, chasing and catching food.

Taking it Further:

• Have a dolphin parade! As a class, write a story about a day in the life of a dolphin