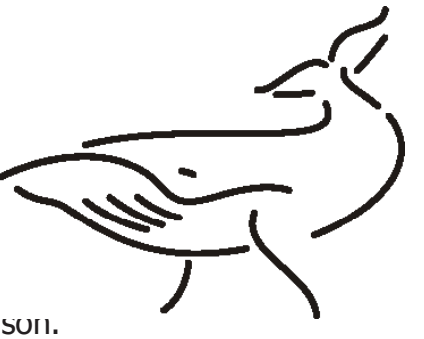
Humphrey The Lost Whale: A True Story

(GPN # 56)

Author: Wendy Tokuda & Richard Hall
Illustrator: Hanako Wakiyama
Publisher: Heian International

Program Description: Humpback whales, like many birds, migrate yearly. They travel between the cool waters of the north and the warmer waters near the equator. Humphrey is a real whale who lost his way by making a wrong turn into the San Francisco Bay. Inspired by these yearly migrations, LeVar spends a day at sea whale-watching and learning more about these sea mammals.



Finding Your Way

Key Words: geography, location, migration, landmark, route

Concept: Like many animals, whales migrate through the season.

Humphrey became separated from his pod during the long migration humpback whales make each year. Many animals migrate long distances without getting lost.

Animals find their way along their migration path in many ways, including using familiar landmarks. Create a simulated migration route using identified landmarks.

Materials: craft sticks, pencils, writing paper.

1. Choose a code word for each group of 2-3 students. Have them print that word on 8-10 craft sticks and number the sticks.

2. Have each group of students use these (in numerical order) for landmarks as they create a migration route in the school yard. Establish a beginning and ending point for the activity, and encourage each pod to create their own route between these points.

3. Later in the day, groups can retrace their migration route, collecting the sticks in order. Discuss how the landmarks helped them find their route.

Extension: Students can repeat the process by creating a new route, then drawing a map and writing a description of the route. Groups can exchange information and use it to follow the route — reclaiming the landmark sticks as they go. Discuss what clues were the most helpful in discovering the unknown route.

–continued

Sea, The Water Is Really Different

Key Words: salt water, fresh water, blubber, density, floating

Concept: Salt water is more dense than fresh water.

One reason that whales can grow so large is that the water helps hold up their bodies. Whales have a layer of fat (blubber) that is less dense than water. This blubber helps them float. Living in salt water also helps because salt water is more dense than fresh water — so objects float more easily. Since Humphrey swam into fresh water, people worried that he might have a harder time reaching the surface to breathe than he had in the salt water of the ocean.

Materials: Water, salt, two similar containers, two boiled eggs, writing paper, pencils.

1. Pour 2 cups of water each into 2 identical containers; dissolve 3 tablespoons of salt into the water of one container.

2. Gently put a boiled egg in each container.

3. Observe and record what happens. (Salt water is more dense than fresh water, it provides a greater buoyant force so the egg in the salt water will float.)

–continued

Skin Deep

Key Words: cells, cell function, concentration

Concept: Water moves into and out of cells depending on the concentration of dissolved solids, such as the salt in salt water.

Like all living tissue, skin is made of cells and cells function differently in salt water than in fresh water. Some biologists were worried that Humphrey's prolonged exposure to fresh water might make his skin become less healthy.

Although plant and animal cells are very different, the way cells generally function in salt water can be observed using some vegetables.

Materials: Water, salt, paper cups, celery or carrot sticks.

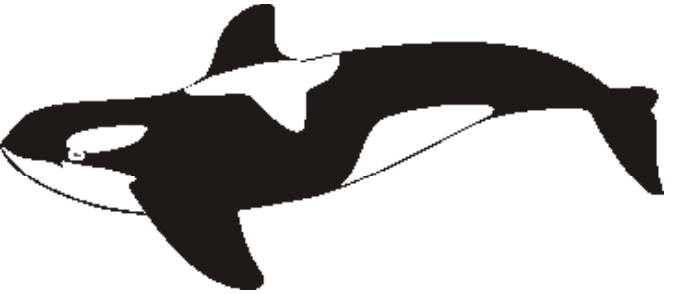
1. Put water in 2 cups and dissolve a tablespoon of salt in one, then place a carrot or celery stick in each cup.

2. After an hour or more, remove the vegetable sticks and bend them slowly. Have students note the difference. Groups can compare results to confirm that the difference is the result of soaking in fresh water versus salt water.

Because the concentration of salt is higher outside the vegetable cells than inside, water tends to move out of the cells. With less water in them, the cells bend more easily than when they were full of water. Skin cells do not allow water to pass as easily; however, whales' skin cells are adapted to function properly when surrounded by salt water and it was not known if this functioning might change in fresh water.

–continued

Hungry Humphrey



Key Words: crustacean, food, baleen, filter

Concept: Baleen whales eat by filtering food out of water.

We often assume that large animals eat large food. In fact, whales — one of the world's largest creatures, eat krill — one of the world's smallest creatures. Krill are crustaceans as are shrimp, crabs and lobsters. Since krill are so small (3/8"- 6" or 10-150 mm), whales need to eat a large number of them. Krill swim in schools of many hundreds of thousands so whales often catch them by swimming up from below and trapping many of them at a time in their large mouths. In this process, whales also catch a great deal of water which they squeeze out of their mouths through a fibrous substance called baleen. The baleen hangs from the whale's jaws in place of teeth and acts as a filter to hold the krill in as the water goes out. Use a comb to experience how baleen works.

Materials: Large bowl or tub, paper-punch dots, comb, water, paper, pencil.

1. Fill a large bowl or tub with water and put in some paper-punch dots.

2. "Catch" the dots by using the comb to scoop through the water. Count and record the number of dots strained out each time.

3. Experiment with methods (such as stirring, moving up from below, or moving in from a side) to catch more dots at a time.

GPN
1001 Fleet St
Baltimore, MD 21202
1-800-228-4630