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Activity Guide #1

The Adventures of Marco Flamingo Under the Sea

“Salty Experiment with follow-up Salt Water Paintings”

Subjects

Science, Art, Language Arts

Brief Description

Children will learn about the buoyancy of salt water through a hands on experiment. Then the salt water will be used to create under the sea paintings.

Objectives

Understand the term buoyancy (the ability to remain afloat in a liquid or to rise in air or gas).

Grasp why it is easier to swim in the ocean easier than in a lake or a swimming pool. (Salt makes the water heavier than the swimmer.)

May add a weighing exercise to this experiment.

For older students discuss three areas of buoyancy equation

1. Decrease the weight of object
2. Displace more of the fluid
3. Increase the weight of the fluid

Be thrifty! Don't waste. Find uses for materials rather than throw out.

Learn about ocean plants and creatures that live in the ocean

Have creative fun.

Key Words

Buoyancy, ocean, plant, fish, crustacean, mammal, invertebrate

Grade Level K-3

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Materials Needed

2 clear, wide mouth, plastic jugs or jars

measuring cup

9 cups warm water

1 cup of salt (more salt will be needed for paintings)

2 raw potato med size round works best

stir tool (spoon or long wooden spatula)

paring knife (to peel and slice potato into "fries shapes" for art activity)

liquid watercolor (or watered down tempera)

jars (one for each color paint desired)

large white paper (18 x 24)

large poster paper for Ocean Life Chart with headings:

Plants (kelp, seaweed)

Mammals (Whales, dolphins)

Crustaceans (lobsters, crabs)

Invertebrates (jelly fish, sponges, octopi, squids, anemones)

Fish (surgeon fish, rays, clown fish)

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Activities

Buoyancy experiment

1. Gather students around a table big enough for all to see the experiment
2. Into each plastic container, pour in 4 and 1/2 cups of warm water.
3. Add the 1 cup of salt to one of the containers of water. Stir well
4. Put a potato into the unsalted water and watch it sink.
5. Put the other potato into the salted water and watch it float.

Salt water color paintings (can do a class mural if desired)

1. Take the salt water and pour equally into 8 small containers. (more or less as desired)
2. Add drops of liquid watercolor and extra salt as desired. Stir.
3. Peel the two potatoes and cut into french fry shapes.
4. Divide the class into groups that can paint comfortably at experiment table.. (other students can work on adding to Ocean Life Chart)
5. Have students paint with the french fries (they work great-are pliable)
6. Create an ocean painting that includes fish, mammals, invertebrates, crustaceans, and plants -- and themselves floating on top of the water or in scuba gear like Marco Flamingo.

Closure

Display art work and have students discuss what they learned.

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Activity Guide #2

The Adventures of Marco Flamingo Under the Sea

“Shell we add and subtract?”

Subjects

Math, Science, Language Arts

Brief Description

Shells are the topic stimulus for various activities in the math, science and language art curriculum.

Objectives

To increase a student’s ability to do math in one’s head.

Make math fun.

To increase skills in identification.

Practice in research and writing nonfiction reports.

Key Words

Mollusks, organism, habitat, nonfiction

Grade Level K-5

Materials Needed

Shells

Permanent markers

Shell charts, books

Computers

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Activities

Math content: Children bring in shells they have collected, or teacher may provide. Use shells that can lie flat on a table such as scallops or clams. On the inside of each shell write a number, such as 6. Each shell will be numbered. Use as many shells as desired. Students turn over two shells and add the numbers together. If they get it right, the student keeps the two shells. Proceed until all shells are used. Variations can be as created depending on the age and ability of children to work math problems in their head. Multiplication is a good choice.

Science content: Identify the shells brought in. Use a shell identification chart or internet research.

Language Arts. Students may choose a shell and write a report on habitat, the living organism that resides in the shell, and how the organism breathes, eats and reproduces.

Closure

Create a nature center in the classroom, with a specific area for shells. Add to the collection and student's knowledge of shells/mollusks.

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RECIPE

Edible Aquarium

Here's an idea for an "edible aquarium" for a birthday party or just for fun after reading ***The Adventures of Marco Flamingo Under the Sea.***

You will need:

Glass bowl (or real, new glass fish bowl)

Blue jello

Gummy Fish

<http://www.bizrate.com/candy/products_keyword--fish+shaped+candy.html>

Seaweed <<http://www.dealtime.com/xPO-Sokensha-Seaweed-Candy>>

x-ray fish < www.blaircandy.com/guxfi36.html >

or simply check out your favorite candy store in your area

Directions:

1. Make blue jello according to directions on the box. Pour into glass bowl.

Let cool in the refrigerator for about one hour until partially set.

2. After jello is partially set, add the fish candy. Place the bowl back in the refrigerator until completely set. Spoon out into individual clear plastic cups.

Eat and enjoy!

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