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Water Wonders

Gearing Up

Engage students by giving them a challenge. Tell them that there is a special liquid substance we use every day. If they can figure out what it is you will let them paint it. Students may ask yes or no questions. When students have guessed the substance is water, let them paint the ground with water.

Have students express what they know about water by contributing words to a water word bank. The word bank should be posted in the classroom and added to throughout the lessons.

Process Skills Used

observing
comparing
communicating

Guided Discovery

Background information for the teacher:

Water has many properties: it has surface tension, it flows, it changes shape to fit any container, it evaporates, and it dissolves some substances.

Materials needed for each group:

water in bucket
rubber tubing
strainers
food colouring
jars
various containers
measuring cups



Directions for the activity:

Pour water into each tub. Have students observe the water by feeling, smelling and moving it. Give students numerous containers, strainers, cups, tubing and jars. Direct student explorations by asking the following questions about water:

1. How can you move water from one container to another?
2. What shape is the water?
3. How does the water move?
4. What do you observe about the water?

Responding to Size

Discuss the following questions with the class:

- How does water feel, taste or smell?
- Why is water important?
- When do you use water?
- How do you move the water?
- What colour is water?

Have students make water pictures. They will use a damp sponge to lightly wash the paper. They will then drip food colouring on the page. When the papers have dried, each student may write a sentence telling something about water.

Applications and Extensions

Have students fill two clear jars halfway with water. Put a lid on one jar and mark the water level on both jars. Place the jars on a sunny window sill. Watch and record what happens

Real-World Applications

- Discuss the importance of drinking water.
- Discuss the need for water conservation.



Name _____

Water Wonders

- Draw how you used each container and water tool.

- Draw how you moved the water.

- What shape is the water?

- What did you observe about water?

Sink or Float

Gearing Up

Hold an orange over a clear bowl of water and ask the students to predict whether it will float or sink. Place the orange in the water and note that it floats. Peel the orange and repeat. Challenge the students to propose why that happened. Brainstorm a list of items that float.

Process Skills Used

classifying observing
predicting communicating

Guided Discovery

Background information for the teacher:

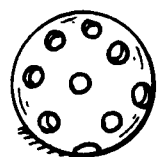
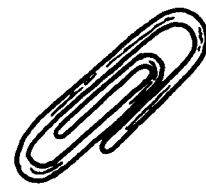
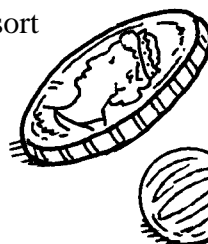
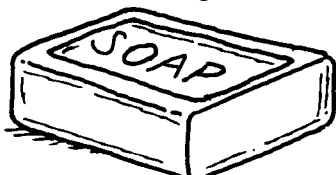
When an object floats, it will rest on the surface of or be suspended in a body of liquid. Buoyancy is the tendency of a body to float or rise when placed in a liquid. When an object sinks, it will fall to the bottom of a body of liquid.

Materials needed for each group:

clear tub
water
paper towels
any 10 items for testing:
paper clip coin cork
clay stone plastic
spoon marble soap
tennis ball ping pong ball golf ball etc.

Directions for the activity:

Have groups arrange the 10 items into two groups: items they predict will sink and items they predict will float. Each student should record predictions on the activity sheet. Students will work in groups to test the predictions. Students should record their findings on the activity sheet. Groups will sort items into sink and float categories.



Responding to Discovery

Play 'Walk, Freeze, Talk' to share what students learnt about sinking and floating. Students walk randomly around the room. When the teacher announces 'freeze,' all students stop and find a partner. The teacher poses one of the following questions for partners to discuss.

- Which objects did you think would float? Sink?
- Why do you think some items floated?
- What items fooled you?
- Which object sank the fastest? Why?
- Did all the objects that floated, float on the top of the water?

Applications and Extensions

Sing 'I am Floating'
(to tune of 'Frere-jacques').

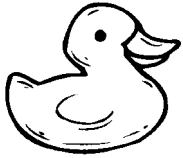
I am floating, I am floating,
Can it be? Can it be?

Resting on the water, resting on the water.
Look and see, look and see.

- Students can bring in items from home to test at a sink/float centre.

Real-World Applications

- Design or describe some great bathtub toys.
- What items do people use in their pools?

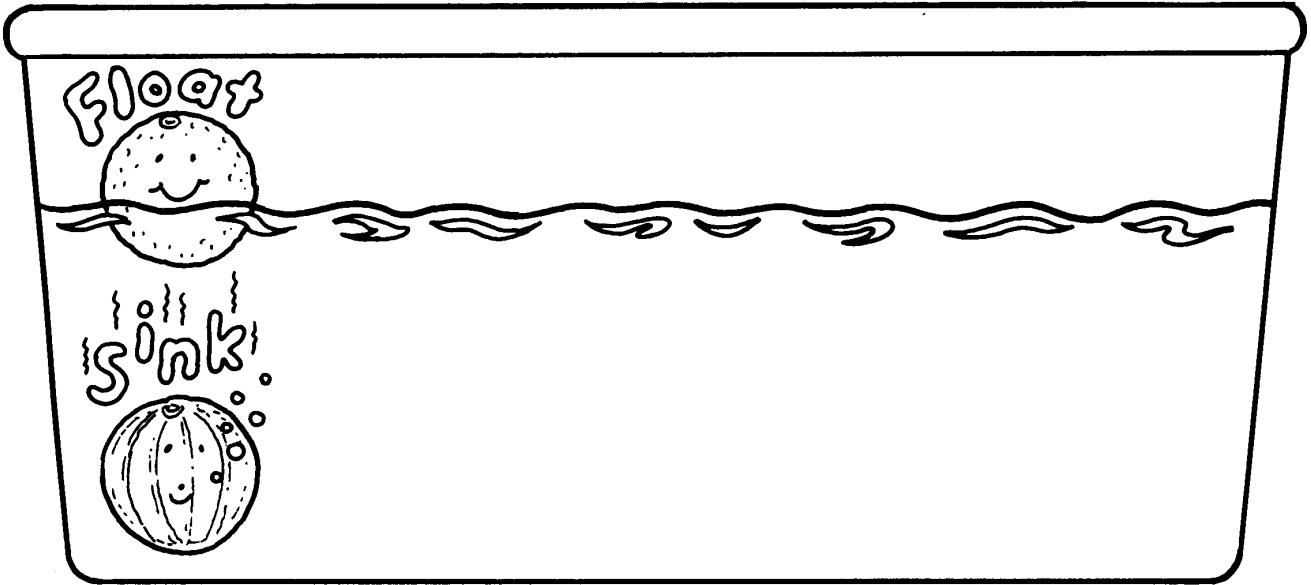


Name _____

Sink or Float

Sink or Float Predictions

- Draw or write your predictions.



Sink or Float Findings

- Draw or write your findings.

