1st Grade - Act. 19: Will it Float?

Summary

After dropping a number of items into water, students will discuss why some things float and others sink.

Materials

- cork
- pencil
- paper clip
- crayon
- twig
- marble
- plastic spoon
- bar of soap
- *Mr. Gumpy's Outing*
  by John Burningham

Additional Resources

Amazing Water by Melvin Berger
An Apple Floats by Christin Wilsdon
Is It Floating? by Fred and Jeanne Biddulph
Sink or Float by Leslie Fox
Water Changes by Brenda Parkes

Background for Teachers

When objects sink or float, they push water away. When water is pushed aside we call it displacement. If the amount of water pushed aside by an object weighs more than the object, the water can hold it up and it floats.
If an object placed in the water pushes away an amount of water that weighs less than the object, the water can't hold it up and it sinks.
When the aluminum foil boat is on top of the water, it is pushing the water aside, or displacing it. All of this displaced water weighs more than the foil, so it allows the foil boat to float. When the surface area of the foil is smaller (the foil is crumpled) it does not displace or push aside enough water to allow it to float.

Intended Learning Outcomes

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5. Understand and use basic concepts and skills.
Process Skills
Observation, classification

Instructional Procedures

Invitation to Learn
Read *Mr. Gumpy's Outing.*
Instructional Procedures

Show items on table and have students predict which will sink or float. Record findings on a chart.

Drop items one at a time in water. Observe what happens and mark results on the chart.
Discuss why certain items floated and others sank.
Compare predicted results with what actually happened.

Extensions

Possible Extensions/Adaptations
Try using other materials such as an oil-based clay to see if the same principles apply. Also try leaves, twigs, and other objects found in nature.
Family Connections
Invite the students to share the sink or float chart with their family. Have them experiment with objects at home and share results with the class.

Assessment Plan

Write observations of the experiment in a journal. Describe one object and tell about results.

Authors

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