

1st Grade - Act. 20: Changing Matter

Summary

Students will investigate the concept of water changing states.

Materials

- white art paper
- ice cube trays
- water
- food coloring

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

A liquid takes the shape of any container it is poured into, but doesn't change its volume as it flows from one container to another. (Volume means the amount of something or the quantity of space it takes up.) A solid keeps its shape and volume. Water becomes a solid when temperatures drop below freezing. Water's freezing and melting points are not very extreme, so it can pass from phase to phase in the course of a day.

Intended Learning Outcomes

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5. Understand and use basic concepts and skills.

Process Skills

Observation, predictions

Instructional Procedures

Invitation to Learn

Discuss prior knowledge about popsicles and how they are made.

Instructional Procedures

- In a glass pitcher, mix water and one color of food coloring.

- Discuss the properties of liquids.

- Pour liquid into ice cube trays.

- Place trays in the freezer.

- Repeat steps 1-4 with a different color of food coloring.

- Remove trays from freezer.

- Have students place one ice cube of each color on white art paper.

- Place paper and cubes in a sunny location.

- Wait for liquid to evaporate and dry.

- Observe the pattern that remains on the paper.

Extensions

Possible Extensions/Adaptations

Teach hand signs and a song for the water cycles. Use transformations to create a picture.

Family Connections

Encourage students to find other examples of water changing states in their homes. Encourage students to find other solids, liquids, and gases in their homes.

Authors

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