

Grade Level
Kindergarten
1st Grade

Topic
Solids and liquids

Title
Ice Magic

Objectives

Students will learn that an object can be both a solid and a liquid at different times.
Students will understand that ice is water in solid form.
Students will conduct observations and record their data.

Standards

- K.2.2 Draw pictures and write words to describe objects and experiences.
- K.3.1 Describe objects in terms of the materials they are made of such as clay, cloth, paper, etc.
- K.6.1 Describe an object by saying how it is similar to or different from another object.
- 1.1.2 Investigate and make observations to seek answers to questions about the world such as, “In what ways do animals move?”
- 1.2.6 Describe and compare object in terms of numbers, size, weight, shape, texture, color and motion.
- 1.3.1 Recognize and explain that water can be a liquid or a solid and go back and forth from one form to the other. Investigate by observing that if water is turned into ice and the ice is allowed to melt, there is the same amount of water as it was before freezing.

Materials

Ice cubes
Small plastic glasses
Water source
Aluminum foil
Rulers
Salt
K-W-L chart

Activities

Introduction: Show the students an ice cube in cup. Ask the students what the ice cube is made from. Record their predictions on a chart. Ask the students how we could find out what the ice cube is made from. Guide the discussion to get them thinking about what happens to ice as it melts.

Body: Draw a 4-square chart on the board for the students to copy this chart twice in their science notebooks. Label box 1 “After 1 minute,” label box 2 “After 2 minutes,” label

box 3 “After 3 minutes,” and label box 4 “After 4 minutes.” Explain to the students that they will be recording/drawing what the ice looks like at each of these time intervals. Give them each a cup with an ice cube. Have the students observe the ice and give them time warnings for when to draw or write their observations. After four minutes, ask if any students have their ice cubes melted. When they don’t, ask why they think that is. Have them make predictions of what they can do to get the ice to melt quickly. Bring out salt, aluminum foil, cups of water, etc. and have them use these items to melt the ice. Allow the students to use the items and see how long it takes. Again, give them time warnings and remind them to draw pictures of what the ice looks like as well as what items they use to speed up the melting.

Conclusion: After the ice is all melted, bring them together to discuss what happened as the ice melted. Discuss how the ice and the water are similar and different (can lead into the discussion that liquid takes the form of the container while ice does not, etc.) Talk to the students about what ice is made of and how we know that for sure.

Assessment

Give students the assessment sheet where they need to circle items that can be both a solid and a liquid. (see attached)