

Name _____

Date _____



What's the Matter with My Snow? *Family Page*



Question: How dense is the snow today?

What's Happening in Class?

We are using the recent snowfall as a means for learning more about snow, density, and water. Our class has collected snow samples around the school. These samples were measured for both their mass and volume in order to calculate the density of the snow. Classroom activities related to this investigation focus on one or more of the following: the causes of snow, phase change, and the water cycle. For more specific information on this lesson, visit the *Science for Ohio* website at www.environmentaleducationohio.org and click on the *What's the Matter with My Snow?* inquiry.

What Can We Do at Home?

- 1) Discuss the following terms and look for examples in and around your home:
density--how tightly packed matter is. Example: A Styrofoam cup has a lower density (and is therefore lighter) than a glass cup of the same size.
phase change--the shift in matter from one state (solid, liquid, or gas) to another.
Example: Snow melting is a phase change from solid to liquid.
water cycle--the cycle through which water travels on the Earth. Processes include evaporation, condensation, precipitation, and collection.

- 2) Conduct your own density experiments at home.
Compare the density of syrup and water. Fill two identical containers--one with syrup and one with water. Hold one in each hand and compare. The heavier liquid is the one with the greater density.

The formula for calculating density is based on the density of water (1 g/ml). Solid, liquid, or gas objects that are less dense than water (such as snow, oil, air) have a density that is less than one. Objects that are more dense than water (such as liquid soap, rocks) have a density that is greater than one. The next time you take a bath, investigate objects that sink and float to determine whether their density is less than or greater than one.

- 3) Consult the following resources to learn more about snow and/or the water cycle.

Books

A River Ran Wild by Lynne Cherry
ISBN 0-15-200542-0

National Audubon Society First Field Guide--Weather
ISBN 0-590-05488-0

World Wide Web

The Teel Family Website at www.teelfamily.com/ has snow-related links and information for science, art, literature, food, and more!

PBS has a water cycle informational page at
www.zoomwhales.com/subjects/Watercycle.shtml

You can download a water cycle program at www.leopold.iastate.edu/watercycle.html that allows you to interact with various aspects of the water cycle.