

Wet and Woolly

Skills: Science

Objective: The student will become familiar with wool and some characteristics of wool.

Background

It is difficult to tell if a piece of clothing is made from wool simply by looking at it or feeling it. Manmade fibers such as nylon and acrylic can feel and look like wool. The best way to tell is by reading the label.

Wool does have some characteristics that nylon and acrylic do not have. When wool is stretched, it springs back into shape. Manmade fibers feel like string and go flat when stretched out. Wool smells like fur. When wet it smells similar to a wet dog. However, when wool is wet it feels warmer than manmade fiber does. Wool can get quite damp without feeling uncomfortable to your skin. It's a good thing to wear if you're afraid you might get caught out in the cold because it won't freeze when it gets wet like other fabrics will.

Wool is a special natural fiber. It always feels warm and soft. It is very good at keeping out the cold and at warming your skin.

Science

1. Bring gloves made from wool and gloves made from synthetic fiber (acrylic or polyester) to class.
 - Each student will put a wool glove on one hand and a nonwool glove on the other hand.
 - Sprinkle two tablespoons of water over the palm of each glove.
 - Students will rub their hands together and wait five minutes.
 - After five minutes, ask students which hand feels warmer? Which one feels cooler?
 - Students will remove both gloves and place them on separate napkins or paper towels with the wet side of the glove down, against the paper.
 - After a few seconds, students will decide which glove still has more water on the surface. The wool glove should have more, since wool will not lose as much water as manmade fiber.
2. Designate a “Wool Day.”
 - Students will wear wool to class.
 - Bring items made from wool and set up a display.
3. Bring several items of clothing to class.

P.A.S.S.

PRE-KINDERGARTEN

Science Process—1.1,3,4,5

Physical Science—2.1,2

Materials

wool gloves

gloves from synthetic
fibers

ice cubes in plastic bags

samples of wool clothing
and other items made from
wool

—Students will determine if they are made from wool or a manmade fiber.

4. Conduct the Ice Cube Test.

—Give each student two tightly-sealed plastic bags, eaching containing two or three ice cubes.

—Each student will put a wool glove on one hand and a nonwool glove on the other hand and hold one plastic bag filled with ice cubes in each hand.

—Lead a discussion based on the following: Which cubes melted first? Which hand felt cold first? Which glove would you want to be wearing if you were playing in the snow?

Extra Reading

Cox, Phil Roxbee, Cartwright, Steven, and Jenny Tyler, *Sam Sheep Can't Sleep: A Phonics Flap Book*, EDC, 2002.

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Lyon, George Ella, *Weaving the Rainbow*, Atheneum/Richard Jackson, 2004.

Millen, C.M., and Mary Azarian, *A Symphony for the Sheep*, Houghton Mifflin, 1996.

Nelson, Robin, *From Sheep to Sweater: A Start to Finish Book*, Lerner, 2003.

Sanders, Scott R., *Warm as Wool*, Bradbury, 1992.

Sloat, Teri, and Nadine Bernard Westcott, *Farmer Brown Shears His Sheep*, DK, 2000.

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