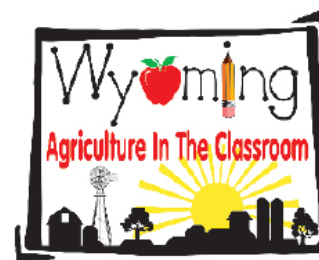


Dying Wool

Wyoming Activity



Materials

- Wool
- Water
- Koolaid (or natural plants noted below)
- Vinegar

Background

Your students may want to know "how do they color fabrics?" Or "how did the colonists or pioneers dye their wool?" If you'd like to take the time to dye wool, the activity can be fun and

educational. Here are a few simple recipes and suggestions. Koolaid method: In a quart canning jar, dissolve 1 pkg. Koolaid in one cup of water, add 1 tablespoon of vinegar and place in a pan of water on medium heat. Dampen about an ounce of wool and place in jar. Simmer for 20-30 minutes or until the water is almost clear and all the color is in the wool. Rinse wool in cool water. You may also use a sun dye method instead of the stove top. Just place the jar containing the dyestuff and wool in a sunny location for about four hours (can be longer or shorter depending on intensity of sun). If you would like to try some natural dyes consider the following (some of our locally found plants will produce dyes that work fairly well):

Coreopsis blooms (fresh or dried) dye a bright golden yellow

Onion skins dye a rich, reddish brown

Alfalfa leaves and stems dye a soft baby yellow

Poplar leaves dye tan

Teasel dyes a khaki color

Canada thistle leaves, stems, and flowers dye grey

Sunflowers dye a greenish gold

Cattail dyes beige

Sagebrush dyes a golden tan

Red cabbage dyes blue

About 1 pound of plant material will produce satisfying color on about 1/2 pound of wool. Cover the chopped up plant with water and simmer for about an hour. Strain the plant material from the liquid (cheese cloth works well), and add pre-dampened wool (you may have to add more water at this stage so that the wool is completely immersed). Simmer for another hour or until the wool is desired color, then rinse in cold water. A mordant (a chemical which opens up the fiber so that it bonds more easily with the dye, and often produces variations in the color of the dye) can be added to the dyebath or used on the wool before dyeing. However, most mordant (copper, tin, chrome, iron) are quite toxic. Alum or vinegar (both available at most grocery stores), can be used safely or use no mordant at all. Mordant is from the French word mordere, which means "to bite." The colors will "bite" and be more intense if a mordant is used. In order to experiment with plants and color, give your students a piece of white poster board and instruct them to scrape a leaf or flower across the card. The resulting stain is a good indication of the color that plant will produce when used as a dye.

Time: 1 Hour

Grade:

3rd Grade

4th Grade

Standards:

Science:

Science as Inquiry

Social Studies

Culture/Cultural Diversity

