

Experiment with Natural Dyes

Many fruits, vegetables, flowers, and plants have the ability to dye cloth. Experiment with different materials in your home and garden - some of the colors may surprise you! Keep notes so that you'll remember which ones worked well and which ones didn't. Take pictures and let us know how you did.



Only do this activity with an adult - you will be boiling water on a stovetop and need to be very careful!

What You Need

Protective Gear

Gloves - *provided in take-home kit*
Apron
Goggles

Tools

Scissors
Two-handled pot
Tongs or spatula
Soap flakes or dish soap
Colander or sieve

Natural Fibers or Fabrics

Wool - *provided in take-home kit*
Cotton - *provided in take-home kit*
Silk
Linen

Dye Ingredients

Make sure plants are safe to pick before touching them!

Try experimenting with different flowers, plants, fruits, or vegetables. Instead of throwing away peels and pits, see if you can transform them into colorful dyes!

Here are some suggestions:

Coffee, tea, beets, spinach, blueberries, marigolds, goldenrod, onion skins, lemon peel, black beans, red cabbage, carrots

Notebook

Record each step of your experiment as you try different dyes

Mordant (*optional*)

Alum (potassium aluminum sulfate) is a type of mordant, used to ensure that the fabric or fiber accepts the color. You can find alum in the spice aisle of the grocery store. It is fairly non-toxic and is also used as a food additive in pickling and canning to crisp fruits and vegetables. If you do add alum to your dye, use a pot that you do not cook in.



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Instructions

1

Wash your fabric/fiber

- Make sure the cloth or yarn you are using is 100% natural (cotton, wool, silk and linen)
- Prewash the material in warm, soapy water
- Gently squeeze material in the suds for 5 minutes
- Rinse thoroughly to make sure all soap is out of the material

2

Create your dye

- Gather plants or other natural ingredients (make sure they are safe to work with!)
- Chop them coarsely with scissors
- Add them to a pot with water in a 2:1 ration (if you have 1 cup of plant material, then use 2 cups of water)
- Boil for at least 30 minutes and up to 3 hours
- Strain plant material from dye - be careful of the hot water!

3

Dye your fabric/fiber

- Soak fabric/fiber in clean hot water
- Add wet and warm fabric/fiber to the dye pot
- Lower temperature and continue simmering, stirring occasionally
- Leave material in dye as long as you want to get the color you want; the longer you leave it in the dye, the darker it will become
- Rinse material in water that is roughly the same temperature as the dye to prevent shocking the fiber
- Let fabric/fiber line dry

OPTIONAL STEP

Add mordant to help set or bind the dyes to the fabric. If using alum, add 10% of the weight of your fabric (about 1 tbsp. per 100 grams). This can be added in the warm water that you use for pre-soaking the fabric/fiber, or it can be added into the dye pot itself. A copper or iron pot will naturally add mordant to your water.