



Peter Paul Rubens (Flemish, 1577 - 1640), *The Gathering of the Manna*, c. 1625. Oil on canvas, 192 x 162 in. Bequest of John Ringling, 1936. SN211

Artists have sought vibrant dyes for fabric and pigment for paint for thousands of years. Before the invention and widespread availability of synthetic, or manmade, pigments artists turned to nature to provide rich colors.

RED can be sourced from minerals, animals, and plants. Vermillion red is made from cinnabar. This vibrant pigment was dangerous since it comes from the ore of mercury, a highly toxic substance. Red can also be made more safely from the cochineal beetle's exoskeleton, that when crushed produces a rich red.

BLUE can also be made from minerals or plants. Minerals such as lapis lazuli and azurite produce vivid blue pigments when ground. Indigo, commonly manufactured in India, is created from the plant *Indigofera tinctoria*.

YELLOW is one of the most difficult dyes and pigments to make. Yellow can be made from ochre clay, from chemicals such as cadmium sulfide, or with the spice turmeric. Turmeric is a non-toxic dried plant that is common in both cooking and fabric dye.

TURMERIC

Turmeric has always been used in India as both a spice for food and as a dye, a tradition that continues to this day. It is the base of the most prevalent type of yellow dye in traditional Indian fabrics and has an international reputation as an accessible and beautiful dye for yellow fabrics. When used as a dye, turmeric creates a warm, sunshine yellow color similar to the one represented in the painting above.

STANDARDS:

SC.4.P.11.1

SC.7.P.11.1

ACTIVITY

NATURAL DYE

MATERIALS:
SAUCE PAN, PLANT BASES, FABRIC,
VINEGAR, AND WATER

DIFFICULTY LEVEL:
SIMPLE
NEEDS A GROWNUP



CREATE NATURAL DYES AT HOME!

You can make natural fabric dyes out of several common ingredients you might already have in your kitchen!

Here are some plant bases you can use to create your dyes, and the colors that they create:

DYE BASE	RESULTING COLOR
SPINACH	PALE GREEN
BEET ROOT	DEEP RED
BROWN ONION SKIN	DEEP TAN
BLACK TEA	LIGHT TAN
RED ONION SKIN	RED
RED CABBAGE	PURPLE
TURMERIC	YELLOW

DIRECTIONS

1. Chop up your natural dye base into small pieces. Add to a small saucepan and add twice the amount of water (if you use 1 cup of base, use 2 cups of water)
2. Bring to a boil, then simmer your dye for 1 hour.
3. Prepare your fabric. To do so, add fabric to a saucepan with 1 part vinegar to 4 parts water. Boil for 1 hour.
4. Place your wet fabric in your dye and let it sit until it achieves the color you want. Remember, the color will get lighter after the fabric dries.
5. Rinse your fabric in cold water until the water runs clear, then hang to dry.

Adapted from the blog post Natural Fabric Dyes by Twenty-first Century Lady published on July 24, 2012.

WE WOULD LOVE TO SEE WHAT YOU CREATE!

Click [here](#) to share your masterpiece on our Family Programs Facebook Group!