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.

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**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.

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**STANDARDS:**

**SC.4.P.11.1**
**SC.7.P.11.1**
CREATE NATURAL DYSES 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:

<table>
<thead>
<tr>
<th>DYE BASE</th>
<th>RESULTING COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPINACH</td>
<td>PALE GREEN</td>
</tr>
<tr>
<td>BEET ROOT</td>
<td>DEEP RED</td>
</tr>
<tr>
<td>BROWN ONION SKIN</td>
<td>DEEP TAN</td>
</tr>
<tr>
<td>BLACK TEA</td>
<td>LIGHT TAN</td>
</tr>
<tr>
<td>RED ONION SKIN</td>
<td>RED</td>
</tr>
<tr>
<td>RED CABBAGE</td>
<td>PURPLE</td>
</tr>
<tr>
<td>TURMERIC</td>
<td>YELLOW</td>
</tr>
</tbody>
</table>

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!