Dyeing clothing for decoration goes back at least to the Neolithic period. Early dyes would have had limited color range and were not very color fast. Eventually people started using mordants like urine, alum, and tannic acid to help bind the coloring agents to the fibers. This makes the color last much longer. Try dyeing some fabric or yarn at home with these 18th century dyestuffs.

**Dyeing with black walnut shells:**
- Black walnuts are a powerful dye. Wear gloves and protective clothing for the entire dyeing process.
- Gather about 10 black walnuts
- Remove the green outer hulls by gently crushing them with a rock
- Break the crushed hulls into one inch chunks
- Boil a gallon of water in an enameled pot (the tannic acid in the hulls may pit uncoated metal)
- Stir in hulls and simmer for an hour (use a plastic or other disposable spoon)
- Add skein of yarn or fabric (natural fibers work best) and simmer for another hour
- Remove yarn/fabric from dye bath and rinse in cold water until water runs clear
- Wring and allow yarn/fabric to dry
- Knit or sew!

**Dyeing with onion skins:**
Because onion skins are not as strong a dye as black walnuts, they work best when a mordant is added. In this case we will use alum powder, which you can usually find in the spice section of the supermarket. Alum has been used as a mordant since Roman times, and perhaps even earlier.

**Dye:**
- Fill a large enameled cooking pot loosely with dry onion skins
- Fill the pot about half-way with water and bring the mix to a boil
- Reduce heat and simmer for an hour, stirring occasionally (use a plastic or other disposable spoon).

**Mordant:**
- Mordant the yarn or fabric while the dye is simmering
- Half-fill another large enameled cooking pot with water.
- Warm the water over low heat and add 8 grams of alum (about 1/4 ounces)
- Add skein of yarn/fabric and slowly increase heat to a simmer
- Continue to simmer for 45 mins

**Dye Yarn/Fabric:**
- Allow both dye and mordant to cool
- Remove yarn/fabric from mordant pot and rinse well
- Add yarn/fabric to dye pot and heat until simmering
- Allow to simmer for 45 minutes
- Allow dye to cool. Remove the yarn/fabric and rinse with cool water until water is clear
- Wring and allow yarn/fabric to dry
- Knit or sew!

Both of these recipes should produce great natural colors, however, if you find that your yarn/fabric is coming out splotchy, it may mean that you need to scour it first. To do this, soak the yarn/fabric overnight in cool water with a few drops of liquid detergent in it. Then, thoroughly rinse it in lukewarm water. This will remove any oils in the yarn/fabric that may cause it to dye unevenly. Also, you can strain the dyes before adding the yarn/fabric to keep bits of dyestuff from getting tangled up in the material. This step is not required but it will produce a more even dye. Have fun making your own “color to dye for!”
Do What you Do...Then Share!

Try using common 18th century dyestuffs and mordants along with materials you find at home. Choose from the list below or use other natural dyestuffs. What colors will you create?

<table>
<thead>
<tr>
<th>Common 18th Century Dyestuffs</th>
<th>Mordants</th>
<th>Modern Dyestuffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochineal</td>
<td>Alum</td>
<td>Cabbage/vegetables</td>
</tr>
<tr>
<td>Indigo</td>
<td>Tannic Acid</td>
<td>Fennel/herbs</td>
</tr>
<tr>
<td>Oak bark/gall</td>
<td>Urine</td>
<td>Hibiscus/flowers</td>
</tr>
<tr>
<td>Sassafras</td>
<td>Salt</td>
<td>Strawberries/berries</td>
</tr>
<tr>
<td>Goldenrod</td>
<td>Ammonia</td>
<td>Plums/fruit</td>
</tr>
<tr>
<td>Pokeberry</td>
<td>Vinegar</td>
<td>Coffee &amp; Tea</td>
</tr>
<tr>
<td>Madder</td>
<td></td>
<td>Get creative! Try something not on the list.</td>
</tr>
</tbody>
</table>

Use the chart below to record the dyestuffs and mordants you use. Create new colors by mixing dyestuffs together and using different mordants.

<table>
<thead>
<tr>
<th>Dyestuffs used</th>
<th>Mordant used</th>
<th>Color Achieved</th>
</tr>
</thead>
</table>

Share!

Be sure to share your dye recipes and photos of your textile colors on our Facebook page. Go to historyisfun.org and click on the a icon.