Artisanal Dyeing in Latin America

Textile Workshop, 2016

Target Audience: Elementary, Grades 2-5

RELATED CONTENT AREAS
Spanish  |  Art  |  Social Studies  |  Science

INSTRUCTIONS

Overview
In this lesson, students will explore the process and the materials used in the natural, artisanal dyeing process used in Latin America for centuries.

Standards
Tennessee Visual Art Curriculum Standards
1.0 Students will understand and apply media, techniques, and processes.
4.0 Students will understand the visual arts in relation to history and cultures.
6.0 Students will make connections between visual arts and other disciplines.

Tennessee Modern Language Standards
1. Communicate in a language other than English.
2. Gain knowledge and understanding of other cultures.
3. Connect with other disciplines and acquire information.

Objectives
Students will be able to make predictions and identify the colors that natural materials produce, including cochineal, indigo, turmeric, annatto, and Brazil wood.
Students will be able to relate the dyeing process with cultural and historical context to deepen understanding.

Materials
- Small pots with water
- Alum/Cream of Tartar (powders)
- Cochineal, indigo, turmeric
- Computer and projector
- 6 tables
- Brazil wood, annatto

Vocabulary
Mordant - Alum - Cream of Tartar - Wool - Cochineal - Indigo - Turmeric - Annatto – Brazil wood

PROCEDURE
Teacher will give a brief overview of the dyeing process using a PowerPoint presentation as a guide.
2. Students will visit the tables in small groups of 4-6 students. Each table represents a step in the dyeing process.
   Table 1: Wash the wool with soap and warm water.
   - Materials: soap, water, wool
- Why do you think you wash the wool first?

Table 2: Mordant wool.
- Materials: alum powder, cream of tartar powder, cold water.
- What is a mordant? What does it mean to mordant the wool? Why do you mordant the wool before you dye it? - Mordant is a binding agent, normally a metal ion used in the dyeing process.
- Alum and cream of tartar are types of mordants. Mordants help the dye to “stick” to the wool, just as a piece of tape holds two things together.

Table 3: Dye with cochineal and indigo.
- Materials: cochineal, indigo, pot of water, wool, pre-dyed piece of wool.
- What is cochineal? What is indigo? ¿Cómo se dicen en español? How can you describe them?
Where do they come from? What color do you predict cochineal will dye the wool? What color do you predict the indigo will dye the wool?

Table 4: Dye with turmeric and annatto.
- What is turmeric? What is annatto? ¿Cómo se dicen en español? How can you describe them? What color do you predict the turmeric will dye the wool? What color do you predict the annatto will dye the wool?

Table 5: Dye with Brazil wood.
- What is Brazil wood? ¿Cómo se dice en español? What does it feel like? What does it small like? How can you describe what it looks like? What color do you predict the Brazil wood will dye the wool?

Table 6: Make your bracelet.
- There will be bag of pre-cut, mixed colored yarns dyed through this natural process. Students will pick a mystery piece and will be asked to guess which material was used to produce the color on their string, and how they know. - I predict that my string was dyed using ____ because ____.

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**EVALUATION**

Students will be provided with an individual piece of yarn that has been dyed using the natural process. Students will be asked to identify which of the natural dyes produced the color on their yarn.

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**EXTENSION ACTIVITIES**

Students will leave school with a bracelet made from yarn that was dyed through artisanal processes. Students will share a quarter-sheet of paper with parents that explains what they took part in, as well as follow up questions for the parent to ask the student.
### Natural Textile Dyeing Vocabulary

<table>
<thead>
<tr>
<th>English</th>
<th>Spanish</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alum</td>
<td>Alumbre</td>
<td>A common dye mordant (see below).</td>
</tr>
<tr>
<td>Annato dye</td>
<td>Achiote</td>
<td>A natural orange dye.</td>
</tr>
<tr>
<td>Baking soda</td>
<td>Bicarbonato de sodio</td>
<td>An alkaline substance used to alter the pH to change and intensify a color.</td>
</tr>
<tr>
<td>Brazilwood</td>
<td>Palo de Brasil</td>
<td>A natural orange-pink dye.</td>
</tr>
<tr>
<td>Chamomile leaves</td>
<td>Hojas de manzanilla</td>
<td>A natural yellow dye.</td>
</tr>
<tr>
<td>Cochineal</td>
<td>Cochinilla</td>
<td>A natural dark red dye.</td>
</tr>
<tr>
<td>Cotton</td>
<td>Algodón</td>
<td>A soft, white substance that surrounds the seeds of a plant. It is used as a textile fiber and thread for various products.</td>
</tr>
<tr>
<td>Cream of tartar</td>
<td>Crémor tártaro</td>
<td>A common dye mordant.</td>
</tr>
<tr>
<td>Dyeing</td>
<td>Teñido</td>
<td>The process of coloring fibers, yarns or fabrics.</td>
</tr>
<tr>
<td>Hibiscus (flower)</td>
<td>Jamaica</td>
<td>A natural pink dye.</td>
</tr>
<tr>
<td>Indigo</td>
<td>Añil</td>
<td>A natural blue dye.</td>
</tr>
<tr>
<td>Lemon</td>
<td>Limón</td>
<td>An acidic substance used to alter the pH to change and intensify a color.</td>
</tr>
<tr>
<td>Mordant</td>
<td>Mordiente</td>
<td>A naturally occurring, water-soluble pre-treatment fixative for the dye. The mordant is applied after the wool is washed, before the wool is immersed in the colored dye bath. Common mordants include alum and cream of tartar.</td>
</tr>
<tr>
<td>Red onion</td>
<td>Cebolla morada</td>
<td>A natural light green dye.</td>
</tr>
</tbody>
</table>
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<tr>
<td>Red roses</td>
<td>Rosas rojas</td>
<td>A natural pink dye.</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Cloruro de sodio en grano</td>
<td>An alkaline substance used to alter the pH to change and intensify a color.</td>
</tr>
<tr>
<td>Spin</td>
<td>Hilar</td>
<td>After the sheep wool has been cut and washed, it is spun. Spinning is the twisting together of drawn out strands of fibers to form yarn.</td>
</tr>
<tr>
<td>Prickly pear</td>
<td>Pitalla</td>
<td>A natural magenta dye.</td>
</tr>
<tr>
<td>Turmeric (ground)</td>
<td>Cúrcuma molida</td>
<td>A natural yellow dye.</td>
</tr>
<tr>
<td>Wool</td>
<td>Lana de oveja</td>
<td>The fine, soft, curly hair that forms the coat of sheep that is spun into yarn.</td>
</tr>
<tr>
<td>Vinager</td>
<td>Vinagre</td>
<td>An acidic substance used to alter the pH to change and intensify a color.</td>
</tr>
<tr>
<td>Yarn</td>
<td>Hilo</td>
<td>Spun thread that is used for knitting, weaving or sewing.</td>
</tr>
</tbody>
</table>
Wash wool with neutral soap and warm water

Mordant wool with alum and cream of tartar
To dye
with cochineal and indigo

To dye
with turmeric and annatto
To dye
with brazilwood

Make your bracelet

PALO DE BRASIL

VANDERBILT UNIVERSITY
Center for Latin American Studies
Wash wool with neutral soap and warm water
STEP #1

Mordant wool with alum and cream of tartar
STEP #2

To dye

with cochineal and indigo
STEP #4

To dye
with turmeric and annatto
STEP #5

To dye with brazilwood

Palo de Brasil
STEP #6

Make your bracelet
Natural Dyeing and Weaving Vocabulary images

Annatto
Alum
Brazilwood
Cochineal
Cotton
Cream of Tartar
Indigo
Loom
Sheep Wool
Turmeric
Weaver
Yarn

Contributed by Lisa Trujillo
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