Introduction to WEAVING TECHNIQUES
Inspired by the Bowers exhibit FIRST CALIFORNIANS

Creative fun and learning for the entire family, all from the comfort of home!
These lessons are intended to introduce children to weaving techniques practiced by Native Americans. Although our First Californians Gallery showcases sophisticated woven baskets used for storage and gathering food and water, we will instead highlight woven textiles made by the Navajo peoples of the Southwestern United States. Some of their most common weavings were blankets, shoulder wraps, sashes and other articles of clothing. Over time, Navajo weavers developed new designs and distinct styles, with uniquely dyed yarn and patterns.

In these lessons, families will learn to make thread, loom and woven textile. The materials for each project will be items that are commonly found in households.
DIY THREAD

AGES
8-12 years

SKILL LEVEL
Beginner

DESCRIPTION
Families will be making their own thread from old clothes.

MATERIALS

<table>
<thead>
<tr>
<th>Scissors</th>
<th>Old T-shirt or Cotton Fabric</th>
<th>Ruler*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pen</td>
<td>Markers*</td>
<td></td>
</tr>
</tbody>
</table>

Materials with an (*) are optional, use only if available.

Background

Thread is a string that is made using raw material like Cotton and Wool. Cotton comes from a plant and needs to be harvested. Wool is the name for sheep hair. This hair needs to be removed from sheep to keep them healthy. Cotton and wool need to be cleaned and processed before they can be used. Once they are ready, they are spun into tight strings that can then be used for weaving.

Helpful Tips

- Use fabric scissors if available.
- Use cotton or jersey knit shirts for a better outcome.
- Make sure the shirts do not have any graphics on them as this will change the stretchiness of the fabric.
1. Start by grabbing an old T-shirt and lay it out on a table or flat surface.

2. With the help of an adult, take the scissors and cut the shirt from the seams along the sides. Continue to the shoulders and down the other side.

3. Now trim off all the neckline and edge hems to get square shaped fabric.

4. Trim off any hems or excess pieces, then fold in half.

5. Fold that piece in half the same way. Then grab a ruler and mark down every two inches along the fabric.

6. When done, take scissors and cut the fabric along the markings. This will create even strips. Try to make sure to use as much of the fabric as possible, with little waste.

7. Once all the strips are cut, pull on them from both ends to stretch them out. Repeat this with each strip.

8. We have just created our own Thread! Use this in conjunction with the Loom project to make a woven fabric.
Thread
• A fine cord used in sewing, weaving and the like.
  Thread is usually made of two or more fibers such as cotton twisted together.
  “She spun the thread using sheep wool.”

Cotton
• Thread or cloth made from cotton fibers.
  “My t-shirt is made using 100% cotton.”

Wool
• The thick, soft, often curly hair of sheep, goat, llamas, and other animals.
  “Wool sweaters are very warm but need special care.”

Harvest
• To gather (crops that are ripe).
  “Shepherders harvest wool to prevent harm or injury to their sheep.”

Sheep
• An animal with hooves, hollow horns, and long, curly hair.
  “Sheep are raised for their wool.”

Healthy
• Being free from sickness; well.
  “I hope you are happy and healthy for the rest of the year.”

Clean
• Not dirty or stained.
  “I cleaned my shirt after I fell in the mud.”

Process
• A series of actions used to produce something or reach a goal.
  “Sheep wool is processed several times to prepare it for use.”

Spun
• To draw out, twist, and wind, or to make by doing this.
  “She spun her own yarn.”

Weave
• To make by passing threads or strips over and under each other.
  “She likes to weave scarves for her family.”

Repurpose
• Change for the use in a different manner or purpose.
  “She repurposed her old shirts to make cleaning rags.”

Recycle
• To process in a way for materials to be reused.
  “We recycle glass and plastic bottles every week.”
**DIY LOOM**

**AGES**
8-12 years

**SKILL LEVEL**
Beginner

**DESCRIPTION**
Families will be making their own loom out of cardboard for future weaving projects.

**MATERIALS**

<table>
<thead>
<tr>
<th>Yarn or String</th>
<th>Scissors</th>
<th>Pencil</th>
<th>Cardboard</th>
</tr>
</thead>
</table>

Materials with an (*) are optional, use only if available.

**Background**

A loom works by holding several threads in vertical lines. Another thread is then woven into those threads horizontally by weaving one thread over and under. The threads are then moved and tightened. This process is repeated until the entire piece is filled. This is now called fabric. A loom can be reused over and over once a piece is finished.

**Helpful Tips**

- You can recycle old boxes and have a parent help you cut it into a rectangle or square.
- The longer your loom is, the more thread you will use, so put that into consideration.
- You can use sewing thread or yarn to tie the vertical strings.
- Make sure to measure the sides evenly and cut them 1” down on both ends.
- You can reuse your loom as well!
1. Start by cutting your cardboard into a square or rectangle with straight edges.

2. With a ruler and a pencil, mark 2-inch marks down one side of your cardboard. Repeat this on the opposite side.

3. Once all the marks have been made, cut 1-inch deep cuts where the marks are. Repeat this along the side and on the opposite side as well.

4. Take the end of your yarn and string and pass it through the first cut of your cardboard.

5. Tie the yarn or string to the end piece. Make sure it stays secure.

6. Pull the thread over to the opposite side of the cardboard and slide the yarn in the slit that is parallel to the starting point.

7. Thread the yarn under the flap and through the slit next to it. Repeat this process through the entirety of the cardboard until the yarn meets the opposite side of the starting point.

8. Now using a pair of scissors, cut the string closest to the ball of yarn leaving 3-5 inches of thread for the next step.

9. Tie up the loose end so that the string threaded throughout the cardboard is sturdy and won’t come undone.

10. There is your finished loom. You can now use it to weave.
<table>
<thead>
<tr>
<th>Key Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Loom</strong></td>
</tr>
<tr>
<td>• A device or machine for weaving cloth.</td>
</tr>
<tr>
<td>“Her loom was made out of wood.”</td>
</tr>
<tr>
<td><strong>Thread</strong></td>
</tr>
<tr>
<td>• A fine cord used in sewing, weaving and the like. Thread is usually made of two or more fibers such as cotton twisted together.</td>
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<tr>
<td>“She spun the thread using sheep wool.”</td>
</tr>
<tr>
<td><strong>Vertical</strong></td>
</tr>
<tr>
<td>• Straight up and down.</td>
</tr>
<tr>
<td>“The pencils stood in a vertical position in the cup.”</td>
</tr>
<tr>
<td><strong>Horizontal</strong></td>
</tr>
<tr>
<td>• Parallel to the surface of the earth or to the horizon.</td>
</tr>
<tr>
<td>“The stripes on her shirt were in a horizontal pattern.”</td>
</tr>
<tr>
<td><strong>Weave</strong></td>
</tr>
<tr>
<td>• To make by passing threads or strips over and under each other.</td>
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<tr>
<td>“She likes to weave scarves for her family.”</td>
</tr>
<tr>
<td><strong>Tighten</strong></td>
</tr>
<tr>
<td>• To make or become tight.</td>
</tr>
<tr>
<td>“She tightened her shoelaces so they don’t become undone.”</td>
</tr>
<tr>
<td><strong>Repeat</strong></td>
</tr>
<tr>
<td>• To say or do again.</td>
</tr>
<tr>
<td>“She repeated her question because it was too noisy before.”</td>
</tr>
<tr>
<td><strong>Fabric</strong></td>
</tr>
<tr>
<td>• Cloth that is woven or knitted.</td>
</tr>
<tr>
<td>“Her blanket was made using a lovely floral fabric.”</td>
</tr>
<tr>
<td><strong>Reuse</strong></td>
</tr>
<tr>
<td>• To use again or use more than once.</td>
</tr>
<tr>
<td>“We reused our milk jug to store beans and lentils.”</td>
</tr>
<tr>
<td><strong>Complete</strong></td>
</tr>
<tr>
<td>• Finished; ended.</td>
</tr>
<tr>
<td>“We completed the assignment in one hour.”</td>
</tr>
</tbody>
</table>
LEARNING TO WEAVE

AGES
8-12 years

SKILL LEVEL
Beginner

DESCRIPTION
Families will now utilize the thread and loom they created to start weaving.

MATERIALS

<table>
<thead>
<tr>
<th></th>
<th>DIY Loom</th>
<th>DIY Thread</th>
<th>Scissors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patience</td>
<td>Yarn*</td>
<td></td>
<td></td>
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</table>

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Background

Weaving is done on a machine called a Loom. On a loom you create fabric by interlacing vertical and horizontal lines of thread. You can add different colors or threads as well as weave designs into the fabric. You can create many things through weaving and every piece is unique based on the textures and patterns you made. Other forms of weaving include Knitting, Crocheting, Felting and Braiding.

Helpful Tips

• You can use the T-shirt thread or just use yarn if you have it.
• You can use all the same colored threads or change them as you go to create patterns or gradients.
• Leave the ends of your threads long so they can later be tied together.
• Make sure to have an EVEN number of threads, as you will tie them to one another in the end.
• You can reuse your loom and create many different things.
Procedure

1. Take one piece of thread and take the other end to start. Then place the thread under the first piece of yarn on the loom.

2. Then pull the thread and pass it over the next yarn on the loom.

3. Take the end and place it under the next yarn. Continue to alternate the placement of the thread between the yarn fibers. Say “under, over, under, over” as you go to remember where the thread should go. Continue until all the thread reaches the other end.

4. Repeat this with all the other threads until they fill up half the loom.

5. When you reach halfway, stop and begin to tie the ends of the threads together. Make sure you have an even amount of threads woven so the pairs line up evenly.

6. Repeat this on the other side also. You can trim the ends if they are too long as well.

7. Continue to weave until the loom is completely covered. Tie the ends and trim them.

8. Now fold the cardboard flaps on your loom where the yarn is wrapped. Gently pull out the yarn to remove the weaving from the loom, repeat this on the other side.

9. Fix and move your threads with your fingers to make the weaving uniform.

10. You have completed your first weaving. You can make more using the same loom and other threads/yarns.
Key Vocabulary

Weave
• To make by passing threads or strips over and under each other.
  “She likes to weave scarves for her family.”

Machine
• A device with a system of parts that work together to perform a task.
  “He invented an ice cream machine.”

Loom
• A device or machine for weaving cloth.
  “Her loom was made out of wood.”

Fabric
• Cloth that is woven or knitted.
  “Her blanket was made using a lovely floral fabric.”

Interlace
• To cross over and under as if laced together.
  “She interlaced her hair to form a beautiful braid.”

Thread
• A fine cord used in sewing, weaving and the like. Thread is usually made of two or more fibers such as cotton twisted together.
  “She spun the thread using sheep wool.”

Design
• A pattern.
  “She made a cute kitten design on her phone case.”

Texture
• The feel or look of a surface.
  “The pillow was covered in a texture of sequins.”

Pattern
• An arrangement of shapes, lines, letters, numbers, or colors that can be repeated or used again and again.
  “Chess has a board covered in a checkered pattern.”

Knit
• To make by joining together loops of yarn by hand with long needles or by machine.
  “She was knitting a sweater for her daughter.”

Crochet
• To form by looping thread in a pattern of connected stitches.
  “We learned to crochet in class today.”

Felt
• A cloth made of wool or other animal fibers that have been pressed instead of woven together.
  “Her teddy bear was made using felt.”

Braid
• To weave together three or more pieces of material or strands of hair to form one length that looks like a rope.
  “She likes it when her mom braids her hair.”
DIY Thread

California Content Standards:

<table>
<thead>
<tr>
<th>HE.1.1.8.P</th>
<th>HE.3.7.2.P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify materials that can be reduced, reused, or recycled.</td>
<td>Demonstrate ways to reduce, reuse, and recycle at home, at school, and in the community.</td>
</tr>
</tbody>
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Visual and Performing Arts Standards

<table>
<thead>
<tr>
<th>VA.PK.2.3</th>
</tr>
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<tbody>
<tr>
<td>Experiment with colors through the use of a variety of drawing materials and paints.</td>
</tr>
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DIY Loom

California Content Standards

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Visual and Performing Arts Standards

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<th>VA.K.3.1</th>
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<td>Describe functional and non-utilitarian art seen in daily life; that is, works of art that are used versus those that are only viewed.</td>
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Learning to Weave

California Content Standards

<table>
<thead>
<tr>
<th>HSS-1.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students compare and contrast everyday life in different times and places around the world and recognize that some aspects of people, places, and things change over time while others stay the same.</td>
</tr>
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</table>

Visual and Performing Arts Standards

<table>
<thead>
<tr>
<th>VA.PK.2.7</th>
<th>VA.K.3.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a three-dimensional form.</td>
<td>Describe functional and non-utilitarian art seen in daily life; that is, works of art that are used versus those that are only viewed.</td>
</tr>
</tbody>
</table>