



STEM Challenge: Nature Loom

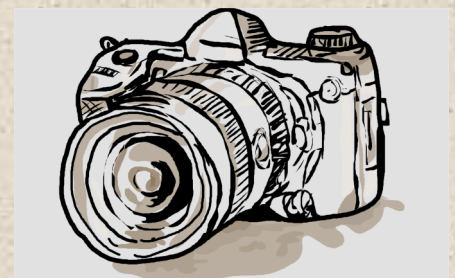
A loom is a hand-operated or power-driven apparatus for weaving fabrics. The purpose of a loom is to hold threads under tension to help the interweaving of threads that are woven in.



Weaving on a loom is done by intersecting the longitudinal threads, the **warp threads** (threads that are thrown across), with the transverse threads, the **weft threads** (threads that are woven). The major parts of a loom are the warp beam, heddles, harnesses, shuttle, reed and takeup roll.

Use the directions on the next page, to design your own nature loom using material from nature. Think about different patterns, colors and nature materials that you can add weave on your loom.

We'd love to see your nature loom designs and learn about the materials you used. Take a photo and send it to us at eplyouthservices@gmail.com!



What you need:

Sticks

Colorful yarn or twine or string

Scissors

Collected natural items (flowers, leavers, feathers, grass etc.)

Recycled materials (strips of different color fabric, ribbons, newspaper or magazine strips)

1. Head outside to collect 3-4 sticks to create the frame of the loom. Sticks that are 1/4 to 3/4 inch in diameter will work well.



2. Create a base for your loom. You can create a triangle, rectangle or other shape base. Wrap the yarn in a crisscross pattern around the corners of the sticks, pull tight and tie off at the back.



3. Once you have your base, wrap a piece of yarn around one of the corners and begin wrapping it around the middle of your loom. Wrapping the yarn around the stick twice will help keep the yarn tight and will prevent it from sliding. Tie the yarn at the corner when you reach the other side of the loom.



4. Head back outside and go on a nature walk to find flowers, feathers, leaves, grass, tree bark etc. Use items that have already fallen to the ground. Collect fun colors or shapes.

5. Weave your materials through the strings of your loom! Make patterns or just have fun weaving.

