Project Idea: Build a Weaving Loom

Recommended for Step 1: Explore crafting and tinkering, Choice 3: Try it out

Setup: Looms can be used to weave clothing, blankets, carpets, and other textiles from string. They're usually made from wood but can be made from simple materials such as cardboard. The vertical strings on the loom are called warp threads. The horizontal strings are called weft threads. Looms can create textiles of all different sizes. For example, a large loom might be used to weave a tapestry, which is a heavy cloth with pictures or patterns that's hung on a wall.

Materials needed:

- 6" x 8" piece of cardboard
- Two 1/2" x 8" strips of cardboard
- Approximately 12 feet of one type of yarn or ribbon
- Approximately 2 feet each of four other types of yarn or ribbon
- Plastic needle

- Masking tape
- Scissors
- Ruler
- Pencil
- Craft glue
- Pony beads (optional)

Activity:

- 1. Prepare the materials. Measure and cut the 12-foot-long piece of yarn or ribbon into foot-long segments for the warp. If you haven't yet, measure and cut the four 2-foot-long pieces of other types of yarn or ribbon for the weft. If needed, measure and cut the cardboard to 6" x 8".
- 2. Build the frame. Hold the cardboard with the 6-inch side horizontal. Measure ½ inch from the top of the cardboard and draw a line. Measure in 1 inch from the side and make marks ½ inch apart all across the top (11–12 on each strip). Cut along each mark to the ½-inch line, creating slits for the warp threads. Then glue a cardboard strip just below the top slits, so that the top edge of the strip aligns with the ½-inch line. Then glue the second strip just above the bottom slit, so the strip's bottom edge aligns with the ½-inch line.
- **3.** Add warp threads. Thread each foot-long piece of yarn or ribbon through a notch on the top of the loom, leaving a tail of about 3 inches and taping it to the back. Thread the other end through the bottom notch directly below, and tape the bottom tail to the back of the loom. Make sure the threads are fairly tight, but not so tight that the yarn or ribbon stretches.
- **4.** Weave your first row. Tie the needle to the end of a weft thread. Slide the needle under the first (leftmost) warp thread and up over the second. Weave under the 3rd thread, over the 4th, and so on across the loom. At the end of the row, pull the yarn through, leaving about a 3-inch tail on the left side to knot around the first warp thread.
 - (Be careful not to pull too hard after each pass or the weaving will cinch in at the middle.)
- **5.** Continue weaving. Weave back in the opposite direction (right to left), going over and under the warp threads to make your second row. Then weave back again, left to right. After 3-4 rows, push the weft up so it's snug. When you've woven the first weft thread, leave a 3-inch tail and cut the needle off. Then add the next weft thread the same way, knotting it to the first warp thread and knotting a 3-inch tail at the end. If you want, add beads into your rows.
- **6.** Take the weaving off the loom. Undo the tape on the back of the loom, and pull the warp threads off the cardboard. Do this very carefully so the weft threads don't come off. Then double knot pairs of the warp threads together at each end. For example, tie the first and second threads together, 3rd and 4th threads together, and continue to create six knots at the top and bottom. Then secure the weft tails on the sides by threading each through the needle and carefully weaving them through the back of the weaving a few times before cutting the threads carefully to keep things neat.