



# Ohio Valley Museum of Discovery

## Weaving



Be a weaver today! In this activity, you will learn how to create beautiful patterns by simply weaving strips of paper together. Your mathematical brain will be hard at work helping you figure out how to create various patterns!

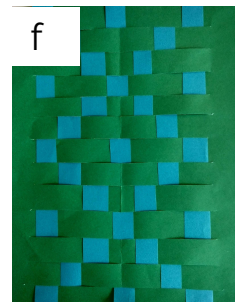
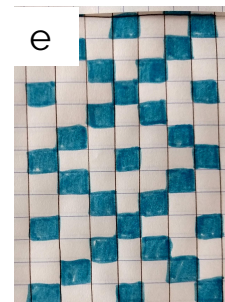
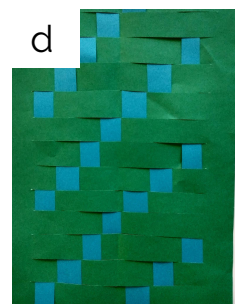
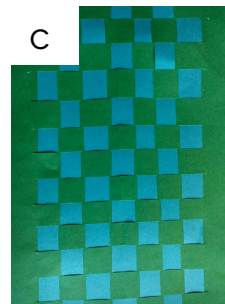
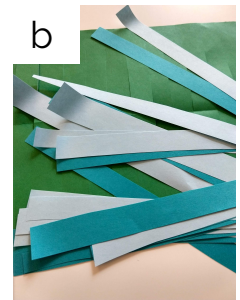
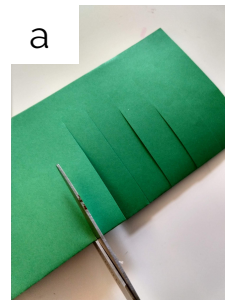
### Why are we doing this activity?

Weaving is usually considered to be an artistic activity, but it is actually so much more than that. When you create a pattern for weaving, you think about how different shapes fit together and how they can be created by weaving fiber (or, in this case, paper). You think about the symmetry of the pattern. Then, as you create the woven item, you carefully follow a pattern and bring it to life in your final product. As you create patterns, you can increase their complexity by changing the pattern or by adding more colors. Additionally, when you create these patterns and start weaving, you might start looking at the world around you in a new way. Where do you see patterns? Are they patterns that could be re-created in a weaving?

Learning about and seeing patterns in the world around you is an important part of thinking and learning about math and its role in our world. Math and weaving also play an important part in many cultures around the world, including Native American cultures. You can learn more at our local Kennedy Museum of Art <http://www.ohio.edu/museum>.

### Supplies Needed

- Two or more sheets of paper, in different colors
- Scissors
- Glue (optional)





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### What to do

1. To get ready to create a simple checkerboard design, choose one piece of rectangular paper to be the base of your weaving.
2. Take the weaving base paper and fold it in half lengthwise. Then cut evenly-spaced slits in the paper, starting at the fold and ending about 1 inch from the opposite edge of the paper (a).
3. Unfold and smooth out the crease.
4. Cut your second paper into strips about 1 inch wide (about the length from the tip of your thumb to the first knuckle). These strips should be as wide or wider than your weaving base (b).
5. Now, start weaving a strip through the base, over and under, all the way across the base. When you start weaving the second strip, weave it *under* then *over*, all the way across. Alternate each strip this way. When you've woven in as many strips as you can, you will have a checkerboard pattern (c).
6. Make a new weaving base and set of strips. What other patterns can you create? Could you make this one (d)?
7. To display your weavings, fold under any loose ends of paper, glue them in place, and then create a frame to display your works of art.

### Want to go further?

- Plan a more complex design by drawing it out first (e, f). You can show where you'll need to weave over and under to help you create the design. Try using more than two colors.
- How are colors and patterns important to you? Try creating a weaving incorporating your school or ancestral family colors/patterns into your weaving.
- Weave with fiber: create a cardboard weaving loom and instead of paper, create your woven designs with various fibers--yarn, ribbon, cut-up t-shirts, felt, leather, anything you can think of!
- Read and learn about cultural weaving traditions around the world.