

## Tessellation Art

**Let's create!** Have you ever been mesmerized by a work of art that was made up of tons of repeating patterns?

Tessellation art is a mashup of math and art, to create hypnotic pieces, and popularized by famous artist M.C. Escher. And while the final result looks like it's complicated, everyone is capable of making their own pieces of tessellation art using just some paper, scissors, and art supplies like markers, paint, or pens. Once you create your tessellation template, you can use it to create all sorts of patterned pieces of handmade art.

Transform a blank sheet of paper into a coloring sheet, transform an old paper bag into unique wrapping paper, create new patterns on worn-out shirts, or really anything you can think of!



### How-to video

<https://youtu.be/uQcqQky6vm8>

### Materials

- Piece of sturdy paper
- Something to create your pattern on! In the video, Kelsey converted an old paper bag into wrapping paper, but you can create your tessellation art on another piece of paper, an old shirt or cloth napkin, test it out on an old box, or whatever else you can think of!
- Ruler
- Scissors
- Tape
- Pen
- Art supplies like markers, crayons, paints or watercolors, etc.

### Steps

1. **Measure and cut your square.** On one piece of paper, measure out and trace a perfect square. You'll be transforming this square into your tessellation template. Kelsey made her square 4 inches by 4 inches, but you can make your square whatever size you'd like.



The larger the square, the larger your tessellation template will be, but you'll be able to fit fewer of your tessellations on whatever you're tracing onto. It might be easier to cut-out your template from a larger square, but it might be difficult to hold a larger template sturdy when it comes to tracing. It all depends on what you're comfortable with! And if your first tessellation template isn't quite the right size, you can always make a new one super quick. Once you've measured and traced, cut your square.

2. **Draw your squiggles.** Once we have our square, we're going to draw two separate squiggles on adjacent edges of the square, adjacent meaning the sides that meet each other. On one edge of your square, draw a squiggle or line starting from close to the edge on one side, up into the square an inch or so, and then back down ending at the other side of the same edge. Do the same on an adjacent edge to your first squiggle.
3. **Cut your squiggles.** Using the lines as a guide, cut out the shapes of your squiggles. Don't throw them away!
4. **Tape your squiggles.** Tape the border of each cut-out squiggle to the opposite edge from your cut-out. To make this a template that can create an infinitely repeating pattern, the squiggle cutouts need to line-up exactly across from where you originally cut them out. To make your tessellation template more accurate, gently fold over the cut-out section to the opposite side (without creating a crease), and using a pencil, create a little mark where the cut begins on one side. Then line your cutout with that mark, and tape it to the edge of the paper. Do the same with the other side. You now have your tessellation template!
5. **Lay and trace.** Lay your tessellation template in the center of a clean piece of paper (or whatever you're tracing onto) and trace around your shape. It might be helpful to trace with a pencil and then go in with a marker or pen afterwards to cement each shape.
6. **Create your pattern.** Once you have your initial template traced, you can create your infinite pattern since your template will fit-in with every edge of your traced line. Move your shape to fit like a puzzle piece into the borders of your traced shape and continue to trace. Trace in as much as you'd like!
7. **Fill in!** Get creative! You can turn your abstract shapes into something completely different, use the shapes as a coloring sheet and color each shape different, create a pattern, or anything else you can think of!
8. **Keep going!** Once you've created your first tessellation, try more! What other patterns can you make?

**Caregiver tip:** Some shapes may work easier for your learner to cut and trace! If the squiggles prove a bit too tricky, try starting off with a simpler round or triangular shape instead of freehanding a squiggle. It might also be helpful to create your tessellation template, trace the entire template onto a separate sheet of paper, and cut out a new whole template instead of trying to keep individual taped pieces sturdy.