

# Tessellation Creation

**Make your own personal pattern of shapes that fit perfectly together like a puzzle.**

A tessellation is a special kind of pattern made of shapes. To be a true tessellation, the shapes must fit together like puzzle pieces following two strict rules. There cannot be any empty spaces between the shapes, and the shapes cannot overlap. Imagine trying to cover a piece of paper with sticky notes. If you line them up perfectly side-by-side, you are creating a tessellation.

You can see tessellations in nature, such as the pattern on a turtle’s shell, the skin of a pineapple, or the honeycomb in a beehive made of interlocking hexagons (six-sided shapes). Chain link fences are tessellations made of diamond shapes.

## What You’ll Need

- Sturdy paper or Cardstock
- Scissors
- Pencil
- Tape
- Crayons, markers, or colored pencils to decorate



# What You'll Do

1. Cut your paper into a square, with four equal sides
2. Lay your square flat. Draw a squiggly, wavy, or zigzag line from the top-left corner across to the top-right corner. Keep it simple for your first try.
3. Carefully cut along your line. Take the piece you just cut off, slide it straight down to the bottom edge of the card, and line up the straight edges perfectly. Do not flip or turn the piece—just slide it like an elevator. Tape it securely to the bottom edge.
4. Now, do the same thing on the sides. Draw a new squiggly line from the top-left corner down to the bottom-left corner.
5. Cut along this new line. Slide this piece straight across to the right edge of the card. Match up the straight edges perfectly without flipping it, and tape it down. You now have your master puzzle piece.
6. Place your strange new shape in the middle of your large drawing paper. Trace around it carefully with a pencil.
7. Pick up your shape, slide it over, and lock it into the outline you just drew. It should fit perfectly like a puzzle. Trace it again. Repeat this until your entire paper is covered in interlocking shapes.
8. Color and decorate your shape and your entire paper as you wish!

