Crafts with rotational symmetry

Make an eight-pointed star

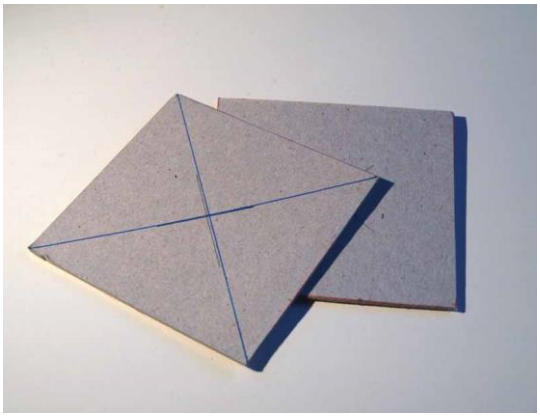
In this short experiment, you can follow exactly how symmetrical shapes are created using rotation.

You need:

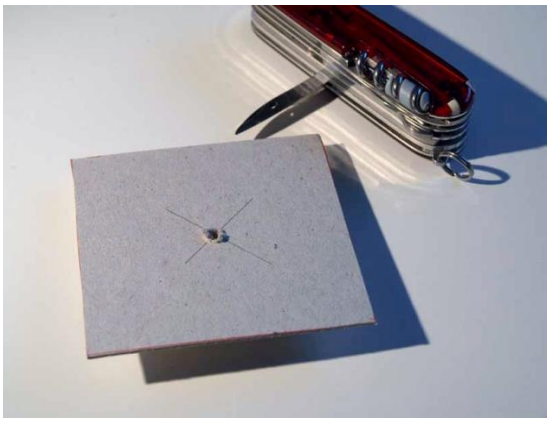
- Cardboard, not too thin
- Ruler, a pair of scissors, a fine-point pen or nail or pocketknife
- A brass fastener for envelopes and a pin or thumbtack

Instructions:

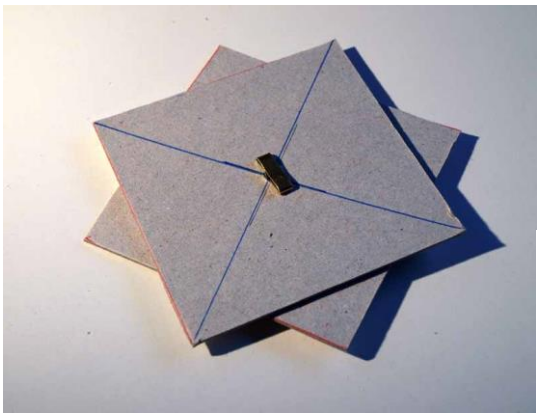
- Cut two cardboard squares the same size and find the center point of the squares by drawing diagonal lines from corner to corner.



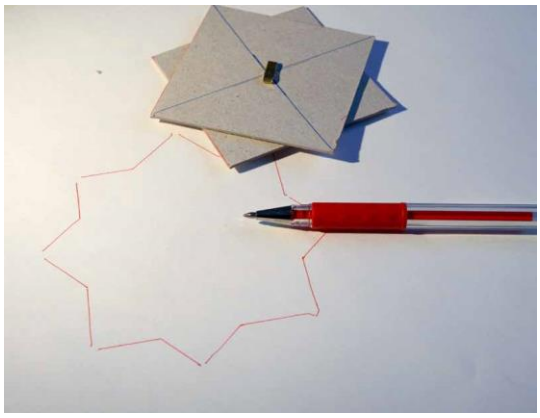
- Bore a small hole through the center point of each square.



- Place the two squares on top of each other and connect them using the brass fastener.
- Rotate the top square 45 degrees to obtain a perfect eight-pointed star.



- You can trace the outline with a pen.



Tip: If you do not have a brass fastener, you can stick a thumbtack or pin through the two squares and into a cork, for example.

Make a snowflake

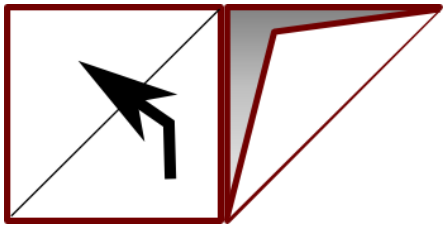
Snowflakes – which are ice crystals – are by nature symmetrical "stars" with six points. No two snowflakes are identical. Unfortunately, they usually melt before we can marvel at all their beauty.
With these instructions you can make long-lasting snowflakes, but with eight sides.

You need:

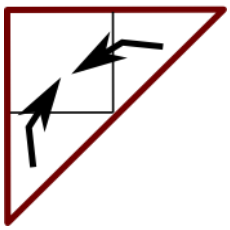
- Square paper – colored, shiny, white, etc.
- Pair of scissors

Instructions:

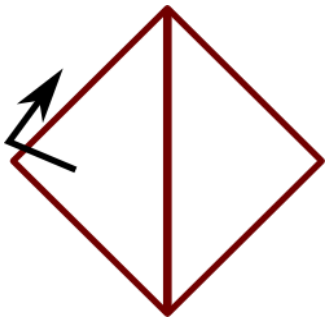
- Fold a square piece of paper into a triangle.



- Then fold the two points toward the inside as shown so that you have a square again.

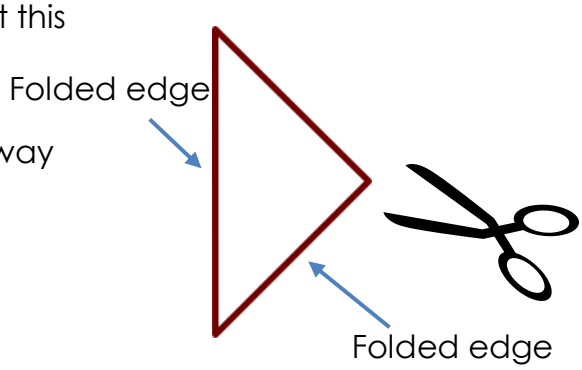


- Now fold the left corner back until it is edge to edge with the right corner.



- You can now use the scissors to cut this folded triangle from all sides.

  Caution: Do not completely cut away the folded edges, or else your snowflake will fall apart.



Your results might look similar to the following picture: