

Crafts with reflection symmetry

It is easy to create figures with reflection symmetry. You do not need a ruler or compass, but only your hands, a pair of scissors, paint supplies, and a sense of proportion.

Create patterns with reflection symmetry using scissors and paper

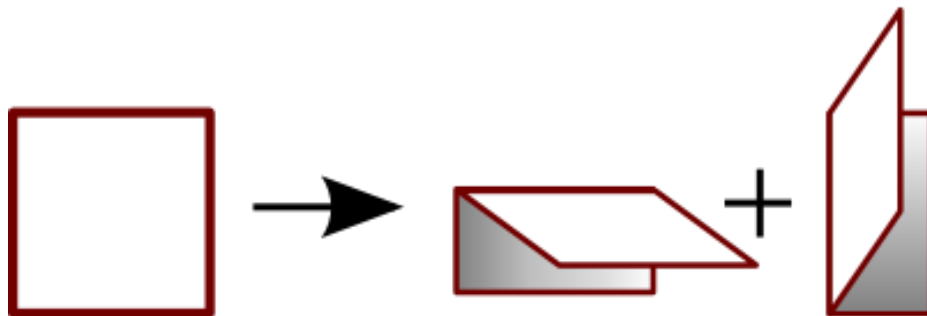
Follow these instructions to create figures with reflection symmetry across two or more axes of symmetry.

You need:

- Paper – square, rectangular, round, or another shape
Tip: The more axes of symmetry you want to have, the thinner the paper should be. That will make cutting easier.
- A good pair of scissors, perhaps a hole punch

Instructions:

- Carefully fold the paper edge to edge, once or twice, as shown here:



Each fold creates an axis of symmetry. The crease in the paper is an axis of symmetry.

- Cut any pattern you wish into the edges of the folded paper.
Tip: You can make the pattern more intricate with a hole punch.
- When you are finished, unfold the paper.
You will see that the cuts you made are arranged symmetrically along the axes of symmetry (the creases in the paper).
If you don't believe it, measure the distances with a ruler.



Additional craft ideas:

- Experiment with diagonal folds too, such as from one corner to the opposite corner.
- If you do not have a pair of scissors, you can tear your pattern by hand.
- To cut a specific figure quickly and easily, you can draw the outline of the figure on one half of the paper.
Remember, the folded edge is the figure's axis of symmetry. Therefore, you need only to draw half of the figure.
Then cut along the outline.



Create inkblot pictures with reflection symmetry

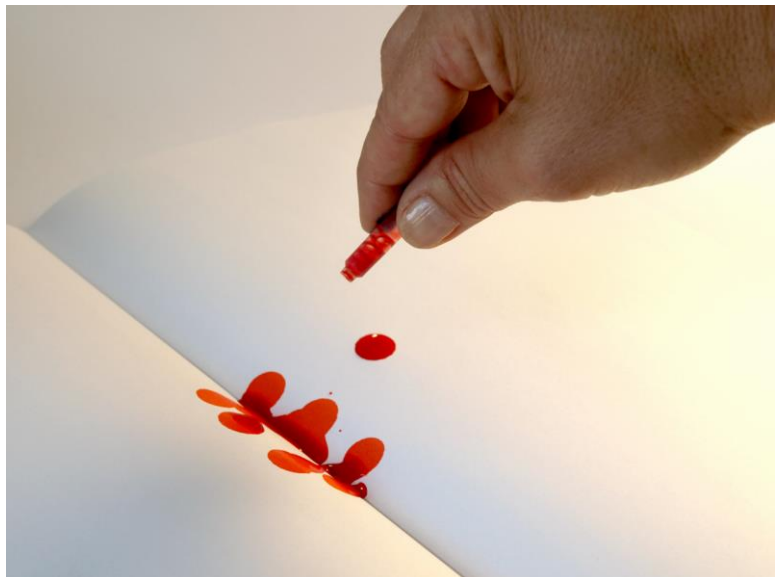
With ink and paper, you can create surprising shapes that are more or less symmetrical with respect to reflection.

You need:

- Ink, such as from an ink cartridge. Or paint from a watercolor set that you spread with a paintbrush; the paint must be mixed with a lot of water so that it flows easily.
- Paper, ideally larger sheets such as size DIN A4 so that the ink does not run off the paper as quickly. The paper should not be too absorbent; blotting paper is a poor choice.

Instructions:

- Fold the paper in half once, and then unfold it and lay it flat on the table like an open book.
- Add a couple of drops of ink or paint about in the middle of the crease.



- Carefully fold the paper and stroke your fingers across the place where you added the ink or paint. You can also press down with your whole hand.
Tip: Depending on the direction in which you stroke your fingers, you can influence the spreading of the ink or paint and the direction in which it flows.
- Unfold the paper and allow the picture to dry.

If you look very closely, sometimes you will notice that inkblot pictures are less symmetrical with respect to reflection than the cutout symmetrical patterns. This is because the ink does not flow very evenly between the paper's surfaces.

Additional options:

- Combine several colors, fold the paper more than once.

For this picture, first the black ink was applied and the paper was folded. Then the paper was unfolded, and a few drops of red ink were added. The paper was folded again and pressed. When it was unfolded, this was how the picture looked:



- Apply the ink not just at the crease, but all over the paper.
- First fold the paper twice, once in one direction and once in the other. Unfold the paper, and apply the ink at and around the point of intersection of the creases. If you now fold the paper again and press on it, the blotted pattern appears around the center.



Folded in two directions: Our inkblot picture looks like a bat, doesn't it?

- Try to create a certain design or shape, such as a face, a lunar rocket, or a flowerpot.