

02.04.20

I can complete a simple symmetrical figure
with respect to a specific line of symmetry.

Recap - what is symmetry?

When something is symmetrical one side is a mirror image of the other side. A *line of symmetry* is the line you can draw to show that both sides are the same.

When you need to draw the other side of a symmetrical shape you can use a mirror to help you.

If something is not symmetrical it is known as *asymmetrical*.

Some shapes are symmetrical and some shapes are not.

Lines of Symmetry

Images can also be symmetrical as you can see in the images to the right.

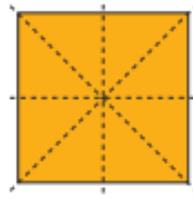
We call these symmetrical figures.



Lines of Symmetry

Lines of symmetry may be horizontal, vertical or diagonal. Some 2D shapes will have no lines of symmetry and some 2D shapes will have multiple lines of symmetry.

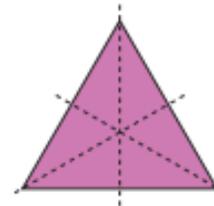
A square has four lines of symmetry.



A rectangle has two lines of symmetry.



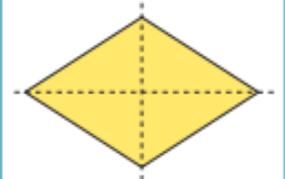
An equilateral triangle has three lines of symmetry.



An isosceles triangle has one line of symmetry.

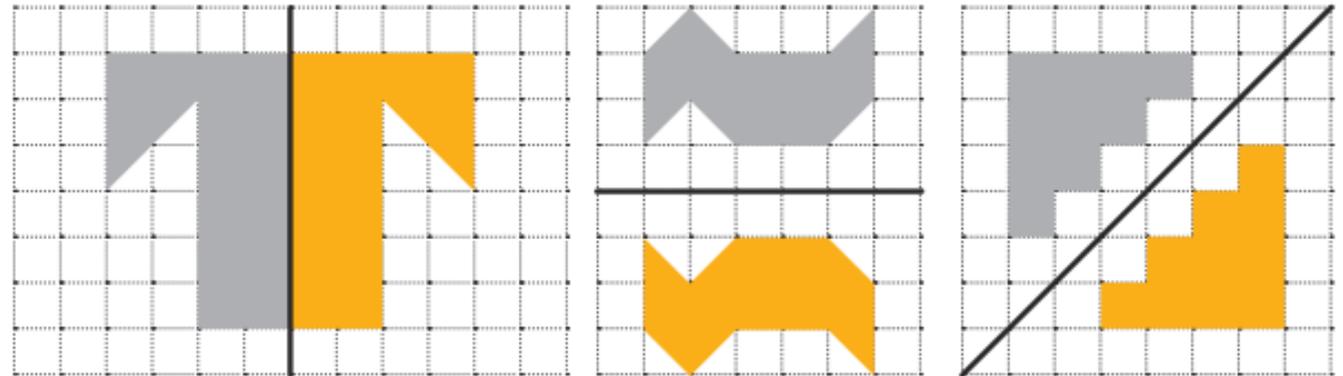


A rhombus has two lines of symmetry.



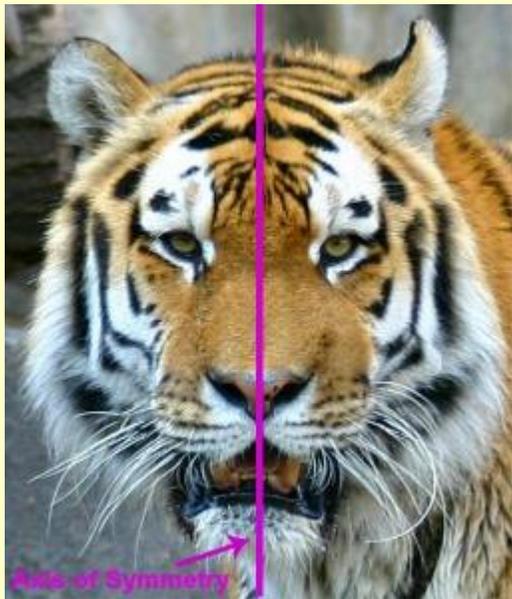
Symmetric Figures

Patterns and shapes can be reflected in a mirror line. Mirror lines can be vertical, horizontal or diagonal.



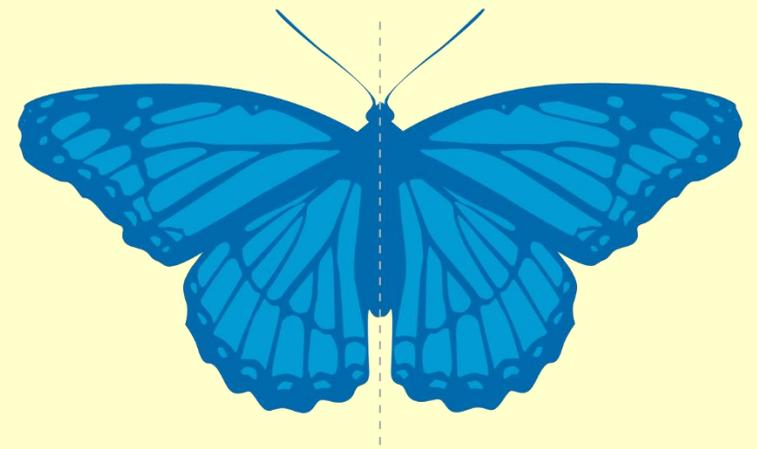
Symmetry in Real Life

Yesterday you would have found lots of symmetrical items around your house. Here are some more examples:



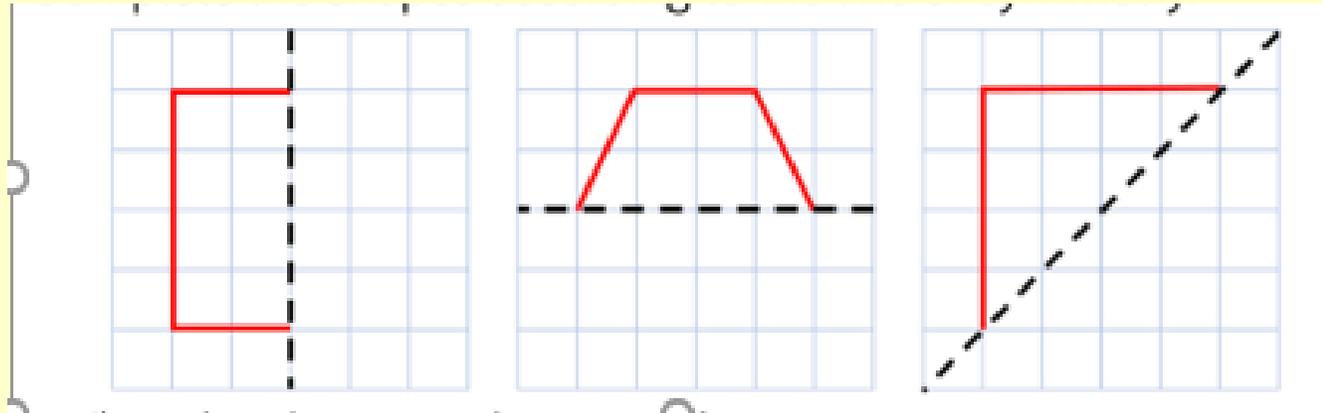
What you may notice is that both sides of the figure have to be identical for it to be a symmetrical figure.

This is why they are often referred to as a mirror image.



Activities:

1. Using grid paper if you have it, draw these shapes and then complete the shape using the same line of symmetry.

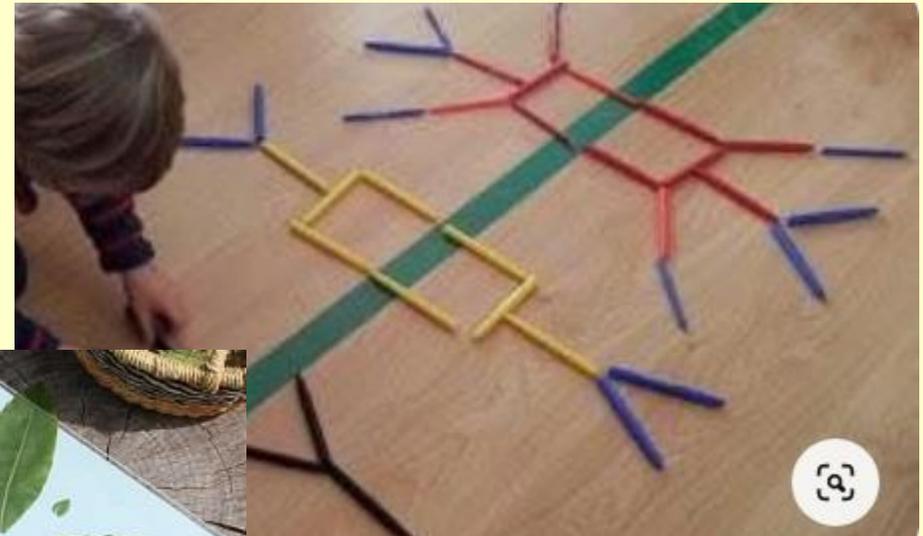


How can you check that both sides are identical? How can you use the squares to help you?

2. Create a line on the table or floor (you could go into the garden and do this outside)

Use some objects around your house or leaves, sticks etc and create a pattern on one side of the line. Now see if you can create that same pattern on the other side of the line so that it is symmetrical. Be creative!

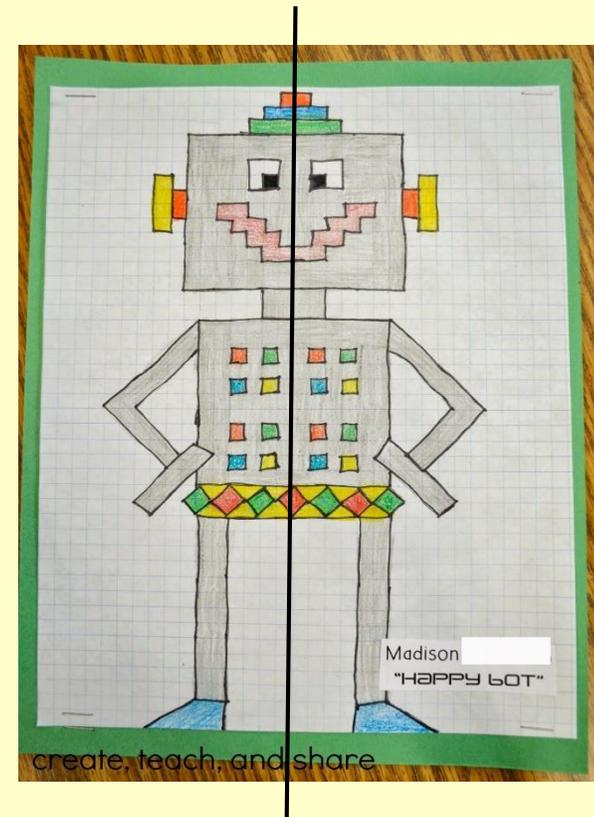
Here are some examples:



2. Draw a straight line down the middle of a page.(you may want to use grid paper)

You are going to draw a symmetrical robot using 2D shapes.

On one side of the line begin to draw half your robot. Then complete it on the other side. Remember both sides must be identical. You might try doing this with a family member and draw one side and see if they can do the other side exactly the same.



Challenge:

How many different symmetrical shapes can you create using the given sides?

