Suncatchers

This activity will give you practice in working with two-dimensional shapes (2D) by studying stained glass designs, then creating your own design.

Information sheet

Stained glass is used to decorate household items and jewellery as well as windows. Here are some examples.

Think about

What geometrical shapes can you see in these designs?

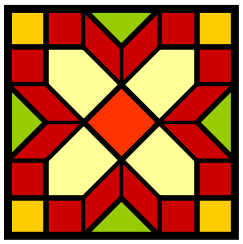
Can you suggest any other examples where stained glass is used?

Suncatchers

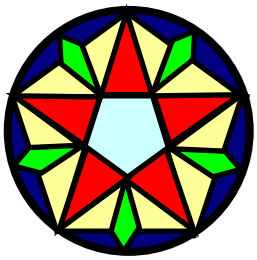
Suncatchers are hung in a window so that sunlight can shine through the glass.

Here are some examples of suncatchers.

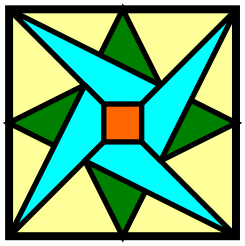
Design A



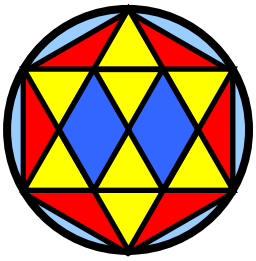
Design B



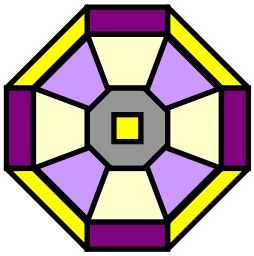
Design C



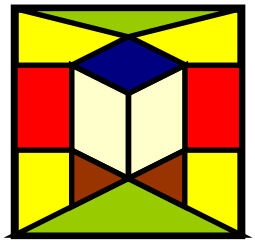
Design D



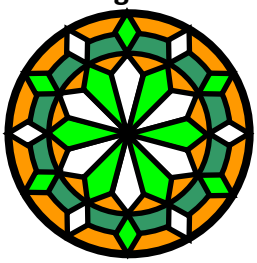
Design E



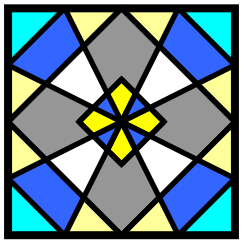
Design F



Design G



Design H



To answer

For each suncatcher design:

1 Write down the names of all the geometric shapes you can see in the design.

2 Write down the number of lines of symmetry.

3 Write down the order of rotational symmetry.

4 Find the smallest angle of rotation that leaves the suncatcher in a position looking identical to its original position.

Try this…

Use geometrical shapes to design a lampshade, candleholder, pendant or suncatcher.

At the end of the activity

What geometric shapes are used in the suncatcher designs?

Many designs have the same order of rotational symmetry and number of lines of symmetry. Design C does not.
How could you change the design to make the numbers the same?