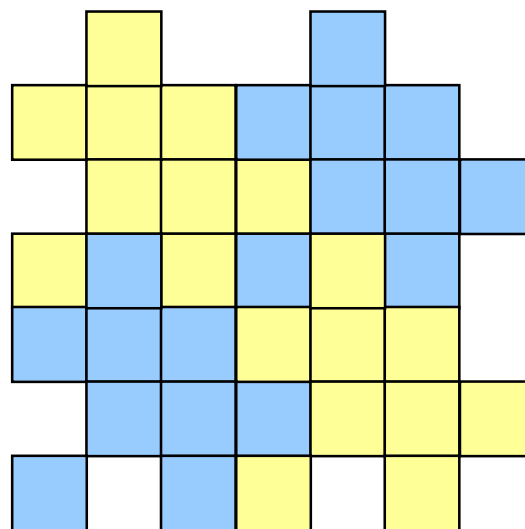




INVESTIGATION



Tessellation squares



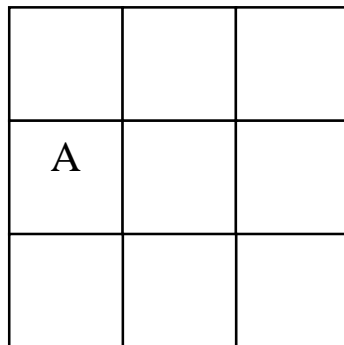
MathSphere

Tessellation Squares Investigation

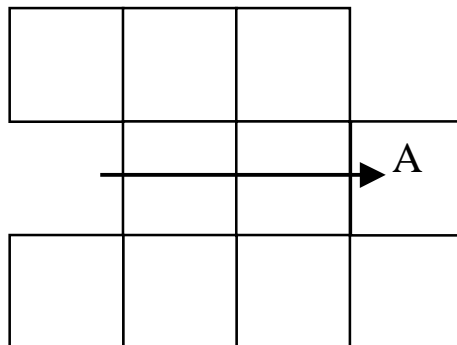
Starter

You need sets of squares on card, scissors and sellotape.

Start by cutting out this square, divided into 9 smaller squares:



Cut out square A from the edge.
Slide it across the shape and stick with sellotape on the other side.

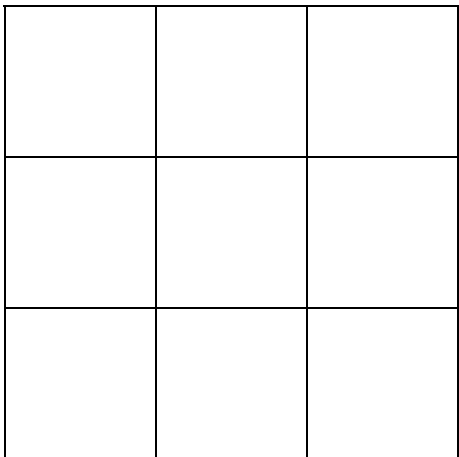
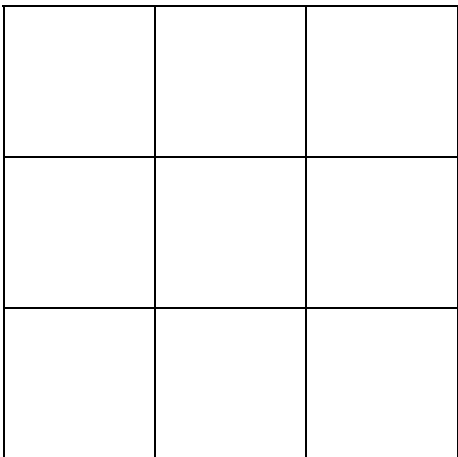
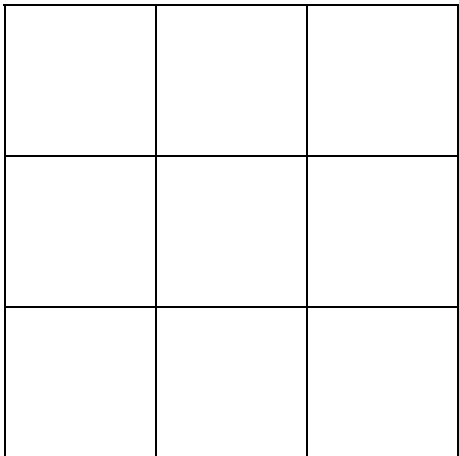
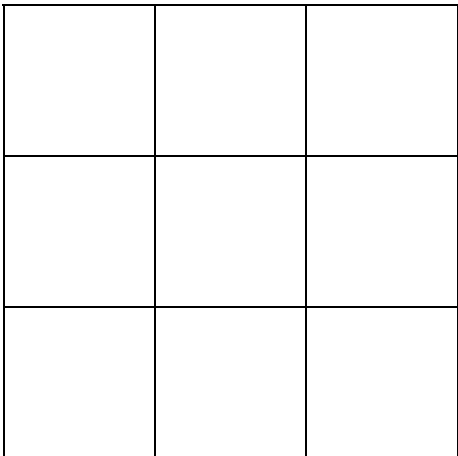
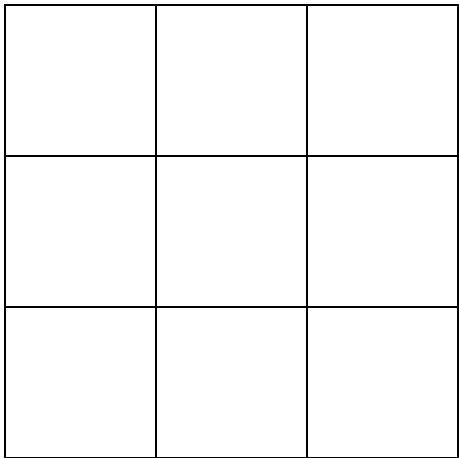
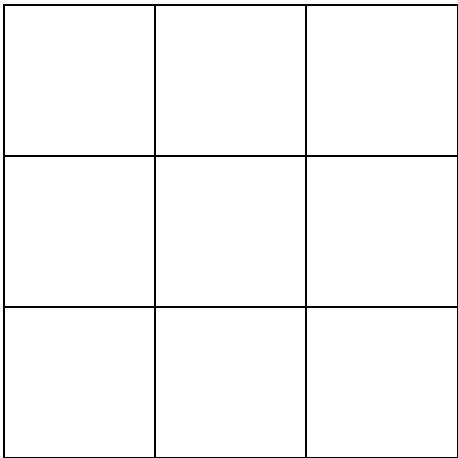


Does the square still tessellate?

Draw round it and see if it fits into a pattern.

Investigate.

Tessellation Squares Investigation



Some Ideas

Work in a methodical way, recording your results carefully as you go.

Make sure that you slide across in a straight line

Take care cutting out the shapes and drawing round them.

Think about how to set out your results clearly.

Try to find as many rules and patterns as you can.

What happens if you do not slide across to the opposite side?

When does a shape still tessellate?

Make patterns of your own.

What would happen if you used a rectangle instead of a square?

What would happen if you cut out a curved shape rather than one with straight lines?

Answer Guide

Children need to be confident and competent using pairs of scissors for this investigation.

It is a good idea to have the squares cut out ready.

By translating one square from one side to the opposite a new shape will be formed which will tessellate.

Children can experiment to see what kind of movement will create a tessellating shape.

Several squares can be cut out to produce the kind of pattern below.

