Making Islamic Tiling Patterns from Folded Paper Shapes

Workshop Activities

Concept & Design
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Making shapes: paper-folding polygons

Always start with a piece of ‘A’ sized paper — this could be any ‘A’ size (it doesn’t have to be A4), depending on how large a shape you want.

a) Square

fold paper

fold line

cut strip off bottom

unfold paper

b) Equilateral triangle

fold in half

fold corner to middle line

fold edge to edge

fold over triangle flap

c) Kite

fold paper

fold line

fold bottom strip
d) Hexagon

A size paper

fold in half, then in quarters and unfold

rotate paper

roll corners A and B along quarter fold lines to make lines AX and BX

fold edge to edge

rotate shape

fold corners to centre using quarter fold lines

flip over

regular hexagon

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e) Octagon

make a square, fold corner to corner and unfold

take the strip, fold in half and unfold

place the strip on one diagonal fold line and fold down corners

repeat with the other diagonal fold line

remove strip and turn over
Making patterns: Islamic tiling patterns using folded paper shapes

Islamic Tiling Pattern #1 using folded 'A' size squares

Instructions for making the pattern above:

• Make sets of 8-pointed star tiles using 2 folded squares (of the same size and colour) for each one.

• Place the 8-pointed star tiles onto a large sheet of paper or card horizontally and vertically as in the pattern above.

• When satisfied with your positioning, glue the tiles onto the sheet of paper or card.

• The gaps will leave the ‘cross’ type tile.
Islamic Tiling Patterns #2 using folded ‘A’ size kites

This is a common Islamic pattern. It is derived from a visual proof of Pythagoras’ theorem by Abu’l Wefa.

*Instructions for making the pattern above:*

- Make 2 sets of folded kite tiles using two different colours of ‘A’ size paper.
- Place kite tiles onto a large sheet of paper or card as in the pattern above. Possibly start by placing 4 kites (2 of each colour) around a point and then place other kites to make your pattern grow.
- When satisfied with your positioning, glue the tiles onto the sheet of paper or card.
- The gaps will be square.
Islamic Tiling Patterns #3 using folded 'A' size equilateral triangles

Instructions for making the pattern above:

• Make a number of folded equilateral tiles using coloured 'A' size paper.

• Place the equilateral tiles onto a large sheet of paper or card as in the pattern above. Possibly start by placing 6 triangles with overlapping edges around in a loop so that a hexagon is formed in the gap in the middle. Then place other triangles to make your pattern grow like the one above.

• When satisfied with your positioning, glue the tiles onto the sheet of paper or card.

• The gaps will be hexagons.
Islamic Tiling Patterns #4 using folded ‘A’ size equilateral triangles

Instructions for making the pattern above:

• Make 2 sets of folded equilateral tiles using different colours of the same ‘A’ size paper.

• Place the equilateral tiles onto a large sheet of paper or card as in the pattern above. Possibly start by placing 6 triangles together to make a hexagon. Then place 6 different triangles on the edges of the hexagon to make a 6-pointed star. Then place 12 triangles like the ones you started with to make your 6-pointed star into a larger hexagon. Continue placing triangles to make your pattern grow like the one above.

• When satisfied with your positioning, glue the tiles onto the sheet of paper or card.
Islamic Tiling Patterns #5 using folded ‘A’ size equilateral triangles

Instructions for making the pattern above:

• Make sets of 6-pointed stars using pairs of folded equilateral tiles made from coloured ‘A’ size paper.

• Place the 6-pointed star tiles onto a large sheet of paper or card horizontally and vertically as in the pattern above.

• When satisfied with your positioning, glue the tiles onto the sheet of paper or card.

• The gaps should be hexagons.
Islamic Tiling Patterns #6 using folded ‘A’ size equilateral triangles

Instructions for making the pattern above:

• Make sets of 6-pointed stars using pairs of folded equilateral tiles made from coloured ‘A’ size paper.

• Place the 6-pointed star tiles onto a large sheet of paper or card diagonally one edge-to-edge as in the pattern above.

• When satisfied with your positioning, glue the tiles onto the sheet of paper or card.

• The gaps should be pairs of rhombi.
Islamic Tiling Patterns #7 using folded ‘A’ size equilateral triangles

Instructions for making the pattern above:

- Make sets of 6-pointed stars using pairs of folded equilateral tiles made from coloured ‘A’ size paper.
- Place the 6-pointed star tiles onto a large sheet of paper or card horizontally and vertically as in the pattern above.
- When satisfied with your positioning, glue the tiles onto the sheet of paper or card.
- The gaps should consist of 3 rhombi at a point.
Islamic Tiling Patterns #8 using folded ‘A’ size hexagons

Instructions for making the pattern above:

• Make 3 sets of folded hexagon tiles made from different coloured A size paper.

• Place the hexagon tiles onto a large sheet of paper or card as in the pattern above.

• When satisfied with your positioning, glue the tiles onto the sheet of paper or card.
**Islamic Tiling Patterns #9 using folded 'A' size hexagons**

**Instructions for making the pattern above:**

- Make a number of folded hexagon tiles made from coloured A size paper.

- Place the hexagon tiles onto a large sheet of paper or card horizontally and diagonally as in the pattern above.

- When satisfied with your positioning, glue the tiles onto the sheet of paper or card.

- The gaps should be equilateral triangles.

- Look at the pattern — you might see it as hexagons surrounded by triangles or 6-pointed stars with hexagons in the middle.