

Tessellations

Activity 4 - Magic Carpets



Regular tessellations are made up from congruent regular polygons. The patterns in a regular tessellation can be formed using only one type of regular polygon. For example, there can be a tessellation made only by repeating the same equilateral triangle over and over in every direction.

Magic carpets can be found in many stories and films, but today we have a mathematical problem to solve! How can we make magic carpets and colour them according to percentages if each carpet is not 100 squares in area?

For this activity you will need: graph paper (with squares), a pencil, a ruler, blue, green, red, orange and black markers or pencil crayons

Instructions:

1. Draw three magic carpets on your graph paper using areas of 60 squares, 40 squares and 80 squares.
2. Design your own pattern using the six colours (blue, green, red, orange, black and white). Your magic carpets must contain the following:

50% Blue Squares

10% Red Squares

10% Green Squares

10% Orange Squares

10% Black Squares

10% White Squares

Can you believe THIS is math?