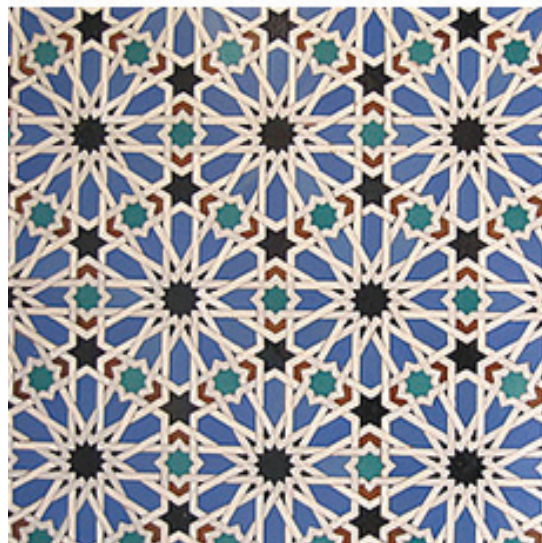


Tessellations

Activity 3 - Islamic Art Tessellations

Have you ever noticed how the tiles are arranged in ceramic floors, on the walls of a bathroom, or how wallpaper and your clothing often have repeating patterns? 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.

Islamic artists have used patterns to decorate walls and floors. These patterns are tessellations. It is the same idea as tiling bathrooms or kitchens; however, tessellations such as this one are far more complex.



Instructions:

1. What geometric shapes can you see in the picture above?
2. If you look at the picture, it seems that it would make sense for it to have been made from the center outwards. In fact, this is normally the way it is done in Islamic art. Find a hexagon and look at how the picture grows around it.
3. Try to make your own art using an initial shape in the center and adding shapes around it in a repeating pattern.

Can you believe THIS is math?