

10.1 Investigation “Islamic Art 6, 8, 12 and 16 Point Star Constructions”

Objective: To appreciate and understand the basic building blocks of Islamic art by studying how to construct a 6 and 8 pointed star and then build upon those constructions to design a 12 and 16 point star.

Materials:

1. Pencil
2. straight edge
3. compass
4. paper
5. computer (Google Presentation)

Procedure:

1. By this point you have the knowledge to make these constructions. You may use the resources below or other resources for help. Think about this.
 - a. If you can make a [hexagon](#) you can extend the sides to make star points.
 - b. An eight pointed star is a [square](#) with another square rotated 45° . Think angle bisector.
 - c. You can double the amount of star points by using angle bisectors.
2. Once you have completed your stars scan them and save them in your Geometry folder as a Google Presentation.

Grade: A full two points will be credited for a good effort on all four stars. Try to be neat and precise. Make sure you have a title and your name on each construction, scan and save in your google docs to share with me.

Resources:

[Islamic Art and Geometric Design](#)

[Origins and meaning of the Eight pointed star](#)

[Evolution of Islamic Geometric Patterns](#)