

Geometry Ornament Project

OBJECTIVES: Create a geometric ornament. It should be 3D and illustrate at least 10 geometric concepts. These concepts must be concepts we have covered thus far (see list below, but could include other concepts in Chapters 1-6).

GUIDELINES:

You will “turn in” two items on Wednesday, December 13th:

- 1) An original ornament that you designed and created. The ornament must be ready for hanging. You may use any materials. Your project should be colorful and creative. Have fun with this project! You can keep your ornament after so you are not actually turning it in, just sharing with the class. 😊
- 2) An information sheet along with your ornament. Your information sheet must include (see example below):
 - a) A photo or diagram of your ornament with the 10 geometric concepts clearly labeled.
 - b) A complete definition of each of the 10 concepts you used.

EVALUATION: Your project will be graded according to the following criteria:

- (1) Each labeled concept is worth 4 points each (40 points total);
- (2) Each definition of the concept is worth 4 points each (40 points total);
- (3) Sharing your ornament on Dec. 13th is worth 10 points;
- (5) Appearance is 10 points.

Total: 100 points. It will be recorded as one test grade.

DUE DATE: 12/13/23: Bring your ornament and information sheet to class on 12/13. We will be sharing the ornaments along with the Geometry concepts in class.

EVALUATION RUBRIC

- My 3D ornament contains 10 geometric concepts that are clearly labeled on my diagram. ___/40
- My information sheet has definitions for the 10 geometric concepts used in my ornament. ___/40
- My ornament was shared in class on Dec. 13th. ___/10
- My ornament has an attractive appearance. ___/10

GEOMETRIC TERMS

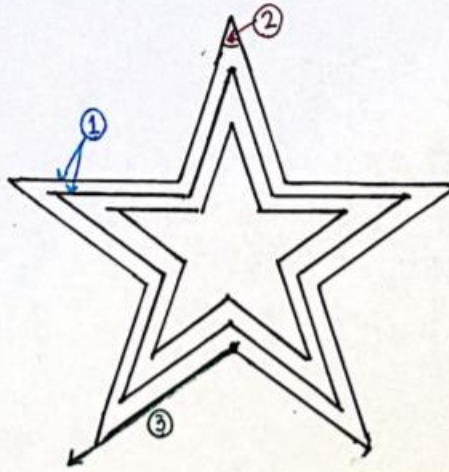
Can use these or ANY other terms from Chapters 1-6

- Point
- Line
- Plane
- Collinear
- Coplanar
- Line Segment
- Congruent
- Midpoint
- Degree
- Ray
- Opposite rays
- Angle
- Sides
- Vertex
- Interior angle
- Exterior angle
- Right angle
- Acute angle
- Obtuse angle
- Concave
- Convex
- Regular polygon
- Alternate interior angles
- Alternate exterior angles
- Consecutive interior angles
- Corresponding angles
- Parallel lines
- Perpendicular lines
- Skew
- Slope
- Transversal
- Equiangular triangle
- Right triangle
- Equilateral triangle
- Scalene triangle
- Isosceles triangle

Example:

Geometry Project

~Mrs. Ross



Definitions:

- ① Parallel lines: Lines are parallel if they are equidistant and will never meet.
- ② Acute angle: An angle whose measure is less than 90° .
- ③ Ray: Part of a line that consists of a point called an endpoint and all the points on a line that extend in one direction.

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