

# Holiday Ornament

## Standards

### Content

Students will be able to...

- Apply mathematical knowledge to real world situations
- Create models of geometrical concepts
- Identify and explain relationships between points, lines, and planes
- Identify and explain relationships among angles
- Identify and explain triangles and their properties
- Identify and explain polygons and their properties

### Process

Students will be able to...

- Demonstrate effective writing skills

## Task Description and Criteria

Happy Holidays! You are the head designer for the Geo-Ornament Corporation and they have asked you to design an ornament for this year's holiday tree decorating contest. If your ornament wins, you will get a holiday bonus! The ornament has to be creative, unique, and well designed. It also must meet all the following requirements:

- The ornament must be created using real world objects
- The ornament must be no bigger than 6" in any direction
- The ornament must contain at least 10 geometrical objects
- The ornament must be light in weight so that it can hang on a tree

In addition to designing your ornament, you must write up a paper explaining the geometry in your ornament. You must include in your paper the descriptions of the geometrical objects you used and how you have used them in your ornament. Your paper must be at least 1 full page typed and double spaced.

Your grade will be based on the following criteria:

- ❖ Ornament Construction (size, weight, durability)
- ❖ Created using geometrical objects (real world)
- ❖ Paper well written (spelling, grammar)
- ❖ Paper length (at least 1 full page)
- ❖ Paper includes object descriptions (at least 10)

## Rubric

Criteria	Poor (0 pts)	Good (2 pt)	Excellent (4 pts)
Ornament Construction	No ornament constructed	Ornament does not fit the size and weight requirements or is not durable	Ornament is appropriate size, weight, and is durable
Created using Geometrical Objects	Did not use any real world objects	Did not use a variety of real world objects	Used a good variety of real world objects
Paper Well Written	No paper provided	Paper has some spelling and grammar errors	Paper has little to no spelling and grammar errors
Paper Length	Paper is not full page length		Paper is at least 1 full page typed and double spaced
Object Descriptions in Paper (x3)	0-4 object descriptions included	5-9 object descriptions are included and accurate	At least 10 object descriptions are included and accurate

/ 28 points

x 2

Total: / 56 points