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

/ 28 points

x 2

Total: / 56 points