

## Sample Proficiency-Based Rubric for Geometry Surface Area and Volume of Three-Dimensional Figures

(Adapted from Sarah Schuhl - Centennial High School)

	<b>Beginning</b>	<b>Approaching</b>	<b>Meets</b>	<b>Exceeds</b>	<b>Masters</b>
<p><b>Identify, classify, model, sketch, and label representations of three-dimensional objects from nets and different perspectives</b> H.2G.1</p>	<ul style="list-style-type: none"> <li>• Does not identify three-dimensional objects from nets</li> <li>• Does not identify three-dimensional objects from different perspectives</li> <li>• Does not demonstrate the ability to sketch and label three-dimensional objects as nets or in three-dimensional space</li> </ul>	<ul style="list-style-type: none"> <li>• Seldom identifies three-dimensional objects from nets</li> <li>• Infrequently identifies three-dimensional objects from different perspectives</li> <li>• Has yet to demonstrate the ability to sketch and label three-dimensional objects as nets or in three-dimensional space</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies some three-dimensional objects from nets</li> <li>• Identifies three-dimensional objects from different perspectives in familiar situations.</li> <li>• Sketch and label three-dimensional objects as nets and/or in three-dimensional space in familiar situations.</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies three-dimensional objects from nets</li> <li>• Identifies three-dimensional objects from different perspectives</li> <li>• Sketch and label three-dimensional objects as nets and in three-dimensional space</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies three-dimensional objects from non-traditional nets.</li> <li>• Identifies complex three-dimensional objects from different perspectives</li> <li>• Sketch and label complex three-dimensional objects as nets and in three-dimensional space.</li> </ul>
<p><b>Identify and apply formulas for surface area of spheres; right solids, including rectangular prisms and pyramids; cones; and compositions thereof. Solve related context-based problems.</b> H.2G.2</p>	<ul style="list-style-type: none"> <li>• Does not apply formulas correctly to find the surface area of:               <ul style="list-style-type: none"> <li>○ spheres</li> <li>○ right solids                   <ul style="list-style-type: none"> <li>▪ rectangular prisms</li> <li>▪ pyramids</li> </ul> </li> <li>○ cones</li> <li>○ cylinders</li> <li>○ compositions</li> </ul> </li> <li>• Does not solve related familiar context-based problems</li> </ul>	<ul style="list-style-type: none"> <li>• Inconsistently applies formulas correctly to find the surface area of:               <ul style="list-style-type: none"> <li>○ spheres</li> <li>○ right solids                   <ul style="list-style-type: none"> <li>▪ rectangular prisms</li> <li>▪ pyramids</li> </ul> </li> <li>○ cones</li> <li>○ cylinders</li> <li>○ compositions</li> </ul> </li> <li>• Minimally able to solve related familiar context-based problems</li> </ul>	<ul style="list-style-type: none"> <li>• Applies formulas for surface area of:               <ul style="list-style-type: none"> <li>○ right solids                   <ul style="list-style-type: none"> <li>▪ rectangular prisms</li> <li>▪ pyramids</li> </ul> </li> <li>○ cylinders</li> </ul>               Applies formulas when given dimensions for surface area of               <ul style="list-style-type: none"> <li>○ spheres</li> <li>○ cones</li> <li>○ compositions</li> </ul> </li> <li>• Solves related familiar context-based problems</li> </ul>	<ul style="list-style-type: none"> <li>• Applies formulas for surface area of:               <ul style="list-style-type: none"> <li>○ spheres</li> <li>○ right solids                   <ul style="list-style-type: none"> <li>▪ rectangular prisms</li> <li>▪ pyramids</li> </ul> </li> <li>○ cones</li> <li>○ cylinders</li> <li>○ compositions</li> </ul> </li> <li>• Consistently solves related context-based problems</li> </ul>	<ul style="list-style-type: none"> <li>• Finds surface area of:               <ul style="list-style-type: none"> <li>○ spheres</li> <li>○ right solids                   <ul style="list-style-type: none"> <li>▪ rectangular prisms</li> <li>▪ pyramids</li> </ul> </li> <li>○ cones</li> <li>○ cylinders</li> <li>○ compositions</li> </ul>               when part of the formula is given and determines the missing areas needed             </li> <li>• Solves related context-based problems in new and complex situations</li> </ul>

