

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

(Adapted from Sarah Schuhl - Centennial High School)

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

