Unit 6: Geometric Modeling

CCSS	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
Arguments for		Explain the formulas	Explain the formulas	Explain the formulas	
volume formula		for <u>all of the</u>	for 2 of the following	for 1 of the following	
(G.GMD.1)		<u>following</u>	<ul> <li>volume of</li> </ul>	<ul> <li>volume of a</li> </ul>	
Use volume formulas		<ul> <li>volume of</li> </ul>	a cylinder	cylinder	
(G.GMD.3)		a cylinder	<ul><li>volume of</li></ul>	<ul> <li>volume of a</li> </ul>	
		<ul> <li>volume of</li> </ul>	a pyramid	pyramid	
		a pyramid	<ul> <li>volume of</li> </ul>	<ul> <li>volume of a</li> </ul>	
		<ul> <li>volume of</li> </ul>	a cone	cone	
		a cone	using dissection	using dissection	
		using dissection	arguments, cross	arguments, cross	
		arguments, cross	sections of three	sections of three	
		sections of three	dimensional objects,	dimensional objects,	
		dimensional objects,	and Cavalieri's	and Cavalieri's	
		and Cavalieri's	principle	principle	
		principle	Use volume formulas	<u>Use volume</u>	
		Use volume formulas	for cylinders,	<u>formulas</u> for	
		for cylinders,	pyramids, cones, and	cylinders, pyramids,	
		pyramids, cones, and	spheres to solve	cones, and spheres	
		spheres to solve	problems in context	to solve problems	
		problems in context	of a situation.		
		of a situation.			
Perimeter and area	Can extend thinking	Using coordinate	Using coordinate	Using coordinate	
	beyond the standard,	geometry and the	geometry and the	geometry and the	
	including tasks that	Pythagorean, slope,	Pythagorean, slope,	Pythagorean, slope,	
	may involve one of	distance and	distance and	distance and	
	the following:	midpoint formulas to	midpoint formulas to	midpoint formulas to	
	the following.	do_both of the	do <b>both</b> of the	do <u>one</u> of the	Little evidence of
		following	following	following	reasoning or
	<ul> <li>Designing</li> </ul>	· ·	J J	J J	application to solve
	<ul> <li>Connecting</li> </ul>	• find the	• find the	• find the	the problem
	<ul> <li>Synthesizing</li> </ul>	perimeter of	perimeter of	perimeter of	•
	<ul><li>Applying</li></ul>	polygons.	polygons.	polygons.	Does not meet the
	Justifying	<ul> <li>find the area <u>of</u></li> </ul>	find the area of	find the area of	criteria in a level 1
		polygons using	triangles and	triangles and	
	Critiquing	triangles and	rectangles	rectangles	
	<ul> <li>Analyzing</li> </ul>	rectangles			
Madalahiasta	<ul> <li>Creating</li> </ul>	Describe abients in	December abicate in	Describe objects in	
Model objects	<ul><li>Proving</li></ul>	Describe objects in	Describe objects in	context of a situation	
(G.MG.1)		context of a situation	context of a situation		
Use density to model		using geometric	using geometric	using geometric	
situations (G.MG.2)		shapes and use them	shapes and use them	shapes and use them	
Use geometry to		to solve problems	to solve problems	to solve problems	
design (G.MG.3)		related to	related to	related to	
		<ul> <li>density based</li> </ul>	area and	area and volume	
		on area and	volume		
		volume	design problems		
		Design problems (i.e.			
		maximum volume,			
		minimum cost, etc.)			
2.5 ( 2					
2-D to 3-D (G.GMD.4)		Identify the shapes	Identify the shapes		
		of two-dimensional	of two-dimensional		
		cross sections of	cross sections of		
		three-dimensional	three-dimensional		
		objects <u>and</u> identify	objects <u>or</u> identify		
		three-dimensional	three-dimensional		
1		objects generated by	objects generated by		
				l .	
		rotations of two- dimensional objects.	rotations of two- dimensional objects.		