



The criteria at each level of proficiency are inclusive of those described at the prior levels.

Outcomes	1	2	3	4
Shape and Space				
<p>Draw and construct nets, interpret views, and determine the surface area of 3-D objects. (SS2, SS3, SS5)</p>	<p>Determine the area of rectangles, triangles and circles</p> <p>Identify the congruent bases and the lateral faces of a given prism</p> <p>Construct and describe a variety of right rectangular and triangular prisms from a net</p>	<p>Use a given net to construct and determine the surface area of simple 3-D objects</p> <p>Construct a 3-D object from a given net</p> <p>Build a 3-D object using concrete materials using the top, front and side views</p> <p>Draw the top, front and side view from a concrete 3-D object</p>	<p>Use a net or views to determine the surface area of a variety of 3-D objects</p> <p>Explain that the surface area of a 3-D object is the sum of the area of its faces</p> <p>Draw multiple nets for right prisms and cylinders and verify by constructing</p> <p>Draw a 3-D object on isometric dot paper given the top, front and side views</p> <p>Draw the top, front and side view from a drawing of a 3-D object</p>	<p>Flexibly apply nets, views, and formulae to determine surface area</p> <p>Predict 3-D objects that can be created from a given net and verify the prediction</p> <p>Predict and draw the top, front and side views that will result from a described rotation</p>



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Shape and Space				
Determine the volume of prisms and cylinders. (SS3, SS4)	<p>Determine the area of triangles, rectangles and circles</p> <p>Determine the volume of right rectangular prisms</p>	<p>Model the connection between the area of the base and the volume of a right prism and cylinder</p> <p>Determine the volume of a right prism or cylinder when given the area of the base and the height</p>	<p>Explain the connection between the area of the base and the volume of a right prism and cylinder and apply the generalization to determine volume</p> <p>Apply the generalized formula to solve a variety of problems</p>	Apply volume and surface area formulae and fluency with number to solve complex problems involving right prisms and cylinders
Demonstrate an understanding of congruence of polygons. (SS6)	<p>Model the congruence of the image and the original shape after a single transformation</p> <p>Label axes, identify the origin and apply the notation of an ordered pair to plot points in all quadrants</p> <p>Perform and describe a single transformation of a shape, and label the vertices of the original and image</p>	Perform and describe successive transformations of a shape, and label the vertices of the original and image	<p>Visualize a combination of transformations of a given original and estimate the resulting location and orientation of the image</p> <p>Explain that congruence is maintained after a series of transformations</p>	<p>Draw and label the vertices of the original shape given the coordinates of the image vertices and a description of the transformations</p> <p>Use congruence and visualization to determine and correct errors of the resultant image of a series of transformations</p>