

<u>Big Idea(s) of 4th nine weeks</u>	<u>Concept(s) of 4th nine weeks</u>	<u>Competencies of 4th nine weeks</u>	<u>Essential Questions of 4th nine weeks</u>
<p>Mathematical relations and functions can be modeled through multiple representations and analyzed to raise and answer questions.</p> <p>Data can be modeled and used to make inferences.</p>	<p>Students will know:</p> <ul style="list-style-type: none"> ● Volume ● Surface Area ● Scatterplots ● Statistics ● Probability ● Deviations 	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Calculate the volume of 3-dimensional figures. ● Calculate the surface area of 3-dimensional figures. ● Graph scatter plots, then use lines of fit to determine equations for the data. ● Calculate statistics, like mean, median and mode for data sets ● Determine and discuss probability of events. ● Look at deviations of data. 	<p>How can data be organized and represented to provide insight into the relationship between quantities?</p> <p>How does the type of data influence the choice of display?</p> <p>How can probability and data analysis be used to make predictions?</p>
<p><u>Unit/Chapter/Selection of Study</u></p> <p>Volume of cylinders Volume of spheres Volume of cones</p> <p>Surface area of cylinders Surface area of spheres Surface area of cones</p> <p>Similar solids</p> <p>Irregular polygons</p>	<p><u>Approx. # of weeks - % of time</u></p> <p>6 weeks</p>	<p><u>PA Academic Standards</u></p> <p>CC.2.3.8.A.1</p> <p>Apply the concepts of volume of cylinders, cones, and spheres to solve real-world and mathematical problems.</p>	<p><u>Assessment Anchors & Eligible Content</u></p> <p>M08.C-G.3.1.1</p> <p>Apply formulas for the volumes of cones, cylinders, and spheres to solve real-world and mathematical problems. Formulas will be provided.</p>

<p>Area and perimeter Circles Arcs length</p>			
<p><u>Unit/Chapter/Selection of Study</u></p> <p>Scatterplots Lines of best fit 2 way tables Mean, Medium, Range, Mode Absolute Deviation Analyzing Distributions</p>	<p><u>Approx. # of weeks - % of time</u></p> <p>3 weeks</p>	<p><u>PA Academic Standards</u></p> <p>CC.2.4.8.B.1 Analyze and/or interpret bivariate data displayed in multiple representations.</p> <p>CC.2.4.8.B.2 Understand that patterns of association can be seen in bivariate data utilizing frequencies.</p>	<p><u>Assessment Anchors & Eligible Content</u></p> <p>M08.D-S.1.1.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative correlation, linear association, and nonlinear association.</p> <p>M08.D-S.1.1.2 For scatter plots that suggest a linear association, identify a line of best fit by judging the closeness of the data points to the line.</p> <p>M08.D-S.1.1.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. Example: In a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.</p> <p>M08.D-S.1.2.1</p>

			Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible associations between the two variables.
--	--	--	--