



UNIT GRAPHIC ORGANIZER

SUBJECT: MATHEMATICS

UNIT: 4

COURSE: SIXTH GRADE

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DATE: September 6th/ 2021

TITLE:

GRAPHICAL STATISTICS, MEAN, MEDIAN, MODE AND PRISMS VOLUME

THROUGHLINES:

- What is the statistic useful for?
- What is the difference between mean, median and mode?
- How do you compare data in dot and box plot?
- Which are the different types of graphics in statistics?
- How can I find the volume of a 3D shape?

GENERATIVE TOPIC



UNDERSTANDING GOALS:

<p>The student will figure out numerical representations of data graphically, including stem-and-leaf plots, and histograms by making predictions from box and dot plots.</p>	<p>The student will understand how to analyze numerical data in dot plots by making inferences about a specific population.</p>	<p>The student will understand how to summarize numerical data, including Mean, Median and Mode by comparing two sets of data displayed in dot plots.</p>	<p>The student will understand how to summarize categorical data with numerical and graphical summaries by analyzing different representations of data.</p>	<p>The student will understand how to find volume of three-dimensional shapes by applying a general formula for finding the volume of different geometric prisms.</p>
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	UNDERSTANDING PERFORMANCES	TIME	ASSESSMENT	
	ACTIONS		WAYS	CRITERIA
Exploration Stage	<ul style="list-style-type: none"> • To pose a survey. • To introduce how to analyze and compare data and their application in real life. • To find measures of the data such as the mean and the median, and use them to solve problems. • To use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. • To build 3D figure given the respective net. • To build rectangular prisms with little cubes. 	1 week	<ul style="list-style-type: none"> • Analyzing possible difficulties that can appear on the activities. • Giving arguments of... • Drawing a figure on a grid and then to exchange the figure making a survey using digital resources, graphically modeling the mean. • Measuring the difference between the centers by expressing it as a multiple of a measure of variability. • Summarizing categorical data with numerical and graphical summaries • Solving real-world and mathematical problems involving volume of three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. <p>Virtual Apps</p> <ul style="list-style-type: none"> • www.myhrw.com (GO MATH Platform) • Math Antics Videos (Youtube and Edpuzzle) • Geogebra App (Model 3D figures) • Toy Teather Build (Virtual Lego Builder) 	<ul style="list-style-type: none"> - Properly argue problem solving. - Proposing problematic situations with specific topics.
Guided Stage	<ul style="list-style-type: none"> • To compare the data given in dot or box plots. • To summarize numeric data, including the mean and median • To represent numeric data graphically, including box plots, stem-and-leaf plots, and histograms • To interpret numeric data summarized in dot plots • To summarize categorical data with numerical and graphical summaries 	6 weeks	<ul style="list-style-type: none"> • Comparing two sets of data displayed in dot plots • Comparing two sets of data displayed in box plots • Summarizing numeric data with numerical summaries, including the mean and median. • Representing numeric data graphically, including box plots, stem-and-leaf plots, and histograms. • Participating in group with the teacher and individual workshop. • Solving activities from the book "GO MATH LEVEL 7" <p>Virtual Apps</p> <ul style="list-style-type: none"> • Google Forms (To create digital surveys and generate circle and bar graphics). • SketchUp (Web platform to design and model 3d figures). • Math Stack (Motivation game) 	<p>Using the appropriate materials for the activities. Proposing and solving problems with specific process. Drawing accurate Representations by using appropriate measures and materials.</p>

<p>Learning Evidence</p>	<p><u>Synthesis project</u></p> <p>Students will apply their knowledge to conduct their very own research study. They will decide on a question to conduct their study at class. They will record their data and use graphs to represent their findings to the class.</p>	<p>1 week</p>	<ul style="list-style-type: none"> • Creating either a categorical question or a numerical question. (Statistical Question- Was your question categorical or numerical?) • Collecting data from their question and find the mean, median, mode, and range. • Comparing data displayed in Dot Plots and Box Plots. • Showing and socializing the outcome of their project to their classmates and teacher. 	<p>Synthesizing the main topics as a product. Discusses the result of the exercises.</p>
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