

DATA ANALYSIS, STATISTICS, AND PROBABILITY

GRADE	CONTENT	SKILLS	LESSON CORRELATION
Essential Question: How can we collect and use information in a way that reflects God's orderly creation?		Big Idea: Information from God's vast creation can be measured, recorded, and displayed to assist in understanding and decision making.	
K	Data	K.DSP.1 Classify objects into given categories; count the number of objects in each category and sort the categories by count up to 10 (K.MD.3) A. Solve problems by classifying objects into given categories B. Solve problems by counting the number of objects in each category C. Solve problems by sorting the categories by count for up to 10 objects 3.0 Items include ALL of the following: <ul style="list-style-type: none"> • Solve problems by classifying objects into given categories • Solve problems by counting the number of objects in each category • Solve problems by sorting the categories by count for up to 10 objects 2.0 items include at least one of the following: <ul style="list-style-type: none"> • Solve problems by classifying objects into given categories • Solve problems by counting the number of objects in each category • Solve problems by sorting the categories by count for up to 10 objects • Solve problems by sorting objects into same groups 	4.4, 4.5
1	Data	1.DSP.1 Organize, represent, compare, and interpret data with up to three categories (1.MD.4) A. Solve problems by organizing data with up to three categories B. Solve problems by representing data with up to three categories C. Solve problems by comparing and interpreting data with up to three categories 3.0 Items include ALL of the following: <ul style="list-style-type: none"> • Solve problems by organizing data with up to three categories • Solve problems by representing data with up to three categories • Solve problems by comparing and interpreting data with up to three categories 2.0 items include at least one of the following: <ul style="list-style-type: none"> • Solve problems by organizing data with up to three categories • Solve problems by representing data with up to three categories • Solve problems by comparing and interpreting data with up to three categories • Solve problems by organizing data with two categories 	11.1, 11.2, 11.3, 11.4, 11.5
2	Data	2.DSP.1 Generate measurement data by measuring lengths of several objects to the nearest whole unit; show the measurements by making a line plot (2.MD.9) A. Solve problems that generate measurement data by measuring lengths of several objects to the nearest whole unit B. Solve problems that show the measurements by making a line plot 3.0 Items include ALL of the following: <ul style="list-style-type: none"> • Solve problems that generate measurement data by measuring lengths of several objects to the nearest whole unit • Solve problems that show the measurements by making a line plot 2.0 items include at least one of the following: <ul style="list-style-type: none"> • Solve problems that generate measurement data by measuring lengths of several objects to the nearest whole unit • Solve problems that show the measurements by making a line plot • Solve problems that generate measurement data by measuring lengths of several objects • Solve problems that show the measurements using drawings or models 2.DSP.2 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories; solve simple addition, subtraction, and comparison problems using information in a bar graph (2.MD.10) A. Solve problems by drawing a picture graph to represent a data set with up to four categories B. Solve problems by drawing a bar graph (with single-unit scale) to represent a data set with up to four categories C. Solve problems with simple addition using information in a bar graph D. Solve problems with simple subtraction using information in a bar graph E. Solve problems through comparison using information in a bar graph 3.0 Items include ALL of the following: <ul style="list-style-type: none"> • Solve problems by drawing a picture graph to represent a data set with up to four categories • Solve problems by drawing a bar graph (with single-unit scale) to represent a data set with up to four categories • Solve problems with simple addition using information in a bar graph • Solve problems with simple subtraction using information in a bar graph • Solve problems through comparison using information in a bar graph 2.0 items include at least one of the following: <ul style="list-style-type: none"> • Solve problems by drawing a picture graph to represent a data set with up to four categories • Solve problems by drawing a bar graph (with single-unit scale) to represent a data set with up to four categories • Solve problems with simple addition using information in a bar graph • Solve problems with simple subtraction using information in a bar graph • Solve problems through comparison using information in a bar graph • Solve problems by drawing a picture graph to represent a data set with two categories • Solve problems by drawing a bar graph to represent a data set with two categories 	13.6, 13.7 13.1, 13.2, 13.3, 13.4, 13.5

		<ul style="list-style-type: none"> Solve problems using information in a bar graph 	
Assessments		Math Interviews; Graphs; Written Assessments	
3	Data	<p>3.DSP.1 Draw and interpret scaled picture and bar graphs to represent a data set (3.MD.3)</p> <p>A. Solve problems by drawing and interpreting scaled picture graphs to represent a data set</p> <p>B. Solve problems by drawing and interpreting scaled bar graphs to represent a data set</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> Solve problems by drawing and interpreting scaled picture graphs to represent a data set Solve problems by drawing and interpreting scaled bar graphs to represent a data set <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> Solve problems by drawing and interpreting scaled picture graphs to represent a data set Solve problems by drawing and interpreting scaled bar graphs to represent a data set Solve problems by drawing a picture graph or bar graph with a single-unit scale and up to four categories Solve problems by interpreting a picture graph or bar graph with a single-unit scale and up to four categories <p>3.DSP.2 Measure length using rulers marked with halves and fourths of an inch and centimeters; show data by making a line plot (3.MD.4)</p> <p>A. Solve problems of length measurement by using rulers marked with halves and fourths of an inch</p> <p>B. Solve problems of length measurement by using rulers marked with centimeters</p> <p>C. Solve problems by making a line plot to display data</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> Solve problems of length measurement by using rulers marked with halves and fourths of an inch Solve problems of length measurement by using rulers marked with centimeters Solve problems by making a line plot to display data <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> Solve problems of length measurement by using rulers marked with halves and fourths of an inch Solve problems of length measurement by using rulers marked with centimeters Solve problems by making a line plot to display data Solve problems by measuring lengths of several objects to the nearest whole unit Solve problems by interpreting information on a line plot 	14.1, 14.2, 14.3, 14.4 14.5, 14.6, 14.7
		4	Data
5	Data	<p>5.DSP.1 Use basic operations to solve problems using a line plot to display a data set of measurement in fractions of a unit (halves, fourths, and eighths) (5.MD.2)</p> <p>A. Solve problems using basic operations and a line plot to display a data set of measurement in fractions of a unit (halves, fourths, eighths)</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> Solve problems using basic operations and a line plot to display a data set of measurement in fractions of a unit (halves, fourths, eighths) <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> Solve problems using basic operations and a line plot to display a data set of measurement in fractions of a unit (halves, fourths, eighths) Solve problems using basic operations and a line plot to display a data set of measurement <p>5.DSP.2 Find the mean, median, mode, and range of a given set of data</p> <p>A. Solve problems by finding the mean of a data set</p> <p>B. Solve problems by finding the median of a data set</p> <p>C. Solve problems by finding the mode of a data set</p> <p>D. Solve problems by finding the range of a data set</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> Solve problems by finding the mean of a data set Solve problems by finding the median of a data set Solve problems by finding the mode of a data set Solve problems by finding the range of a data set <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> Solve problems by finding the mean of a data set Solve problems by finding the median of a data set Solve problems by finding the mode of a data set Solve problems by finding the range of a data set Solve problems by finding the average of two numbers (divide sum by 2) 	11.6, 11.7 Additional Topic: Find the Mean, Find the Median and Mode, and Find the Range. Also see <i>Big Ideas Math: Modeling Real Life, Grade 6</i> , © 2019 in Lessons 9.2, 9.3, and 9.4.
Assessments		Written Assessments; Journal Entries; Class Discussions; Diagrams; Virtual Models	
6	Statistics and Probability	<p>6.DSP.1 Develop understanding of statistical variability (6.SP.1,2,3)</p> <p>A. Solve problems using statistical variability</p> <p>3.0 items include ALL of the following:</p>	9.1, 9.2, 9.3, 9.4, 9.5, 10.1, 10.3, 10.4, 10.5

		<ul style="list-style-type: none"> Solve problems using statistical variability <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> Solve problems using statistical variability Solve problems using information from bar graphs, line plots, and picture graphs <p>6.DSP.2 Summarize and describe distributions (6.SP.4,5)</p> <p>A. Solve problems that describe distribution (e.g., mean, median, mode, range)</p> <p>B. Solve problems that summarize distribution</p> <p>3.0 items include all of the following:</p> <ul style="list-style-type: none"> Solve problems that describe distribution (e.g., mean, median, mode, range) Solve problems that summarize distribution <p>2.0 items include one of the following:</p> <ul style="list-style-type: none"> Solve problems that describe distribution (e.g., mean, median, mode, range) Solve problems that summarize distribution Solve problems using bar graphs, line plots, and picture graphs 	9.1, 10.1, 10.2, 10.3, 10.4, 10.5
7	Statistics and Probability	<p>7.DSP.1 Use random sampling to draw inferences about a population (7.SP.1,2)</p> <p>A. Solve problems using random sampling to draw inferences about a population</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> Solve problems using random sampling to draw inferences about a population <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> Solve problems using random sampling to draw inferences about a population Solve problems by recognizing difference between random sample and nonrandom sample Solve problems by recognizing differences between population and random sample group Solve problems by making inferences about a population <p>7.DSP.2 Draw informal comparative inferences about two populations (7.SP.3,4)</p> <p>A. Solve problems that compare inferences between two populations</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> Solve problems that compare inferences between two populations <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> Solve problems that compare inferences between two populations Solve problems by recognizing differences between population and random sample group Solve problems by making inferences about a population <p>7.DSP.3 Investigate chance processes and develop, use, and evaluate probability models (7.SP.5,6,7,8)</p> <p>A. Solve problems that investigate chance processes by developing, using, and evaluating probability models</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> Solve problems that investigate chance processes by developing, using, and evaluating probability models <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> Solve problems that investigate chance processes by developing, using, and evaluating probability models Solve problems by creating chance processes that explore probability (e.g., rolling a six on a die) Solve problems by applying investigated data to a repeat experiment Solve problems by evaluating the results of chance processes 	8.1, 8.2 8.3, 8.4 7.1, 7.2, 7.3, 7.4
8	Statistics and Probability	<p>8.DSP.1 Investigate patterns of association in bivariate data (8.SP.1,2,3,4)</p> <p>A. Solve problems that show patterns of association between two data sets (e.g., scatterplot, linear association, outliers, clustering)</p> <p>3.0 items include all of the following:</p> <ul style="list-style-type: none"> Solve problems that show patterns of association between two data sets (e.g., scatterplot, linear association, outliers, clustering) <p>2.0 items include one of the following:</p> <ul style="list-style-type: none"> Solve problems that show patterns of association between two data sets (e.g., scatterplot, linear association, outliers, clustering) Solve problems by graphing data and identifying whether the relationship is positive, negative, or neither Solve problems by graphing given data on a coordinate plane 	6.1, 6.2, 6.3, 6.4
Assessments		Open-ended Projects and Problems; Written Assessments; Journal Entries; Class Discussions; Oral Reports; Visual and Virtual Models	