

Data Analysis & Probability

Connecting Math Ideas: Statistics help us analyze, interpret and present large quantities of numerical data.

Teaching Tip: Teaching probability and fractions simultaneously strengthens students’ understanding of each concept. Also, connecting statistics to other subjects throughout the year broadens students understanding of data. For example, do a statistical analysis of the length or number of syllables in a set of vocabulary words (mode, median, mean and range). Study graphs in social studies and science books. Create graphs using classroom data.

Probability	Statistics	Graphing
<p>This is what your students should be able to articulate</p> <ul style="list-style-type: none"> • probability is used every day • probability is expressed as a fraction, decimal or percent • probability exists between 0 (impossible) and 1(certain) 	<p>This is what your students should be able to articulate</p> <ul style="list-style-type: none"> • range describes the spread of the data and can be calculated by subtracting the smallest value from the largest value • average or central tendency is a number that describes a typical value for the data. It may be expressed as... <ul style="list-style-type: none"> ○ mode (What number appears most often?) ○ median (What number is in the middle when the values are arranged in numerical order?) or ○ mean, (What number is the result of the sum of the values divided by the number of values?) 	<p>This is what your students should be able to articulate</p> <ul style="list-style-type: none"> • there are many different kinds of graphs to help us display data
<u>Probability and You</u>	<u>Calculating Mean, Median, Mode and Ranges</u>	<u>Tornados in the US: A Picture Graph</u>
<u>Probability Intro</u>	<u>Understanding Mean, Median, and Range Helps You Learn How to do a Statistical Analysis</u>	<u>Comparing Picture, Line and Bar Graphs</u>
<u>Probability is always between 0 and 1</u>	<u>Statistical Analysis Puzzle</u>	<u>Circle Graphs</u>
<u>Probability</u>	<u>Statistics: Mean or Average</u>	<u>Plotting World Water</u>
<u>Probability and the U.S. map</u>	<u>Standard Deviation</u>	<u>Scatter Plots</u>
<u>Probability with Spinners</u>	<u>A Jelly Bean Counting Contest</u>	<u>Box & Whisker Plot</u>

<u>Calculate Probability Dependent Events</u>		<u>Stem & Leaf / Box & Whisker Plots</u>
<u>Experimental Probability</u>		
<u>Theoretical Probability</u>		
<u>Successive Events: Independent and Dependent</u>		