Problem Solving Strategies

Connecting Math Ideas: Exposing students to different problem- solving strategies encourages the development of a variety of thinking skills.

Teaching Tip: Teach problem solving strategies so your students understand there are many ways to solve math problems.

Draw a Diagram This is what your students should be able to articulate • standard diagrams such as number lines, circles, Venn, Carroll, Singapore bars can be used to solve problems • sketches.can give important insights into a problem	**Guess and Check/Make a Table** This is what your students should be able to articulate • guess and check is more efficient when students make a table	**Additional Strategies** This is what your students should be able to articulate • there are many ways to solve problems **Proportion** This is what your students should be able to articulate • two equal fractions create a proportion • proportions are useful in a variety of situations • cross multiply to create and equation
		percent problems are proportion problems **with one denominator as 100**
Napier Timeline Puzzle	Hypatia	Measuring Angles
Napier's Intellectual Children	Problem Solving Strategy: Guess and Check	Proportions at the Amusement Park
Creating a Spinner	Solving Postage Stamp Riddles	Carnival Game: Cross Multiplication
Union of Events - Probability with Spinners	Problem Solving: Make a Table	Proportions: Scale
Probability: Complementary Events	Guess & Check vs Simultaneous Equations	Proportions: Scale of Miles
Common Multiples: Intructional	Computational Vocabulary	Estimate the distance traveled on the Underground Railroad. Inspired by *Aunt Harriet's Underground Railroad in the Sky* by Faith Ringgold
Common Multiples: Practice	Using Area and Perimeter	
Common Multiples: Assessment	Multiple Solutions	

Venn Diagrams with Number Sets	Bicycles & Tricycles	Proportion: Indirect measurement
Problem Solving Strategy: Special Diagrams - Venn & Carroll	Alia Muhammad Baker, the Chief Librarian...Inspired by *The Librarian of Basra: A True Story* from Iraqby Jeanette Winter	Proportions: Sampling
Mathematical Modeling: Girls and Boys	Pancake Breakfast Plans	Percent Designs
Mathematical Modeling: Parts-to-Whole with $	Statistics: Mean or Average	
	Jelly Bean Counting Contest	
	Circle Design	