

Unit Plans

Subject: Mathematics
Teachers: Michele Allen

Grade: Three
Year: 2013-2014

Timeline	Theme / Topic / Concepts / Structures	Dimensions / Focus / Objectives / Learner Expectations	Resources	Instructional Procedures / Methods	Evaluation Techniques
September	<p>COLLECTING & ANALYZING DATA LOCATING/ MAPPING (2 Weeks)</p> <p>PATTERNING (3 Weeks)</p>	<p>Students will:</p> <ul style="list-style-type: none"> • collect first and second-hand data, displaying the results in more than one way • interpret data to make predictions <p>Students will:</p> <ul style="list-style-type: none"> • investigate, establish and communicate rules for numerical and non-numerical patterns, including those found in the home • use pattern rules to make predictions • use numbers and direction words to describe the relative positions of objects in one dimension, using everyday contexts 	<ul style="list-style-type: none"> • Math Makes Sense • Math Focus • Manipulatives • Diagnostic Math Program Division One 	<ul style="list-style-type: none"> • Teacher Modeling and demonstration • Hands-on manipulation • Investigation • Writing • Cooperative work • Student demonstrations/presentations • Peer teaching • Games • Individual work 	<ul style="list-style-type: none"> • Unit tests/quizzes • Notebook assignments • Extended problem solving projects • Student Products and Portfolios • Teacher Observation • Anecdotal records • Checklists • Self-analysis • Observation records • Conference prompts
October	<p>NUMBERS to 1000 (5 weeks)</p>	<p>Students will:</p> <p>Say the number sequence 0 to 1000 forward and backward by:</p> <ul style="list-style-type: none"> -5s, 10s, or 100s using any starting point -3s, using starting points that are multiples of 3 -4s, using starting points that are multiples of 4 -25s, using starting points that are multiples of 25 -Represent and describe numbers to 1000, concretely, pictorially and symbolically -Compare and order numbers to 1000 -Estimate quantities less than 1000 using referents -Illustrate, concretely and pictorially the meaning of place value for numerals to 1000 			
November	<p>ADDITION / SUBTRACTION (5 Weeks)</p>	<p>Students will:</p> <p>Describe and apply mental mathematics strategies for adding two 2-digit numerals, such as adding from left</p>	<p>Continued use throughout the year.</p>	<p>Continued use throughout the year.</p>	<p>Continued use throughout the year.</p>

<p>December</p>	<p>MEASUREMENT (4 Weeks)</p>	<p>right, taking one addend to the nearest multiple of ten and then compensating, and using doubles. -Describe and apply mental mathematics strategies for subtracting two 2-digit numerals, such as taking the subtrahend to the nearest multiple of ten and then compensating, thinking of addition and using doubles -Apply estimating strategies to predict sums and differences of two 2-digit numerals in a problem-solving context. -Demonstrate an understanding of addition and subtraction of numbers with answers to 1000, concretely, pictorially and symbolically -Apply mental mathematics strategies and number properties such as using doubles, making 10, using commutative property, using the property of zero, and thinking addition and subtraction for basic addition facts and related subtraction facts to 18.</p>			
<p>January</p>		<p>Students will: -Relate the passage of time to common activities, using nonstandard and standard units -Relate the number of seconds to a minute, the number of minutes to an hour and the number of days to a month in a problem-solving context -Demonstrate an understanding of measuring length (cm,m) -Demonstrate an understanding of measuring mass (g,kg)</p>			
<p>February</p>	<p>FRACTIONS (2-3Weeks)</p>	<p>Students will: -Demonstrate how a whole can be divided into equal parts -Describe equal parts of a whole as fractions -Represent fractions as parts of a whole using concrete materials -Compare fractions with the same denominator -Interpret a problem and select an appropriate strategy</p>			

March	GEOMETRY (3 Weeks)	<p>Students will:</p> <ul style="list-style-type: none"> -Demonstrate an understanding of perimeter of regular and irregular shapes -Describe 3-D objects according to the shape of the faces and the number of edges and vertices -Sort regular and irregular polygons 			
April	DATA ANALYSIS (2 Weeks)	<p>Students will:</p> <ul style="list-style-type: none"> -collect, display and interpret data -identify events as being either impossible, uncertain or certain -construct and interpret various graphs and charts 			
May	MULTIPLICATION AND DIVISION (4 Weeks)	<p>Students will:</p> <p>Demonstrate an understanding of multiplication to $5 \cdot 5$ by:</p> <ul style="list-style-type: none"> <input type="checkbox"/> representing and explaining multiplication using equal grouping and arrays <input type="checkbox"/> creating and solving problems in context that involve multiplication <input type="checkbox"/> modeling multiplication using concrete and visual representations, and recording the process symbolically <input type="checkbox"/> relating multiplication to repeated addition <input type="checkbox"/> relating multiplication to division. <p>Demonstrate an understanding of division (limited to division related to multiplication facts up to 5×5) by:</p> <ul style="list-style-type: none"> <input type="checkbox"/> representing and explaining division using equal sharing and equal grouping <input type="checkbox"/> creating and solving problems in context that involve equal sharing and equal grouping <input type="checkbox"/> modeling equal sharing and equal grouping using concrete and visual representations, and recording the process symbolically <input type="checkbox"/> relating division to repeated subtraction <input type="checkbox"/> relating division to multiplication. 			
June					

June	REVIEW	<p>Students will be prepared to:</p> <ul style="list-style-type: none"> • use mathematics confidently to solve problems • communicate and reason mathematically • appreciate and value mathematics • commit themselves to lifelong learning • become mathematically literate adults, using mathematics to contribute to society <p>Students will learn to use the following mathematical processes:</p> <ul style="list-style-type: none"> • communicate mathematically • connect mathematical ideas to everyday experiences and to other subject areas • use estimation and mental mathematics where appropriate • apply new mathematical knowledge to problem solving • reason and justify their thinking • use appropriate technologies to solve problems • use visualization to assist in problem solving, processing information and making connections 			
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