



Danville District #118 Mathematics – Second Grade Curriculum and Scope and Sequence First Quarter

Common Core – Operations and Algebraic Thinking
 Common Core – Number and Operations in Base Ten
 Common Core – Measurement and Data
 Common Core - Geometry

State Standard	Objectives	Action Plan	Resources
<p><u>CC: Operations and Algebraic Thinking</u></p> <p>Represent and solve problems involving addition and subtraction</p> <p>Add and subtract within 20.</p> <p>Work with equal groups of objects to gain foundations for multiplication.</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> • Use addition and subtraction within 100 to solve one and two step word problems. CC.2.OA.1 • Demonstrate basic addition fact fluency to 20. CC.2.OA.2 • Fluently add and subtract within 20. CC. 2.OA.2 • Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. Write an equation to express the total as a sum of equal addends. CC.2.OA.4 	<p>Review first grade addition facts.</p> <p>Practice addition facts according to the district timeline.</p> <p>Use ten-frames to practice automaticity in recognizing any number up to 10.</p> <p>Represent numbers as groups of 10.</p> <p>Count by 2's, 5's, and 10's to 100.</p> <p>Skip count odd and even numbers.</p> <p>Represent whole numbers from 0 on a number line and whole number sums and differences within 100 on a number line.</p> <p>Solve and explain single</p>	<p><i>enVision Math</i></p> <ul style="list-style-type: none"> • Topic 1- Understanding Addition and Subtraction • Topic 2- Addition Strategies • Topic 3- Subtraction Strategies • Topic 4- Working with Equal Groups <p>Hundred chart</p> <p>Number lines</p> <p>Flash cards</p> <p>Addition & subtraction wrap-ups</p>

		<p>digit addition and subtraction story problems. Use strategies of adding to, taking from, putting together, taking apart, and comparing with unknowns.</p> <p>Find differences using related addition facts to 18.</p> <p>Subtract by finding missing addends.</p> <p>Write addition and subtraction sentences to solve problems.</p> <p>Use counters to model and solve problems.</p> <p>Ask questions such as, “If 3 is the answer, what is the question?”</p>	<p>Ten-frames</p> <p>Renaissance Place – Math Facts in a Flash</p>
<p><u>CC. Numbers and Operations in Base Ten</u></p> <p>Understand Place Value</p> <p>Use Place value understanding and properties of operations to add and subtract.</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> Fluently add and subtract within 100 using strategies based on place value, properties of operations and/or the relationship between addition and subtraction. CC.2.NBT.5 Explain why addition and subtraction strategies work, using place value and the properties of operations. CC.2. NBT.9 	<p>Use place value to create two- digit numbers to 99.</p> <p>Practice counting and writing numbers to 1000.</p> <p>Write the number that comes before, after or between numbers 0 to 100.</p> <p>Use place value charts and base-ten blocks to display and compare numbers.</p> <p>Compare two-digit numbers using models and</p>	<p>Place value chart</p> <p>Base Ten blocks</p>

		<p>symbols.</p> <p>Order two and three-digit numbers from least to greatest, and from greatest to least.</p> <p>Human number line -Have students order themselves from least to greatest with a given number.</p> <p>Write number sentences using the correct symbols.</p>	
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Danville District #118
Mathematics – Second Grade
Curriculum and Scope and Sequence
Second Quarter

Common Core – Operations and Algebraic Thinking
Common Core – Number and Operations in Base Ten
Common Core – Measurement and Data
Common Core - Geometry

State Standard	Objectives	Action Plan	Resources
<p>CC: Number and Operations in Base Ten</p> <p>Understand Place Value</p> <p>Use Place Value understanding and properties of operations to add and subtract</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g. 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following: 2.NBT.1 100 can be thought of as a bundle of ten tens-called a ‘hundred.” 2. NBT.1a The numbers 100,200,300,400,500,600,700,800,900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). 2.NBT.1b Count within 1000; skip-count by 5s, 10s, and 100s. 2.NBT.2 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. CC.2.NBT.3 Compare and order three digit numbers. CC.2.NBT.4 Use $<$, $>$, and $=$ to compare whole numbers. CC.2.NBT. 4 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. CC.2.NBT.5 Add up to four two-digit numbers using strategies based on place value and properties of operations. 2. NBT.6 Add and subtract to 1,000 using models and/drawings based on place value. CC.2.NBT.7 Mentally add 10 or 100 to a given number 100-900. CC.2.NBT.8 Explain why addition and subtraction strategies work using place value and properties of operations. CC.2.NBT.9 	<p>Continue reviewing facts according to the order on the district timeline.</p> <p>Use a hundred chart to add multiples of 10 to a two digit number.</p> <p>Use a ten-frame to make tens. Use this to assist with mental math.</p> <p>Use number cards to order two digit numbers from least to greatest.</p>	<p><i>enVision Math</i></p> <ul style="list-style-type: none"> Topic 5-Place Value: Numbers to 100 Topic 6- Mental Addition Topic 7-Mental Subtraction Topic 8-Adding Two-digit Numbers <p>100 Chart</p> <p>Manipulatives</p> <p>Number lines</p> <p>Base Ten blocks</p>

	<ul style="list-style-type: none"> Fluently add and subtract within 20 using mental strategies. 		
<p><u>CC: Operations and Algebraic Thinking</u></p> <p>Represent and solve problems involving addition and subtraction</p> <p>Add and subtract within 20</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> Use addition and subtraction within 100 to solve one and two step word problems. CC.2.OA.1 Determine whether a group of objects (up to 20) has an odd or even number of members. CC.2.OA.3 	<p>Fluency game - Practice math facts</p> <p>Use a math track or blank number line to assist in addition and subtraction.</p>	<p>Renaissance Place - Math Facts in a Flash</p>
<p><u>CC: Measurement and Data</u></p> <p>Work with time and money</p> <p>Represent and interpret data</p>	<p>The student will be able to:</p> <p>Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2..., and represent whole-number sums and differences within 100 on a number line diagram. 2.MD.6</p>	<p>Make and use a number line clock.</p> <p>Practice telling time to the nearest hour, half hour, and five minutes.</p> <p>Use a.m. and p.m. to write time.</p> <p>Mentally determine elapsed time.</p> <p>Identify and sort coins and their values.</p> <p>Count combinations of pennies, nickels, dimes, and quarters.</p> <p>Show ways to show the same amount of money.</p> <p>Write money amounts using dollars and cents signs.</p> <p>Write amounts with a dollar sign and a decimal point.</p> <p>Practice reading a</p>	<p>Clocks</p> <p>Coins</p> <p>Graphs</p> <p>Charts</p> <p>Thermometer</p>

		<p>thermometer. Given a specific temperature, practice counting by tens and then twos to locate and record the temperature.</p> <p>Collect and organize data to generate bar graphs, tally chart, and pictographs. Use data for problem solving.</p>	
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**Danville District #118
Mathematics – Second Grade
Curriculum and Scope and Sequence
Third Quarter**

**Common Core – Operations and Algebraic Thinking
Common Core – Number and Operations in Base Ten
Common Core – Measurement and Data
Common Core - Geometry**

State Standard	Objectives	Action Plan	Resources
<p><u>CC: Numbers and Operations in Base Ten</u></p> <p>Understand Place Value</p> <p>Use Place Value understanding and properties of operations to add and subtract</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> • Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g. 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following: 2.NBT.1 • 100 can be thought of as a bundle of ten tens-called a ‘hundred.” 2. NBT.1a • The numbers 100,200,300,400,500,600,700,800,900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). 2.NBT.1b • Count within 1000; skip-count by 5s, 10s, and 100s. 2.NBT.2 • Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. CC.2.NBT.3 • Compare and order three digit numbers. CC.2.NBT.4 • Use $<$, $>$, and $=$ to compare whole numbers. CC.2.NBT. 4 • Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. CC.2.NBT.5 • Add up to four two-digit numbers using strategies based on place value and properties of operations. 2. NBT.6 • Add and subtract to 1,000 using models and/drawings based on place value. CC.2.NBT.7 	<p>Review and practice addition and subtraction facts.</p> <p>Demonstrate mastery of subtraction “count back” facts.</p> <p>Demonstrate mastery of subtraction – zero facts.</p> <p>Learn subtraction double facts.</p> <p>Make doubles pictures.</p> <p>Help students understand less and greater symbols with use of an <i>alligator mouth</i> eating the larger number.</p> <p>Use place value charts and blocks to display and</p>	<p>enVision Math</p> <ul style="list-style-type: none"> • Topic 9- Subtracting Two-digit Numbers • Topic 10-Place Value to 1,000 • Topic 11-Three Digit Addition and Subtraction • Topic 12- Geometry

	<ul style="list-style-type: none"> Mentally add 10 or 100 to a given number 100-900. CC.2.NBT.8 Explain why addition and subtraction strategies work using place value and properties of operations. CC.2.NBT.9 	compare numbers.	
<p><u>CC: Operations and Algebraic Thinking</u></p> <p>Represent and solve problems involving addition and subtraction</p> <p>Add and subtract within 20</p> <p>Work with equal groups of objects to gain foundations for multiplication</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> Solve two step story problems using addition and subtraction including money amounts. CC.2.OA.1 Solve two digit subtraction problems with and without regrouping including money amounts. CC.2.OA.1 	<p>Use models to add a one-digit number to a two-digit number.</p> <p>Draw pictures and write number sentences to solve addition and subtraction problems.</p> <p>Use standard algorithms to add and subtract.</p> <p>Act out and use math manipulatives to identify, process, and solve story problems.</p> <p>Use dimes and pennies to demonstrate/practice regrouping</p>	<p>Flash cards</p> <p>Place value charts</p> <p>Base Ten blocks</p> <p>Ten – frames</p> <p>Pattern blocks</p>
<p><u>CC: Measurement and Data</u></p> <p>Measure and estimate lengths in standard units</p> <p>Relate addition and subtraction to length</p>	<p>The student will be able to:</p> <p>Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2..., and represent whole-number sums and differences within 100 on a number line diagram. 2.MD.6</p>	<p>Use number lines to model subtraction.</p> <p>Differences can be represented as lengths in a number line diagram of subtraction.</p>	<p>Number lines</p>

<p><u>CC: Geometry</u></p> <p>Reason with shapes and their attributes</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> • Recognize and create shapes that have symmetry. • Recognize, draw, name, compare, and sort geometric shapes by visual attributes – angles, sides, faces, and vertices. CC.2.G.1 • Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. CC.2.G. 1 • Partition a rectangle into rows and columns of same-size squares and count to find the total number. CC.2.G.2 • Partition circles and rectangles into two, three, or four equal shares. CC.2.G.3 	<p>Identify solid figures by their faces, flat surfaces, edges, or vertices</p> <p>Manipulate clay to create geometric solids.</p> <p>Students will explore with smaller shapes to make larger shapes (ex. triangle, trapezoid, parallelogram forms a hexagon) Fold and cut patterns and shapes to create and understand symmetry.</p> <p>Identify solid figures by their faces, flat surfaces, edges, and vertices.</p> <p>Identify the plane shapes form the flat surfaces of solid figures.</p> <p>Identify and create figures that are the same size and the same shape.</p> <p>Determine whether a shape has been divided into equal or unequal parts. Count the number of parts.</p>	<p>Geometric solids</p> <p>Geoboards</p> <p>Construction paper</p> <p>Scissors</p> <p>Grid paper</p> <p>Centimeter cubes</p> <p>Modeling clay</p> <p>Shape manipulatives</p> <p>Color tiles</p>
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Danville District #118
Mathematics – Second Grade
Curriculum and Scope and Sequence
Fourth Quarter

Common Core – Operations and Algebraic Thinking
Common Core – Number and Operations in Base Ten
Common Core – Measurement and Data
Common Core - Geometry

State Standard	Objectives	Action Plan	Resources
<p><u>CC: Numbers and Operations in Base Ten</u></p> <p>Understand Place Value</p> <p>Use place value understanding and properties of operations to add and subtract</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. CC.2.NBT.5 Explain why addition and subtraction strategies work using place value and properties of operations. CC.2.NBT.9 	<p>Review addition facts, count back facts, zeros, and doubles facts.</p> <p>Continue working on subtraction facts.</p> <p>Learn ten-frames (10-9, 10-8, 10-7, 10-6, 10-5, 10-4, 9-5, etc.)</p> <p>Use place value charts and blocks to display and compare numbers.</p> <p>Use models to subtract three-digit numbers with regrouping.</p> <p>Subtract three-digit numbers using a standard algorithm.</p>	<p><i>enVision Math</i></p> <ul style="list-style-type: none"> Topic 13- Counting Money Topic 14- Money Topic 15- Measurement : Length and Area Topic 16-Time, Temperature, Graphs & Probability <p>Place value charts</p> <p>Base ten blocks</p>
<p><u>CC: Measurement and Data</u></p> <p>Measure and estimate lengths in standard units</p>	<p>The student will be able to :</p> <ul style="list-style-type: none"> Use nonstandard units to measure objects. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, and measuring tapes. 	<p>Describe attributes of objects and ways to measure objects.</p> <p>Measure the lengths of</p>	<p>Rulers</p> <p>Yardsticks</p> <p>Paper clips</p>

<p>Relate addition and subtraction to length</p>	<p>CC.2.MD.1</p> <ul style="list-style-type: none"> • Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. 2.MD.2 • Estimate and measure lengths using inches, feet, centimeters, and meters. CC.2.MD.3 • Measure to determine how much longer one object is than another expressing the length difference in terms of a standard length unit. CC.2.MD.4 • Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units. 2.MD.5 • Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. 2.MD.7 • Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ appropriately. 2.MD.8 • Generate measurement data by measuring lengths of several objects to the nearest whole unit. 2.MD.9 • Draw a picture and bar graph to represent a data set with up to four categories. 2.MD.10 • Develop an understanding of area and perimeter. 	<p>objects using nonstandard and standard units.</p> <p>Use rulers, yard sticks, meter sticks, and measuring tapes to measure objects around the classroom.</p> <p>Use a ruler to measure and compare lengths of objects and line segments.</p> <p>Describe how two measurements relate to size of unit chosen.</p> <p>Count units around shapes to find perimeter.</p> <p>Find the area of closed figures using same-sized objects to cover the space inside a figure.</p> <p>Use objects to find the distance around shapes.</p>	<p>Pencils</p> <p>Measuring tapes</p> <p>Cubes and other non-standard units</p> <p>Clocks</p>
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