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

Common Core - Operations and Algebraic Thinking (OA)
Common Core – Number and Operations in Base Ten (NBT)
Common Core – Measurement and Data (MD)
Common Core – Geometry (G)

Common Core	Objectives	Action Plan	Resources
CC: Operations and Algebraic Thinking **Represent and solve problems involving addition and subtraction.** **Add and subtract within 20.** **Work with addition and subtraction equations.** **Understand and apply properties of operations and the relationship between addition and subtraction.**	**The student will be able to:** • Represent and solve problems involving addition. **CC.1.OA.1** • Apply properties of operations as strategies to add and subtract. **CC.1.OA.3** • Understand subtraction as an unknown-addend problem. **CC. 1.0A.4** • Relate counting to addition and subtraction. **CC.1.OA.5** • Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. **CC.1.OA.6** • Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. **CC.1.OA.7** • Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. **CC.1.OA.8**	Represent and recognize numbers on Ten-frames. Show 10 as two parts. Find missing parts of 10. Use ten frames to practice automaticity in recognizing any number up to 10. Use strategies such as counting on, making ten, and decomposing a number leading to ten to solve problems. Solve oral story problems to find the missing part (change unknown). Write addition sentences to find the whole (result unknown). Make a rekenrack to represent numbers and solve story problems.	*enVision Math* • **Topic 1- Understanding Addition** • **Topic 2- Understanding Subtraction** • **Topic 3-Five and Ten Relationships** • **Topic 4- Addition and Subtraction Facts to 12** Ten-frames Manipulatives Rekenrack

Board Approved 11/15/11

| CC. Number and Operations in Base Ten
Extend the counting sequence | • Count to 120 by ones. **CC.1.NBT.1**

• Understand that the two digits of a two-digit number represent amounts of tens and ones. **CC. 1. NBT 2** | Use manipulatives on a blank ten-frame to represent addition problems.

Solve more difficult addition problems by using "Jump to Ten, Jump Again."

Draw a picture to solve problems.

Write number sentences to solve problems.

Use manipulatives to solve problems.

Label pictures with corresponding subtraction number sentences. | |

Common Core - Operations and Algebraic Thinking (OA)
Common Core – Number and Operations in Base Ten (NBT)
Common Core – Measurement and Data (MD)
Common Core – Geometry (G)

Common Core Standard	Objectives	Action Plan	Resources
CC: Operations and Algebraic Thinking **CC.1.OA Represent and solve problems involving addition and subtraction.** __Operations and Algebraic Thinking__ **Represent and solve problems involving addition and subtraction** **Add and subtract within 20** **Work with addition and subtraction equations**	**The student will be able to:** • Represent and solve problems involving addition. **CC.1.OA.1** • Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. **CC.1.OA.2** • Use the associative and commutative properties to add three numbers. **CC.1.OA.3** • Understand subtraction is an unknown addend-problem. For example, subtract 10-8 by finding the number that makes 10 when added to 8. **CC1.OA.4** • Add and subtract within 20, demonstrating fluency for addition and subtraction. **CC.1.OA.6** • Understand the meaning of the equal sign. *CC.1.OA.7* • Work with addition and subtraction equations. *CC.1.OA.8*	Compare numbers using <, >, or = to 100. Subtract two digit numbers without regrouping. Determine if equations involving addition and subtraction are true or false. *(For example, which of the following equations are true and which are false? 6=6, 7=8-1, 5+2 = 2+5, 4+1 = 5+2.)*	*enVision Math* • **Topic 5: Addition Facts to 20** • **Topic 6: Subtraction Facts to 20** • **Topic 7- Counting and Patterns** Numbers to 20 • **Topic 8- Tens and Ones** Subtraction Facts to 20 Counting and Patterns to 120 Tens and Ones 100 Chart Manipulatives

		Demonstrate fluency in complements of 5, 5+, complements of 10, and doubles. Master doubles + 1 facts. Mentally add and subtract 10 from a number. Explain how they got answer. Identify and count pairs. Count by 2's to 20 Count by 10's to 120. Count by 2's to add 2. Count by 5's to add 5. Review even and odd numbers. Write numbers to 120 . Write by 2's to 20.	Individual number lines Ten-frames Flashcards

Common Core - Operations and Algebraic Thinking (OA)
Common Core – Number and Operations in Base Ten (NBT)
Common Core – Measurement and Data (MD)
Common Core – Geometry (G)

Common Core Standard	Objectives	Action Plan	Resources
CC. Number and Operations in Base Ten **Extend the counting sequence** **Extend the counting sequence.** **Understand place value.** **Use place value understanding and properties of operations to add and subtract.**	**The student will be able to:** • Count to 120 by ones. **CC.1.NBT.1** • Understand that the two digits of a two-digit number represent amounts of tens and ones. **CC. 1. NBT 2** • • Understand place value **CC.1.NBT.3** • Compare and order two numbers through 20 • Compare and order three numbers through 20 • Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. **CC.1.NBT.4** • Given a two-digit number, mentally find 10 more or 10 less than the number without having to count. Explain the reasoning used. **CC.1.NBT.5** • Subtract multiples of 10 in the range 10-90 using concrete models or drawings and strategies based on place value. **CC1.NBT.6**	Represent a number of objects with a written numeral. Understand that 10 can be thought of as a bundle of ten ones – called a "ten" and that the numbers from 11-19 are composed of a ten and one, two, three, etc. Use five-frames and ten-frames to represent addition problems. Recite 5+ facts. Recite complements of five using a Five- frame. Practice addition doubles facts to 10. Use a number line to compare and order numbers.	*enVision Math* • **Topic 9- Comparing and Ordering Numbers to 100** • Comparing and Ordering Numbers • Understanding Addition • Five and Ten Relationships • Addition Facts to 20 • **Topic 10- Addition and Subtraction with Tens and Ones** • **Topic 11: Subtracting with Tens and Ones**

Board Approved 11/15/11

CC: Measurement and data **Measure lengths indirectly and by iterating length units.** **Tell and write time** **Represent and Interpret Data**	• Compare lengths of two objects indirectly by using a third object. **CC.1.MD.1** • Express the length of an object as a whole number of length units, by laying multiple copies of a non-standard unit end to end. **CC.1.MD.2**	Recognize doubles as a strategy for remembering sums. Model and practice counting orally. Count to 120 starting at any number less than 120. Identify and write numerals 0-20. Add three addends. Identify the missing addend in an equation. Determine the unknown number that makes the equation true in each of the equations: $8 + 8 = ?$ $5 = \Box -3, 6 + 6 = \Box$. Complete mixed addition and subtraction facts to 20. Complete fact families to 20. Practice math facts – complements of 5, 5+, complements of 10, doubles, and doubles +1. Use manipulatives or a 100 chart to practice adding three addends. Practice known facts and part/part/whole to construct fact families.	100 Chart Ten- frames Five-frames Numberline Flashcards Dry erase/chalkboards Various manipulatives

6

| | | Explain why a certain strategy or operation was used. Use flashcards to review number words.

Use manipulatives to show ordinal numbers.

Have students stand in line according to an ordinal number.
Solve problems by finding the missing part.

Tell and act out stories about separating to find how many are left.

Master concepts of 0 less than, 1 less than, and 2 less than when subtracting 0, 1, or 2.

Subtract to compare two numbers.

Write and solve subtraction number sentences.

Use counters to solve subtraction story problems. | |
|---|---|---|---|

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

Common Core - Operations and Algebraic Thinking (OA)
Common Core – Number and Operations in Base Ten (NBT)
Common Core – Measurement and Data (MD)
Common Core – Geometry (G)

Common Core Standard	Objectives	Action Plan	Resources
CC: Measurement and data **Measure lengths indirectly and by iterating length units.** **Tell and write time** **Represent and Interpret Data**	**The student will be able to:** • Identify time to the hour and half hour. **CC.1.MD.3** • Express the length of an object as a whole number of length units, • Tell and write time in hours and half-hours using analog and digital clocks. **CC.1. MD.3** • Organize, represent and interpret information from a table. **CC.1.MD.4**	Use an analog and digital clock to practice telling time to the hour and half hour. Practice writing time. Create and use a number line clock to practice telling time. Use non-standard units (paper clips, shoes, etc.) to measure items in the classroom. Measure using non-standard units. Make own ruler and measure items around the room. Estimate and measure the lengths of objects in inches and using a ruler. Measure items to the nearest inch.	*enVision Math* • **Topic 12: Length** • Measurement • **Topic 13:Time** • **Topic 14: Using Data to Answer Questions** Number line 100 Chart Pattern blocks and overhead materials Unifix cubes Base 10 cubes Nickels Ten-frames

		Order three objects by length. Gather data and create tables to solve problems. Ask and answer questions about total number of data points, how many in each category, how many more or less in one category than another	Manipulatives
CC: Geometry **Reason with shapes and their attributes**	**The student will be able to:** • Distinguish between defining attributes and non-defining attributes for a wide variety of shapes. **CC.1.G.1** • Create two and three dimensional shapes and put together to create a new shape. **CC.1.G.2** • Identify ½ and ¼ using circles and rectangles. **CC.1.G. 3**	Identify two dimensional shapes (rectangles, squares, triangles, trapezoids, half-circles, quarter, circles) or three dimensional shapes (cubes, right rectangular prism, right circular cone, right circular cylinders). Build and draw shapes. Sort plane shapes and identify their properties. Create a composite shape to compose new shapes from those shapes. Divide circles and rectangles into two and four equal parts - fold and/or cut paper, etc. Describe the parts using the words - halves, fourths, quarters, etc.	*enVision Math* • **Topic 15- Geometry** • **Topic 16- Fractions of Shapes** Geometric shapes and solids