# First Grade Mathematics Curriculum Standards Matrix

Warren County Schools Standards Matrix is aligned with the *North Carolina Collaborative for mathematics Learning (NC²ML) Instructional Frameworks*.  The clusters and sequencing are crafted to foster student understanding over time of the connections among mathematical ideas and procedures.  Standards and skills are addressed through multiple clusters with increase depth of knowledge.  Please note that strikethroughs represent parts of standards that are addressed in a different cluster. The mastery of all grade level standards is an expectation by the end of the academic school year.  Teachers will have to continue to keep skills sharp throughout each grading period.

==Benchmark 1==: Schoolnet          ==Benchmark 2==: Schoolnet          ==Benchmark 3==: Schoolnet
(Standards are highlighted to indicate the Benchmark that it will be assessed on)
*Note: Be careful not to overlook standards that will be assessment in a particular benchmark window*

| Instructional Framework Cluster | North Carolina Standard | Recommended Duration and Resources |
|---|---|---|
| **First Six Weeks** |||
| **1.Using Numbers to Explore Our Mathematical Community** | **Extend and recognize patterns in the counting sequence.** <br> *NC.1.NBT.1* Count to 150, starting at any number less than 150. <br><br> *NC.1.NBT.7* Read and write numerals, and represent a number of objects with a written numeral, to ~~100~~ *20*. <br><br> **Understand place value.** <br> *NC.1.NBT.2* Understand that the two digits of a two-digit number represent amounts of tens and ones. <br> • Unitize by making a ten from a collection of ten ones. <br> • Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. <br> • ~~Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.~~ <br><br> **Represent and interpret data.** <br> *NC.1.MD.4* Organize, represent, and interpret data with up to three categories. <br> • Ask and answer questions about the total number of data points. <br> • Ask and answer questions about how many in each category. <br> Ask and answer questions about how many more or less are in one category than in another. | 3 to 4 Weeks <br><br> [Instructional Framework Resource](#) <br><br> [Cluster 1](#) <br> Tools4teachers (Lessons/Tasks) |
| **2.Building a Conceptual Understanding of Addition and Subtraction** | **Represent and solve problems.** <br> *NC.1.OA.1* Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving: <br> • Add to/Take from-Change Unknown <br> • Put together/Take Apart-Addend Unknown <br> • ~~Compare-Difference Unknown~~ <br><br> **Understand and apply the properties of operations.** <br> *NC.1.OA.3* Apply the commutative and associative properties as strategies for solving addition problems. <br><br> **Add and subtract within 20.** <br> *NC.1.OA.6*  Add and subtract, within 20, using strategies such as: <br> • Counting on <br> • Making ten <br> • Decomposing a number leading to a ten <br> • Using the relationship between addition and subtraction <br> • Using a number line | 3-4 weeks <br><br> [Instructional Framework Resource](#) <br><br> [Cluster 2](#) <br> Tools4teachers (Lessons/Tasks |

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|  |  |  |
|---|---|---|
|  | • Creating equivalent but simpler or known sums<br><br>*NC.1.OA.9* Demonstrate fluency with addition and subtraction within 10.<br><br>**Analyze addition and subtraction equations within 20.**<br>*NC.1.OA.7* Apply understanding of the equal sign to determine if equations involving addition and subtraction are true. |  |

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| Instructional Framework Cluster | North Carolina Standard | Recommended Duration and Resources |
|---|---|---|
| | **Second Six Weeks** | |
| **3.Understanding Equality and Place Value to Compare Numbers** | **Extend and recognize patterns in the counting sequence.**<br>_**NC.1.NBT.1**_ Count to 150, starting at any number less than 150.<br><br>_**NC.1.NBT.7**_ Read and write numerals, and represent a number of objects with a written numeral, to 100.<br><br>    **NOTE:** _NBT.1 and NBT.7 are continued areas of focus. These should be woven into and reinforced in instruction throughout the remainder of the year._<br><br>**Understand place value.**<br>_**NC.1.NBT.2**_ nderstand that the two digits of a two-digit number represent amounts of tens and ones.<br>   ● Unitize by making a ten from a collection of ten ones.<br>   ● Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.<br>   ● Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.<br><br>_**NC.1.NBT.3**_ Compare two two-digit numbers based on the value of the tens and ones digits, recording the results of comparisons ~~with the symbols >, =, and <.~~ | 3 Weeks<br><br>Instructional Framework Resource<br><br>Cluster 3<br>Tools4teachers (Lessons/Tasks |
| | **Benchmark 1** | |
| | **Represent and interpret data.**<br>_**NC.1.MD.4**_ Organize, represent, and interpret data with up to three categories.<br>   ● Ask and answer questions about the total number of data points.<br>   ● Ask and answer questions about how many in each category.<br>   ● Ask and answer questions about how many more or less are in one category than in another.<br><br>**Represent and solve problems.**<br>_**NC.1.OA.1**_ Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, ~~and equations with a symbol for the unknown number to represent the problem, when solving:~~<br>   ● Add to/Take from-Change Unknown<br>   ● Put together/Take Apart-Addend Unknown<br>Compare-Difference Unknown | **3 Weeks**<br><br>Instructional Framework Resource<br><br>Cluster 3<br>Tools4teachers (Lessons/Tasks |

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| Instructional Framework Cluster | North Carolina Standard | Recommended Duration and Resources |
|---|---|---|
| | **Third Six Weeks** | |
| **4.Understanding Measurement as a Context to Compare Numbers** | **Measure lengths.**<br>_NC.1.MD.1_  Order three objects by length; compare the lengths of two objects indirectly by using a third object.<br><br>_NC.1.MD.2_ Measure lengths with non-standard units.<br>   ● Express the length of an object as a whole number of non-standard length units.<br>   ● Measure by laying multiple copies of a shorter object (the length unit) end to end (iterating) with no gaps or overlaps.<br><br>**Understand place value.**<br>_NC.1.NBT.3_ Compare two two-digit numbers based on the value of the tens and ones digits, recording the results of comparisons-with the symbols >, =, and <.<br><br>**Represent and solve problems.**<br>_NC.1.OA.2_ Represent and solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, by using objects, drawings, and equations with a symbol for the unknown number.<br><br>**Analyze addition and subtraction equations within 20.**<br>_NC.1.OA.7_ Apply understanding of the equal sign ~~to determine if equations involving addition and subtraction are true.~~<br><br>_NC.1.OA.8_ Determine the unknown whole number in an addition or subtraction equation involving three whole numbers. | 4 to 5  Weeks<br>_(Continued)_<br><br>Instructional Framework Resource<br><br>Cluster 4<br>Tools4teachers<br>(Lessons/Tasks |
| | **Benchmark 2** | |

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| Instructional Framework Cluster | North Carolina Standard | Recommended Duration and Resources |
|---|---|---|
| | **Fourth Six Weeks** | |
| **5.Operating with Place Value** | **Extend and recognize patterns in the counting sequence.**<br>**NC.1.NBT.1** Count to 150, starting at any number less than 150.<br><br>**Understand place value.**<br>*NC.1.NBT.2* Understand that the two digits of a two-digit number represent amounts of tens and ones.<br>  ● Unitize by making a ten from a collection of ten ones.<br>  ● Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.<br>  ● Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.<br><br>**Use place value understanding and properties of operations.**<br>*NC.1.NBT.4* Using concrete models or drawings, strategies based on place value, properties of operations, and explaining the reasoning used, add, within 100, in the following situations:<br>  ● A two-digit number and a one-digit number<br>  ● A two-digit number and a multiple of 10<br><br>*NC.1.NBT.5* Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.<br><br>*NC.1.NBT.6* Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90, explaining the reasoning, using:<br>  ● Concrete models and drawings<br>  ● Number lines<br>  ● Strategies based on place value<br>  ● Properties of operations<br>  ● The relationship between addition and subtraction<br><br>**Represent and solve problems.**<br>*NC.1.OA.1* Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving:<br>  ● Add to/Take from-Change Unknown<br>  ● Put together/Take Apart-Addend Unknown<br>  ● Compare-Difference Unknown<br><br>**Understand and apply the properties of operations.**<br>*NC.1.OA.3* Apply the commutative and associative properties as strategies for solving addition problems.<br><br>**Analyze addition and subtraction equations within 20.**<br>*NC.1.OA.7* Apply understanding of the equal sign to determine if equations involving addition and subtraction are true. | 6 Weeks<br><br>Instructional Framework Resource<br><br>Cluster 5<br>Tools4teachers<br>(Lessons/Tasks |

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| Instructional Framework Cluster | North Carolina Standard | Recommended Duration and Resources |
|---|---|---|
| **Fifth Six Weeks** | | |
| **6.Distinguishing and Composing Shapes** | **Reason with shapes and their attributes.**<br>_NC.1.G.1_ Distinguish between defining and non-defining attributes and create shapes with defining attributes by:<br>● Building and drawing triangles, rectangles, squares, trapezoids, hexagons, circles.<br>● Building cubes, right rectangular prisms, right circular cones, spheres, and right circular cylinders.<br><br>_NC.1.G.2_ Create composite shapes by:<br>● Making a two-dimensional composite shape using rectangles, squares, trapezoids, triangles, and half-circles naming the components of the new shape.<br>Making a three-dimensional composite shape using cubes, rectangular prisms, cones, and cylinders, naming the components of the new shape. | 3 Weeks<br><br>Instructional Framework Resource<br><br><br>Cluster 6<br>Tools4teachers (Lessons/Tasks |
| **Benchmark 3** | | |
| **7.Partitioning and Telling Time to the Hour and Half Hour** | **Build understanding of time and money.**<br>_NC.1.MD.3_ Tell and write time in hours and half-hours using analog and digital clocks.<br><br>**Reason with shapes and their attributes.**<br>_NC.1.G.3_ Partition circles and rectangles into two and four equal shares.<br>● Describe the shares as halves and fourths, as half of and fourth of.<br>● Describe the whole as two of, or four of the shares.<br>Explain that decomposing into more equal shares creates smaller shares. | 3 Weeks<br><br>Instructional Framework Resource<br><br><br>Cluster 7<br>Tools4teachers (Lessons/Tasks |

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| Instructional Framework Cluster | North Carolina Standard | Recommended Duration and Resources |
|---|---|---|
| | **Sixth Six Weeks** | |
| **8.Developing Flexibility with Number** | **Represent and solve problems.**<br>_NC.1.OA.1_ Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving:<br>● Add to/Take from-Change Unknown<br>● Put together/Take Apart-Addend Unknown<br>● Compare-Difference Unknown<br><br>_NC.1.OA.2_ Represent and solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, by using objects, drawings, and equations with a symbol for the unknown number.<br><br>**Understand and apply the properties of operations.**<br>_NC.1.OA.3_ Apply the commutative and associative properties as strategies for solving addition problems.<br><br>_NC.1.OA.4_ Solve an unknown-addend problem, within 20, by using addition strategies and/or changing it to a subtraction problem.<br><br>**Add and subtract within 20.**<br>_NC.1.OA.6_ Add and subtract, within 20, using strategies such as:<br>● Counting on<br>● Making ten<br>● Decomposing a number leading to a ten<br>● Using the relationship between addition and subtraction<br>● Using a number line<br>● Creating equivalent but simpler or known sums<br><br>_NC.1.OA.9_ Demonstrate fluency with addition and subtraction within 10.<br><br>**Build understanding of time and money.**<br>_NC.1.MD.5_ Identify quarters, dimes, and nickels and relate their values to pennies. | 3 Weeks<br><br>Instructional Framework Resource<br><br><br>Cluster 8<br>Tools4teachers (Lessons/Tasks |
| **Review All Clusters** | **Review all standards** | 3 Weeks |
| | **End of Grade Assessment** | |