Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

WSD Overarching Essential Question	WSD Overarching Enduring Understandings
Students will consider… • How do I use the language of math (i.e. symbols, words) to make sense of/solve a problem? • How does the math I am learning in the classroom relate to the real-world? • What does a good problem solver do? • What should I do if I get stuck solving a problem? • How do I effectively communicate about math with others in verbal form? In written form? • How do I explain my thinking to others, in written form? In verbal form? • How do I construct an effective (mathematical) argument? • How reliable are predictions? • Why are patterns important to discover, use, and generalize in math? • How do I create a mathematical model? • How do I decide which is the best mathematical tool to use to solve a problem? • How do I effectively represent quantities and relationships through mathematical notation? • How accurate do I need to be? • When is estimating the best solution to a problem?	*Students will understand that…* • Mathematical skills and understandings are used to solve real-world problems. • Problem solvers examine and critique arguments of others to determine validity. • Mathematical models can be used to interpret and predict the behavior of real world phenomena. • Recognizing the predictable patterns in mathematics allows the creation of functional relationships. • Varieties of mathematical tools are used to analyze and solve problems and explore concepts. • Estimating the answer to a problem helps predict and evaluate the reasonableness of a solution. • Clear and precise notation and mathematical vocabulary enables effective communication and comprehension. • Level of accuracy is determined based on the context/situation. • Using prior knowledge of mathematical ideas can help discover more efficient problem solving strategies. • Concrete understandings in math lead to more abstract understanding of math.

Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

Unit 1 - Numbers to 10 (Identifying, Adding, and Subtracting)
Unit Title: Numbers to 10 (Identifying, Adding, and Subtracting) Course: 1st Grade Math Brief Summary of Unit: Students will learn how to count, read, write, compare, add & subtract within ten. Textbook Correlation: Chapter 1, 2, 3, and 4 Time Frame: approximately 9 weeks (Chapter 1 and 2 length dependent upon how students perform on pre-test, per teacher judgment)
Calendar is taught for the first few months of school. Concepts to include during calendar time include: place value, money, ordinal numbers (Chapter 6), and the calendar objectives in Chapter 15 (Lesson 1).

Transfer
Students will be able to independently use their learning to… Use number sense, addition and subtraction to solve problems.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • What's the best way to find a total? • How do you find how many are left? • What did you do to find an answer? • Is there a different way? • What is the easiest way to combine the numbers? • Is there a more efficient way? • Does it matter which way the numbers are ordered? • How are addition and subtraction related? • What do you know about a given number? • What do you see when you look at this problem? • How are addends and sums related to subtraction? • What is the same as? • Do you notice any patterns? • How is counting on related to addition? • How is counting back related to subtraction? • Do all the strategies work all the time? • Do you all have to use the same strategy? • What do I have to add or subtract to either side to make this statement true? • Which operation will I use to find the number that is missing? Why? • How are addends and sums related? • How is finding a missing addend like subtracting? • How is finding a missing minuend or subtrahend like adding?	*Students will understand that…* • Problem solving could mean taking from, putting together, taking apart, or comparing. • Certain English words are used to represent different mathematical relationships. • Problem solving is a process. • Addends can be added in any order to get the sum. • Making tens is an efficient way to add and subtract. • Math properties can be used to make solving properties easier. • Subtraction is the same as solving an unknown-addend problem. • Counting on is the same as addition; counting back is the same as subtraction. • There are multiple strategies to solve addition and subtraction equations. • To add or subtract with fluency means to add or subtract efficiently and with understanding. • The equal sign **does not** mean reading the sign and work the problem, write the answer, or "makes". For example, 2 +2 = 4 should not be read as 2 + 2 makes 4, but rather 2 + 2 is the same as 4. • Equals means that it has the same quantity or value. • There is a relationship between part, part, and whole. • Knowing fact families help to find missing parts.

Acquisition	Acquisition
Key Knowledge	Key Skills

Students will know…
 	
● Fewer/Greater (1-2)
● Less than/More than (1-2)
● Number bond (2-1)
● Number bond relationships (2-2)
● Mathematics facts to 10 (Ch. 3 & Ch. 4)
● Part + Part = Whole (3-1)
● Addition and subtraction vocabulary:
  ○ add (3-1)
  ○ plus (+) (3-1)
  ○ equal to (=) (3-1)
  ○ addition sentence (3-1)
  ○ more than (3-1)
  ○ addition story (3-2)
  ○ take away (4-1)
  ○ subtract (4-1)
  ○ minus (-) (4-1)
  ○ subtraction sentence (4-1)
  ○ less than (4-1)
  ○ subtraction story (4-2)
  ○ fact family (4-4)
  ○ true/false (4-4)
● Addition and subtraction methods:
  ○ counting up (3-1)
  ○ counting down (4-1)
  ○ branching (3-1, 4-1)
  ○ manipulatives (3-1, 4-1)
● Know when to add or subtract whole numbers. (3-1, 4-1)
● Whole – Part = Part (4-1)
● Addition and Subtraction are the opposite of each other. (4-4)
● Commutative property. (Students do not need to know the term, but need to know how to use it.) (4-4)
● Fact Family (related facts) (4-4)
	Students will be able to….
	Italicized below is prerequisite knowledge taught in Kindergarten. Pre-test to determine what, if any, needs to be retaught.
	
	● *Number Identification from 0 to 10. (1-1)*
	● *Rote counting from 0 to 10. (1-1)*
	● *Order numbers from 0 – 10. (1-1)*
	● *Find missing numbers in patterns to 10. (1-3)*
	● *Read and write numbers to 10.*
	● ***Use number bonds. (2-1)***
	● ***Create equivalent sums by using easier combinations of numbers. (2-1, 2-2)***
	● **Represent, check and explain their thinking while adding, subtracting, and counting. (Ch.3 & Ch. 4)**
	● **Question and understand strategies of others. (Ch. 3 & Ch. 4)**
	● **Add to find the whole. (3-1)**
	● **Add or subtract to solve for the missing part. (3-1, 4-1)**
	● **Look at a picture and create an addition or subtraction story. (3-2, 3-3, 4-1, 4-2, 4-3, 4-4)**
	● **Decompose a number to 10 to subtract. (4-1)**
	● **Complete a number sentence in the form of**
	  8 - ___ = 5; ___ = 10 – 2; 5 = 8 - ___;
	  6 + 4 = 9 + ___ (4-1)
	● **Apply the commutative property during adding or subtracting. (4-4)**
	● **Fluently add and subtract within 10. (Ch. 3 & Ch. 4)**
	● **Add and subtract within 10 using:**
	  ○ **place value board (3-1, 4-1)**
	  ○ **counting forward (3-1)**
	  ○ **counting backwards (4-1)**
	  ○ **number bonds**
	● **Compare two numbers within 10.**
	● **Identify the number that is greater than.**
	● **Identify the number that is less than.**
	● **Write fact families. (related facts) (4-4)**

Standards Alignment

MISSOURI LEARNING STANDARDS

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments and critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

1.OA.3: Apply properties of operations as strategies to add and subtract. 3 *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*

1.OA.4: Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

1.OA.7: Understand the meaning of the equal sign, and 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.

1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 +? = 11, 5 = _ – 3, 6 + 6 = _.

Show Me-Standards

Goal 1: 1, 4, 5, 6, 7, 8
Goal 2: 2, 3, 7
Goal 3: 1, 2, 3, 4, 5, 6, 7, 8
Goal 4: 1, 4, 5, 6
Mathematics: 1, 5

Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

Unit 2 – Shapes, Patterns, Fractions, and Time
Unit Title: Shapes, Patterns, Fractions, and Time Course: 1st Grade Math Brief Summary of Unit: Students will be able to identify, measure, and analyze shapes as well as identify time on a clock. Textbook Correlation: Chapter 5 and 15 (Lessons 2, 2a, 3 and 3a) Time Frame: approximately 4 weeks
Calendar is taught for the first few months of school. Concepts to include during calendar time include: place value, money, ordinal numbers (Chapter 6), and the calendar objectives in Chapter 15 (Lesson 1).

Transfer
Students will be able to independently use their learning to Plan life events by using a calendar and clock.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • How can I sort these objects? (By color? Size? Shape?) Number of sides? Number of corners? Equal sides?) • How does this shape fit into the group? • What makes this shape a square, triangle, etc.? • Why can't I use color to define a shape? • How can I make a shape? • What new shape can I make? (Idea is students are given 2 or more shapes and asked to make a new shape out of them) • Is my shape a 2-dimensional or 3-dimensional shape? What is your evidence? • How are 2-dimensional and 3-dimensional shapes the same? How are they different? • How do I know the parts are equal? • How do you represent time? • How do you read time on an analog clock? • When should I use a clock? • When should I use a calendar? • Which is better: an analog clock or a digital clock? Why?	*Students will understand that…* • Shapes can be moved (slides, flips, and turns) to show their correlation with each other. • Shapes can be combined to make new shapes • Shapes can be 2-dimensional or 3-dimensional. • Shape names help to describe real-world objects. • Shapes can be divided into equal shares. • The more parts a shape is divided into means smaller parts are created. • Shapes can be decomposed into equal parts in multiple ways. • Shapes have defining attributes and non-defining attributes. • Clocks show time. <u>*The Understandings below will be taught during Calendar Time:*</u> • *Days of the week occur in an order.* • *Months of the year occur in an order.* • *Some months have 31 days, some have 30, and February can have 28 or 29 (depending on leap year).* • *Items in a line are identified by their ordinal position.* • *Item locations are determined by their placement compared to other items.* • *There are terms used to describe where an item is located.*

Acquisition	Acquisition
Key Knowledge	Key Skills

Students will know…
 	
● How to combine plane shapes to make new composite shapes. (5.3)
● Attributes of shapes (circle, triangle, rectangle, square, oval, half circle, quarter circle, rhombus, trapezoids). (9.1)
● Characteristics of shapes (lines, sides, angles, vertex, etc.). (9.1)
● Shapes can sometimes be divided into equal parts.
 	
● Vocabulary:
  ○ before
  ○ after
  ○ between
  ○ ordinal (first, second, third...tenth) (15-1)
 	
● How to combine plane shapes to make new composite shapes. (5.3)
● Attributes of shapes (circle, triangle, rectangle, square, oval, half circle, quarter circle, rhombus, trapezoids). (5.1)
● Characteristics of shapes (lines, sides, angles, vertex/corner, etc.). (9.1)
● Shapes can sometimes be divided into equal parts.
 	
● Vocabulary:
  ○ o'clock (15-2)
  ○ hour hand (15-2,3)
  ○ minute hand (15-2,3)
  ○ half past (15-3)
● The names for each day of the week. (15-1)
● The names for each month of the year. (15-1)
● Items in a line take a position. (15-1)
● Clocks have hours and half hours.
● Hour and minute hands represent different time increments.
● When writing or reading time on an analog clock, the larger sized numbers represent the hours. (15-2,3)
● When writing or reading time on a digital clock the numbers on the left represent the hour and the numbers on the right represent the minutes. (15-2,3)
	Students will be able to….
	
	● **Divide shapes into equal parts. (5.1)**
	● **Identify if a shape has been divided into fourths or halves. (5.1)**
	● **Identify which of 2 shapes has smaller or larger shares compared to the other shape (comparing size of different fractional parts). (5.1)**
	● **Identify shapes: rectangular prism, cube, sphere, cone, cylinder, pyramid, circle, triangle, square, rectangle, oval, rhombus, and trapezoid.**
	● **Identify that shapes can be stacked, slid, and rolled. (5.2)**
	● **Identify that you can compose and decompose shapes into other shapes. (5.3)**
	● **Combine shapes to create a composite shape. (5.3)**
	● **Build and draw the shapes. (5.5)**
	● **Tell time to the hour on digital and analog clocks using the term o'clock. (15-2)**
	● **Tell time to the half hour on analog and digital clocks using the term half past. (15-3)**
	
	<u>The Key Skills below will be taught during Calendar Time:</u>
	
	● *Identify the months of the year/days of the week. (15-1)*
	● *Identify the number of days in a week/month. (15-1)*
	● *Identify the number of months in a year. (15-1)*
	● *Identify what (day/month) comes next on the calendar. (15-1)*
	● *Use ordinal numbers. (15-1)*
	● *Use positional words to name relative positions. (15-1)*

Standards Alignment

MISSOURI LEARNING STANDARDS

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments and critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

1.G.1: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

1.G.2: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

1.G.3: Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

1.MD.3: Tell and write time in hours and half-hours using analog and digital clocks.

Show Me-Standards

Goal 1: 1, 4, 5, 6, 7, 8
Goal 2: 2, 3, 7
Goal 3: 1, 2, 3, 4, 5, 6, 7, 8
Goal 4: 1, 4, 5, 6

Mathematics: 1, 2, 5

Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

Unit 3 - Numbers to 20 (Identifying, Adding, and Subtracting)
Unit Title: Numbers to 20 (Identifying, Adding, and Subtracting) Course: 1st Grade Math Brief Summary of Unit: Students will learn how to count, read, write, compare, add & subtract within 20. Textbook Correlation: Chapter 7 and 8 Time Frame: approximately 6 weeks
Calendar is taught for the first few months of school. Concepts to include during calendar time include: place value, money, ordinal numbers (Chapter 6), and the calendar objectives in Chapter 15 (Lesson 1).

Transfer
Students will be able to independently use their learning to… Use number sense to solve problems involving addition and subtraction.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • What is the value of the number? • How can you represent the value of a given number using pictures, manipulatives, numbers, or equations? • If you start at a given number, can you continue counting? • How can you count by 1's, 2's, 5's, and 10's starting at any given number up to 20? • How can you count in descending order from any given number starting at 20 or smaller? • Which operation will I use to find the number that is missing? • How are addends and sums related? • How is finding a missing addend like subtracting? • How is finding a missing minuend or subtrahend like adding? • What's the best way to find a total? • What did you do to find an answer? • Is there a different way to solve the problem? Explain. • Can you tell me how you got that answer? • How can I add or subtract to either side to make this statement true? • Why do some numbers have one digit and other numbers have two digits? • What is the best strategy to use to add when I have ten or more ones? • What is the best strategy to use if I do not have enough ones to subtract? • What is the best strategy to use when adding within 20? • What is the best strategy to use when subtracting within 20?	*Students will understand that…* • Problem solving could mean taking from, putting together, taking apart, or comparing. • Problem solving is a process. • Certain English words are used to represent different mathematical relationships. • Objects, drawings and equations can be used to represent word problems. • A symbol can be used to represent an unknown number when solving a problem. • Subtraction is the same as solving an unknown-addend problem. • There are multiple strategies to solve addition and subtraction equations. • To add or subtract with fluency means to add or subtract efficiently and with understanding. • There is a relationship between part, part, and whole. • Knowing fact families helps to find missing parts. • The equal sign does not mean reading the sign and work the problem, write the answer, or "makes". For example, 2 +2 = 4 should not be read as 2 + 2 makes 4, but rather 2 + 2 is the same as 4. • Equals means has the same quantity or value. • Numbers are made up of digits. • Each digit represents a value dependent on its place value. It might represent a one, ten, or hundred. • Each value can be represented by objects or manipulatives. • Different movements on the 120 chart represent addition and subtraction. • Numbers have a repeating pattern. • The placement of a digit affects its value. • Double digit numbers are made up of tens and ones. • The numbers 11 to 19 are made up of one ten and one or more ones. • Multiples of tens are made up of tens and no ones. • Adding two-digit numbers, a student adds tens and tens, ones and ones; and sometimes it is necessary to regroup. • Addition and subtraction facts can be related. • There are multiple strategies for addition.

Acquisition	Acquisition
Key Knowledge	Key Skills

Students will know…
 	
● Different strategies can be used to add and subtract: (Ch. 7& 8)
  ○ Manipulatives
  ○ Draw Pictures
  ○ Number Line
  ○ Branching
  ○ Counting On
  ○ Counting Back
  ○ Ten Frames
  ○ Doubles
  ○ Doubles plus one
● Vocabulary terms:
  ○ Place Value
  ○ Greatest/least
  ○ Ordinal Numbers (Sequence from least to greatest or greatest to least)
  ○ Place Value Chart
  ○ Doubles facts
  ○ Doubles plus
	Students will be able to….
	
	● Count numbers to 20. (7.1)
	● Read and write numbers to 20 in numbers and words. (7.1)
	● **Use place value chart to show numbers up to 20. (7.2)**
	● **Show objects up to 20 as tens and ones. (7.2)**
	● **Compare numbers to 20. (7.3)**
	● **Order numbers by making number patterns. (7.4)**
	● **Use different strategies (see list of strategies on left side) to add 1 and 2 digit numbers. (8.1)**
	● **Subtract a 1-digit number from a 2-digit number with and without regrouping. (8.2)**
	● **Using number bonds with tens and ones. (8.1, 8.2)**
	● **Manipulate both sides of the equation. (Ch.8)**
	● **Add or subtract to solve for the missing part. (8.1, 8.2)**
	● Estimate the answer in a way that makes sense. (Ch.7 & Ch.8)
	● **Represent, check and explain their thinking. (Ch.7 & Ch. 8)**
	● **Question and understand strategies of others. (Ch.7 & Ch. 8)**
	● **Choose and use your preferred strategy to accurately answer addition and subtraction equations. (Ch. 8)**
	● **Apply the associative and commutative property during adding or subtracting. (Students understand usage of properties but aren't expected to name properties.) (Ch. 8)**
	● **Create equivalent sums by using easier combinations of numbers. (Ch. 8)**
	● **Write fact families (related facts). (Ch.8)**
	● **Solve word problems using addition and subtraction within 20.**
	● **Given an answer or diagram, create an addition or subtraction sentence.**
	● **Order 2 or more numbers within 20 from least to greatest and greatest to least.**

Standards Alignment

MISSOURI LEARNING STANDARDS

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments and critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

1.OA.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

1.OA.4: Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

1.OA.6: Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

1.OA.7: Understand the meaning of the equal sign, and 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.

1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 +? = 11, 5 = _ – 3, 6 + 6 = _.

1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

1.NBT.2: Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

a. (1.NBT.2a) 10 can be thought of as a bundle of ten ones — called a “ten.”
b. (1.NBT.2b) The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
c. (1.NBT.2c) The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

1.NBT.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

1.NBT.4: 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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Show Me-Standards

Goal 1: 1, 4, 5, 6, 7, 8
Goal 2: 2, 3, 7
Goal 3: 1, 2, 3, 4, 5, 6, 7, 8
Goal 4: 1, 4, 5, 6

Mathematics: 1, 5

Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

Unit 4 - Measurement and Data
Unit Title: Measurement and Data Course: 1st Grade Math Brief Summary of Unit: Students will be able to collect data and use it to answer questions. Textbook Correlation: Chapter 9, 10 and 11 Time Frame: approximately 2 weeks

Transfer
Students will be able to independently use their learning to… Collect, organize, interpret data, read graphs and charts in informational texts.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • Which object is longer? Longest? Shorter? Shortest? How do you know? • What is the length of an inch? • What is a nonstandard form of measurement? • What is a standard form of measurement? • When do you use standard and nonstandard units of measurement? • Where does my ruler start when measuring the object? • What are some objects I can use to help me measure? • What is the best method to measure length? • Which has the most? • Which has the least? • Are any the same amount? • How can I weigh the item?	*Students will understand that…* • You compare objects using short, shorter, shortest, long, longer, and longest. • You can compare objects using a third object. • The length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. • Rulers are used to measure the length of objects. • Graphs represent data. • Graphs can be displayed in a variety of ways (bar, circle, line, tally, pictorial, etc.). • Data means collected information on a topic. • When comparing data, the terms more than and less than can be used. • You can weigh an item using non-standard units. • Items weigh different amounts and can be lighter or heavier than other items.

Acquisition	Acquisition
Key Knowledge	Key Skills

Students will know…
 	
● A fourth is one of 4 equal parts. (5.1)
● The weight of an item is how heavy or light the item is. (10.1)
● Items can be weighed. (10.1-10.3)
● A unit is a quantity used for measuring an item. (9 and 10)
● Items can be measured using standard and non-standard units. (9 and 10)
● Equal parts in fractions means same size. (not in chapter)
 	
● Vocabulary terms:
  ○ long, longer, longest
  ○ short, shorter, shortest
  ○ light, lighter, lightest
  ○ heavy, heavier, heaviest, as heavy as
  ○ more, less, fewer, equal to
	Students will be able to….
	
	● Use a ruler (where the ruler measurements begin) to measure to the nearest inch. (9.1, 9.3, 9.4, 9.5)
	● **Measure an object using non-standard units in whole numbers.**
	● **Align objects with no gap or overlap. (9.1-9.4)**
	● Compare the length of three objects. (9.2)
	● Compare weights using non-standard units. (10.1)
	● Compare items using the terms: light, lighter, lightest; heavy, heavier, heaviest, as heavy as (10.1)
	● Use common objects as non-standard units to measure and compare weight. (10.2-3)
	● Organize data on a graph (bar, circle, tally). (11)
	● **Use adding and subtracting of whole numbers to compare data on a graph. (11.1-11.3)**
	● **Collect and organize data in the following ways: (11.1-11.3)**
	  ○ **use tallies to help count data**
	  ○ **make a table**
	  ○ **collect data**
	  ○ **construct a bar graph**
	  ○ **construct picture graph**
	● **Interpret the data on a graph (picture or bar): (11.1-11.3)**
	  ○ **show data as a picture graph**
	  ○ **compare data on a picture graph using more, most, few, fewer, fewest**
	  ○ **draw a picture graph**
	  ○ **use and interpret symbols to represent data in a picture graph**

Standards Alignment

MISSOURI LEARNING STANDARDS

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments and critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

1.MD.1: Order three objects by length; compare the lengths of two objects indirectly by using a third object.

1.MD.2: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps. (Using standard and non-standard units)

1.MD.4: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Show Me-Standards

Goal 1: 1, 4, 5, 6, 7, 8

Goal 2: 2, 3, 7

Goal 3: 1, 2, 3, 4, 5, 6, 7, 8

Goal 4: 1, 4, 5, 6

Mathematics: 1, 2, 3, 5

Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

Unit 5- Numbers to 40 (Identifying, Adding, and Subtracting)
Unit Title: Numbers to 40 (Identifying, Adding, and Subtracting) Course: 1st Grade Math Brief Summary of Unit: Students will learn how to read, write, count, compare, add & subtract numbers within 40. Textbook Correlation: Chapter 12, 13, and 14 Time Frame: approximately 7 weeks

Transfer
Students will be able to independently use their learning to… *Use number sense, addition and subtraction to solve problems.*

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • What is the value of the number? • How can you count by 1's, 2's, 5's, and 10's starting at any given number up to 120? • How can you count in descending order from any given number starting at 120 or smaller? • Why do some numbers have one digit and other numbers have two digits? • How can you represent the value of a given number using pictures, manipulatives, numbers, or equations? • How can you compare two numbers by looking at the tens and ones place? • What is the best strategy to use when adding within 100? • What is the best strategy to use when subtracting within 100? • What will I do if I do not have enough ones to subtract? • What is the best way to add on or take away 10? • How did you solve this problem and why was that the most efficient way to solve? • What's the best way to find a total? • How do you find how many are left? • What did you do to find an answer? Is there a different way? Explain. • How does the order of numbers in a problem affect the solution? • How are addition and subtraction related? • What do you know about a given number? • What do you see when you look at this problem? • How are addends and sums related to subtraction? • Do you notice any patterns? • How are addends and sums related? • How is family a missing minuend or subtrahend like adding?	*Students will understand that…* • Each digit represents a value dependent on its place value. It might represent a one, ten, or hundred. • Different movements on the 120 chart represent addition and subtraction. • Double digit numbers are made up of tens and ones. • Multiples of tens are made up of tens and no ones. • When adding two-digit numbers, a student adds tens and tens, ones and ones; and sometimes it is necessary to regroup. • Addition and subtraction facts can be related. • Numbers have value and symbols have meaning. • Terms more and less mean one number has greater value than another. • Problem solving with addition and subtraction could mean taking from, putting together, taking apart, or comparing. • Certain English words are used to represent different mathematical relationships. • Problem solving is a process. • Objects, drawings and equations can be used to represent word problems. • A symbol can be used to represent an unknown number when solving a problem. • Addends can be added in any order to get the sum. • Making tens is an efficient way to add and subtract. • Understanding subtraction is the same as solving an unknown-addend problem. • To add or subtract with fluency means to add or subtract efficiently and with understanding.

Acquisition	Acquisition
Key Knowledge	Key Skills

Students will know…
 	
● Number Bonds (Ch. 12, Ch. 13 & Ch. 14)
● How to use concrete models, drawings, or strategies (Ch. 12 & Ch. 13)
● Comparing and contrasting amounts to solve for which is more or less and how much more or how much less. (Ch. 12, Ch. 13 & Ch. 14)
● The relationship between addition and subtraction. (13-6)
● Addition and subtraction strategies: manipulatives, pictures, number lines, counting on, counting back, doubles, doubles plus one, ten frames, place value charts and branching. (Ch. 13 & Ch. 14)
● The distributive property. (Ch. 13 & Ch. 14)
● Addition and subtraction are inverse operations when adding numbers. (13-6)
 	
● Vocabulary terms:
  ○ addend, sum, minuend, subtrahend, difference
  ○ greater than > (13-1, 13-3)
  ○ less than < (13-1, 13-3)
  ○ equal to = (Ch. 13 & Ch. 14)
	Students will be able to….
	
	● **Count by 1's, 2's, 5's and 10's in ascending and descending order from 0 to 40. (Ch. 12, 13-1, 13-2, 13-3, Ch. 14)**
	● **Represent the value of a numeral using objects or manipulatives from 0 to 40. (Ch. 12, Ch. 13)**
	● **Identify the tens and ones used to compose a given number. (Ch. 12, 13-1, 13-2, 13-5, 14-1)**
	● **Interchange the terms greater than, less than, and equal to when comparing two 2-digit numbers. (Ch. 12, 13-1, 13-3)**
	● **Explain their reasoning for using a strategy. (Ch.12, 13, & 14)**
	● **Count by tens in ascending and descending order starting at any number. (Ch. 12, 13, & 14)**
	● **Build a ten using ones. (Ch. 12, 13-1, 13-2, 13-5, 14-1)**
	● **Compare two 2-digit numbers. (Ch. 13 & Ch. 14)**
	● **Write an equation. (Ch. 12 & 13)**
	● **Decompose two-digit numbers into 10s and 1s. (13-3, 13-4, 14-2)**
	● **Add within 40 both with and without regrouping including two-digit numbers using the strategies below:**
	  ○ **Add 3 single digit numbers together.**
	  ○ **Mentally add 1-digit numbers.**
	  ○ **Mentally add a 1-digit number to a 2-digit number.**
	  ○ **Mentally add a 2-digit number to tens.**
	  ○ **Mentally subtract 1-digit numbers.**
	  ○ **Mentally subtract a 1-digit number from a 2-digit number.**
	  ○ **Mentally subtract tens from a 2-digit number.**
	  ○ **Count up to solve addition problems to 40. (13-1, 13-2, 13-5, 13-6, 14-1)**
	  ○ **Count down back to solve subtraction problems to 40. (13-3, 13-4, 13-6,14-2)**
	● **Compute addition and subtraction problems. (Ch. 13 & Ch. 14)**
	● **Add or subtract for the missing part. (Ch. 13 & Ch. 14)**
	● **Add and subtract multiples of ten from 10 - 40. (Ch. 13 & 14)**
	● **Reasonably approach problem and estimate the**

	answer. (Ch. 13 & Ch. 14) ● **Add and subtract fluently within 40. (Ch. 13 & Ch. 14)** ● **Question and understand strategies of others. (Ch. 13 & Ch. 14)** ● **Apply the associative and commutative properties. (Students do not need to be able to use names of properties.) (Ch. 13 & Ch. 14)** ● **Add or subtract to find the missing part. (13-1, 13-2, 14-1)** ● **Explain the relationship between addition and subtraction. (13-6)** ● **Compare numbers within 40 using words and symbols.** ● **Fill in missing numbers within 40 in a pattern.** ● **Add 3 single digit numbers together.** ● **Mentally add 1-digit numbers.** ● **Mentally add a 1-digit number to a 2-digit number.** ● **Mentally add a 2-digit number to tens.** ● **Mentally subtract 1-digit numbers.** ● **Mentally subtract a 1-digit number from a 2-digit number.** ● **Mentally subtract tens from a 2-digit number.** ● **Count up to solve addition problems to 40. (13-1, 13-2, 13-5, 13-6, 14-1)** ● **Count down back to solve subtraction problems to 40. (13-3, 13-4, 13-6,14-2)**

Standards Alignment

MISSOURI LEARNING STANDARDS

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments and critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

1.NBT.2: Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the

following as special cases:

a. (1.NBT.2a) 10 can be thought of as a bundle of ten ones — called a "ten."
b. (1.NBT.2b) The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
c. (1.NBT.2c) The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

1.NBT.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

1.NBT.4: 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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

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.

1.NBT.6: Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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.

1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

1.OA.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

1.OA.3: Apply properties of operations as strategies to add and subtract. 3 *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*

1.OA.4: Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

1.OA.7: Understand the meaning of the equal sign, and 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.

1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ – 3, 6 + 6 = _.

Show Me-Standards

Goal 1: 1, 4, 5, 6, 7, 8
Goal 2: 2, 3, 7
Goal 3: 1, 2, 3, 4, 5, 6, 7, 8
Goal 4: 1, 4, 5, 6

Mathematics: 1, 5

Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

Unit 6 - Numbers to 120, Adding and Subtracting to 100
Unit Title: Numbers to 120, Adding and Subtracting to 100 Course: 1st Grade Math Brief Summary of Unit: Students will learn to read, write, count, compare, add and subtract numbers within 120. Textbook Correlation: Chapters 16 and 17 Time Frame: approximately 7 weeks

Transfer
Students will be able to independently use their learning to… *Use number sense, addition and subtraction to solve problems*

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • What is the value of the number? • How can you count by 1's, 2's, 5's, and 10's starting at any given number up to 120? • How can you count in descending/ascending order from any given number starting at 120 or smaller? • Why do some numbers have one digit and other numbers have two digits and some have 3 digits? • How can you represent the value of a given number using pictures, manipulatives, numbers, or equations? • How can you compare these two numbers by looking at the hundreds, tens and ones place? • What strategy did you use? • Why did you use that strategy? • What is the most efficient strategy to use when adding/subtracting within 100? • What strategy will I use to add when I have ten or more ones? • What strategy will I use if I do not have enough ones to subtract? • What do you know about a given number? • What do you see when you look at this problem? • How are addends and sums related to subtraction? • Do you notice any patterns? • How is counting on related to addition? • How is counting back related to subtraction? • How are addends and sums related? • How is finding a missing addend like subtracting? • How is finding a missing minuend or subtrahend like adding?	*Students will understand that…* • Each digit represents a value dependent on its place value. It might represent a one, ten, or hundred. • Each value can be represented by objects or manipulatives or numbers. • Different movements on the 120 chart represent addition and subtraction. • Numbers have a repeating pattern. • The placement of a digit affects its value. • Multiples of tens are made up of hundreds, tens and no ones. • When adding two-digit numbers, a student adds tens and tens, ones and ones; and sometimes it is necessary to regroup. • Addition and subtraction facts can be related. • There are multiple strategies for addition. • Numbers have value and symbols have meaning. • Terms more and less mean one number has greater value than another. • Subtraction is the same as solving an unknown-addend problem. • Counting on relates to addition and counting back relates to subtraction. • There is a relationship between part, part, and whole. • Knowing fact families help to find missing parts.

Acquisition	Acquisition
Key Knowledge	Key Skills

Students will know…
 	
● Sequential numbers have patterns. (16.1 & 16.3)
● Numbers are made up of one or more digits. (16.1 & 16.2)
● Numbers have order. (16.1)
● Know the digit in the tens place refers to the number of groups of ten in the number. (16.2)
● The digits in the hundreds place represent the number of groups of one hundred in the number. (16.2)
● How to compare two 2-digit numbers using: (16. 3)
  ○ greater than > ○ less than < ○ equal to (or same as) = ○ more and less
● The relationship between addition and subtraction (Ch. 17)
● How to use the associative and commutative properties, but it is not expected that the students use the terms. (Ch. 17)
● Number bond relationship. (Ch. 17)
 	
● Vocabulary terms:
  ○ addend, sum, minuend, subtrahend, difference ○ estimate ○ number line ○ fifty, sixty, seventy, eighty, ninety, one hundred
	Students will be able to….
	
	● **Count by 1's, 2's, 5's and 10's in ascending and descending order from or to 120. (16. 1)**
	● **Read and write to 120 in numbers and words. (16. 1)**
	● **Represent the value of a numeral using groups of ones, tens, and hundreds from or to 120. (16. 2)**
	● **Identify the hundreds, tens and ones used to compose and decompose a given number. (16. 2)**
	● **Use a place value board to represent numbers. (16. 2)**
	● **Find a missing number in a number pattern. (16.3)**
	● **Interchange the terms greater than, less than and equal to when comparing two 2-digit numbers verbally and with symbols. (< > =) (16.3)**
	● **Add within 100 with and without regrouping using:**
	  ○ **place value boards** ○ **left to right** ○ **vertical addition** ○ **number bond** ○ **traditional algorithm** ○ **making ten** ○ **120s chart**
	  (17.1, 17.2, 17.3, 17.4)
	● Explain how two different methods of adding are related. (Ch. 17)
	● **Determine whether to use addition or subtraction when solving word problems. (Ch. 17)**
	● **Use concrete models, drawings, and strategies. (Ch. 17)**
	● **Subtract multiples of ten from 10 - 90. (17. 3, 17.4)**
	● **Show their work in an equation.**
	● **Find a missing addend. (17.3, 17. 4)**
	● **Verbally explain their reasoning for using a strategy.**
	● **Use a number line to add or subtract.**
	● **Solve word problems using addition and subtraction with multiple strategies including model drawing.**

Standards Alignment

MISSOURI LEARNING STANDARDS

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments and critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

1.NBT.2: Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

a. (1.NBT.2a) 10 can be thought of as a bundle of ten ones — called a "ten."
b. (1.NBT.2b) The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
c. (1.NBT.2c) The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

1.NBT.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

1.NBT.4: 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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

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.

1.NBT.6: Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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.

1.OA.4: Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

1.OA.7: Understand the meaning of the equal sign, and 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.

1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 +? = 11, 5 = _ – 3, 6 + 6 = _.

Show Me-Standards

Goal 1: 1, 4, 5, 6, 7, 8
Goal 2: 2, 3, 7
Goal 3: 1, 2, 3, 4, 5, 6, 7, 8
Goal 4: 1, 4, 5, 6

Mathematics: 1, 5

Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

Unit 7- Money
Unit Title: Money Course: 1st Grade Math Brief Summary of Unit: Students will learn how to recognize, name, and count money. Textbook Correlation: Chapter 19 Time Frame: approximately 1-2 weeks

Transfer
Students will be able to independently use their learning to… Use money in everyday life.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… ● Why do I need to know about money? ● How do I recognize a penny, nickel, dime and quarter? ● What is the best way to add money? ● What is the best way to subtract money?	*Students will understand that…* ● Money has value. ● Money is used to buy things. ● Adding and subtracting with money is similar to adding and subtracting numbers.

Acquisition	Acquisition
Key Knowledge	Key Skills
Students will know… ● The value of a penny, nickel, dime, quarter, dollar. ● The cent symbol and dollar symbol. (19.1) ● Coin equivalencies. (19.2) ● How to count like coins to $1. (19.3) ● How to count mixed coins to $1. (19.3) ● That adding and subtracting money is similar to adding and subtracting numbers (how much items cost, how much change they should get back). (19.4)	*Students will be able to….* ● Recognize a penny, nickel, dime, quarter and dollar. (19.1) ● Skip count to find the value of a collection of coins. (19.1) ● Use different combinations of coins to show the same value. (19.1 and 19.3) ● Recognize and name a quarter. (19.2) ● Exchange a quarter for a set of coins of equal value (19.2) ● Count money in cents up to $1 using the “count on” strategy. (19.3) ● Add and subtract money in cents (up to $1) using number bonds, branching, traditional algorithm. (19.4) ● Solve real-world problems involving addition and subtraction of money (add to find the total cost of a group of items, subtract to find the change). (19.4)

Standards Alignment

MISSOURI LEARNING STANDARDS

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments and critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

1.NBT.4: 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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

1.NBT.6: Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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.

1.OA.4: Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

1.OA.7: Understand the meaning of the equal sign, and 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.

Show Me-Standards

Goal 1: 1, 4, 5, 6, 7, 8
Goal 2: 2, 3, 7
Goal 3: 1, 2, 3, 4, 5, 6, 7, 8
Goal 4: 1, 4, 5, 6

Mathematics: 1, 5

Wentzville School District
Curriculum Development Template
Stage 1 – Desired Results

Unit 8 - Multiplication and Division
Unit Title: Multiplication and Division Course: 1st Grade Math Brief Summary of Unit: Students will understand that multiplying is the same as adding equal groups. Dividing is the same as sharing things equally or putting things into equal groups. Textbook Correlation: Chapter 18 Time Frame: approximately 2 weeks

Transfer
Students will be able to independently use their learning to… Share a group of objects equally among a number of people.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… ● How do I determine how many groups and how many objects are in each group? ● What other strategies can you use to represent objects being shared in groups?	*Students will understand that…* ● Counting up by the same number is the same as multiplication. ● Counting back by the same number is the same as division. ● Groups of objects can be split into equal groups.

Acquisition	Acquisition
Key Knowledge	Key Skills
Students will know… ● That multiplication is repeated addition. (18-1) ● That division is repeated subtraction. (18-3)	*Students will be able to….* ● Add the same number. (18-1) ● Use objects or pictures to find the total number of items in groups of the same size. (18-1) ● Relate repeated addition to the concept of multiplication. (18-1) ● Arrange items into rows/columns. (18-1) ● Use objects or pictures to find the number of items in each group when sharing equally. (18-2) ● Relate sharing equally to division. (18-2) ● Make equal groups and determine if there are any objects left over. (18) ● Solve word problems using multiplication/division (18-2) ● Use objects or pictures to show division as finding the number of equal groups. (18-3)

Standards Alignment

MISSOURI LEARNING STANDARDS

MP.1 Make sense of problems and persevere in solving them.
MP.2 Reason abstractly and quantitatively.
MP.3 Construct viable arguments and critique the reasoning of others.
MP.4 Model with mathematics.
MP.5 Use appropriate tools strategically.
MP.6 Attend to precision.
MP.7 Look for and make use of structure.
MP.8 Look for and express regularity in repeated reasoning.

1.NBT.4: 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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Show Me-Standards

Goal 1: 1, 4, 5, 6, 7, 8
Goal 2: 2, 3, 7
Goal 3: 1, 2, 3, 4, 5, 6, 7, 8
Goal 4: 1, 4, 5, 6

Mathematics: 1, 5