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 5
Unit Title: Numbers to 5 Course: Kindergarten Math Brief Summary of Unit: In this unit, students will learn how to identify, write, and compare numbers to 5. Students will begin to count orally and use one to one correspondence. Textbook Correlation: *Math in Focus* Chapter 1 Time Frame: approximately 3 weeks
Calendar Focus: (can use chapter 11 as a resource) See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather For this Unit: AB Patterns

Transfer
Students will be able to independently use their learning to… understand that numbers are used in the real-world.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • Where can I use counting? • Why count? • What number? • What number comes before? • What comes next? • How do I use numerals? • How do I represent no objects? • What is the best way to count a group of objects? • How can you determine "how many?" • What strategy did you use to count? • How do I make sure I count each object? • What number did I end on? • How many? • What are different ways to arrange "how many?" • What if I add one more? • Where do I start and finish? • How do I know if a number is greater than another? • How do I know if a number is less than another? • How do I know if a number is equal to another?	*Students will understand that…* • Each number is unique, has its own digits. • Numbers are represented by symbols, numbers have meaning. • Numbers have names and represent a specific quantity. • Numbers have order based on quantity. • The number zero represents no objects. • When counting objects, each object represents one number. • Each object is only counted once. • The last number named when counting is the number of objects in the group. • Quantity of objects will be the same regardless of arrangement. • When counting, the next number in sequence is represented by one additional object. • Grouping objects into smaller groups help us count more efficiently.

Acquisition	Acquisition
Key Knowledge	Key Skills
Students will know… • When counting you must say each number in consecutive order. • The quantity that represents each numeral. • The quantity that represents each number when counting. • Strategies used to count with one to one correspondence. • Strategies to compare the set number of groups. • Vocabulary terms: Count Greater than Less than Equal to	*Students will be able to….* • Start at 1 and count to 5, independently. • Count objects with one to one correspondence to five. • Identify numbers 0-5. • Given a number between 0 and 5 count out that many objects. • Write numbers legibly 0 – 5 in sequential order. • Develop a counting method for accuracy. • Name the number of objects in a given set up to five. • Name the number of objects in a given set when one object is added up to five. • Look at a group of dots, counters etc. between 0 and 5 objects in a five/ten frame and be able to identify the number of objects. (beginning subitizing) • Look at a group of dots, counters, etc. between 0 and 5 objects, not in a ten frame and be able to identify the number of objects. (more advanced subitizing) • Match objects of one group to objects of another group. • Compare numerals using the terms greater than, less than, and equal to. • Compare the set number of groups.

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.

K.CC.1: Count to 100 by ones and by tens.
K.CC.3: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality.
  a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
  b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
  c. Understand that each successive number name refers to a quantity that is one larger.
K.CC.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, rectangular array, or a circle, or as many as 10 things scattered configuration; given a number from 1-20, count out that many objects.
K.CC.6: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
K.CC.7: Compare two numbers between 1 and 10 presented as written numeral.

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 - Numbers to 10
Unit Title: Numbers to 10 Course: Kindergarten Math Brief Summary of Unit: In this unit, students will learn how to identify, write, and compare numbers to 10. Students will begin to count orally and use one to one correspondence. Textbook Correlation: *Math in Focus* Chapters 2 and 4 Time Frame: approximately 4 weeks
Calendar Focus: See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather This Unit: AB Patterns

Transfer
Students will be able to independently use their learning to… understand that numbers are used in the real-world.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • Where can I use counting? • Why count? • What number? • What number comes before? • What comes next? • How do I use numerals? • How do I represent no objects? • What is the best way to count a group of objects? • How can you determine "how many?" • What strategy did you use to count? • How do I make sure I count each object? • What number did I end on? • How many? • What are different ways to arrange "how many?" • What if I add one more? • Where do I start and finish? • How do I know if a number is greater than another? • How do I know if a number is less than another? • How do I know if a number is equal to another?	*Students will understand that…* • Each number is unique, has its own digits. • Numbers are represented by symbols and they have meaning. • Numbers have names and represent a specific quantity. • Numbers have order based on quantity. • The number zero represents no objects. • When counting objects, each object represents one number. • Each object is only counted once. • The last number named when counting is the number of objects in the group. • Quantity of objects will be the same regardless of arrangement. • When counting, the next number in sequence is represented by one additional object. • Grouping objects into smaller groups help us count more efficiently.

Acquisition	Acquisition
Key Knowledge	Key Skills
Students will know… • When counting you must say each number in consecutive order. • Each object is counted only once. • The quantity that represents each numeral. • The quantity that represents each number when counting. • Strategies used to count with one to one correspondence. • Strategies to compare the set number of groups. • Vocabulary terms: count greater than less than equal to	*Students will be able to….* • Start at 1 and count to 10, independently. • Count objects with one to one correspondence to five • Identify numbers 0-10. • Given a number between 0 and 10, count out that many objects. • Write numbers legibly 0 – 10 in sequential order. • Develop a counting method for accuracy. • Name the number of objects in a given set up to ten. • Name the number of objects in a given set when one object is added up to ten. • Look at a group of dots, counters etc. between 0 and 10 objects in a five/ten frame and be able to identify the number of objects. (beginning subitizing) • Look at a group of dots, counters, etc. between 0 and 10 objects, not in a ten frame, and be able to identify the number of objects. (more advanced subitizing) • Match objects of one group to objects of another group. • Compare numerals using the terms greater than, less than, and equal to. • Compare the set number of groups.

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.

K.CC.1: Count to 100 by ones and by tens.
K.CC.3: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality.
a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
c. Understand that each successive number name refers to a quantity that is one larger.
K.CC.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, rectangular array, or a circle, or as many as 10 things scattered configuration; given a number from 1-20, count out that many objects.
K.CC.6: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
K.CC.7: Compare two numbers between 1 and 10 presented as written numeral.

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
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Unit 3 - Shapes
Unit Title: Shapes Course: Kindergarten Math Brief Summary of Unit: In this unit, students will identify, compare, manipulate, construct, and describe properties of two- and three-dimensional shapes. Students will describe an object's spatial relationship using positional words (ex: above, below, beside, in front of, behind, and next to, between, over, under, around). Textbook Correlation: *Math in Focus* Chapters 5 and 7 Time Frame: approximately 6 weeks
Calendar Focus: See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather This Unit: Shapes (two- and three-dimensional): AB and ABC patterns with shapes

Transfer
Students will be able to independently use their learning to… use the names of shapes to describe objects around them.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • Why do shapes have special names? • What makes this shape 2-D? • What makes this shape 3-D? • Where can you find a _____ (2-D or 3-D shape) in the classroom/environment? • What makes this shape a _____(insert shape name)? • How are these shapes similar? • How are these shapes different? • How would you describe this shape? • How do you know these sides are equal? • What shapes can I use to make a _____ (shape)? • How can I make a _____ (shape)? • What would happen if I put these shapes together? • What shapes can you make out of a _____ (shape)? • How could you decompose this shape? • What would happen if we changed the size of the shape? • What would happen if we turned the shape? • How can ____ be positioned in relation to another object(s)? • How can you describe the shapes position?	*Students will understand that…* • Shapes have names. • Some shapes are flat and some shapes are solid. • Flat shapes are 2-dimensional. • Shape names stay the same regardless of size and position. • Solid shapes are 3-dimensional. • Shapes can be described by the number of sides, number of vertices, and other special attributes. • Real world objects can be described using 2-dimensional or 3-dimensional shapes. • Shapes can be created using materials from the environment. • Shapes can be composed from other shapes. • Shapes can be decomposed (taken apart) to form other shapes. • Shapes can be formed by composing two simple shapes and will have a new name. • Shapes can be in multiple positions in space. • Positions of objects can be described using specific vocabulary.

Acquisition	Acquisition
Key Knowledge	Key Skills **(Priority Key Skills are bolded.)**
Students will know… • 2 dimensional shapes are flat. • 2 dimensional shapes cover an area. • Name of the shape remains the same regardless of size. • Name of the shape remain the same regardless of position. • Solid shapes take up space • Attributes of shapes (ex: a square has 4 equal sides and 4 vertices) • A larger shape can be broken down into 2 smaller shapes. • Two smaller shapes can form a larger shape. • Positional Words (ex: above, below, beside, in front of, behind, and next to, between, over, under, around). • Vocabulary: vertices corners sides equal length similar different 2-dimensional 3-dimensional edges faces	*Students will be able to….* • **Identify 2-D shapes (square, circle, triangle, rectangle, rhombus, oval, heart, star, hexagon).** • Identify 2-D shapes in the classroom/environment. . Draw a real world picture using 2-dimensional shapes. (For instance, using a square, triangle, and 2 rectangles to draw a house. • **Identify 3-D shapes (cube, cone, cylinder, sphere, rectangular prism, pyramid).** • Identify 3-D shapes in the classroom/environment. • Construct a real world object using 3-dimensional shapes. . Manipulate materials to make shapes. (For example: The sticks would represent the sides of the shape and the clay balls would represent the corners/vertices of the shape.) • Look at a real world object and describe using shape names. • Match similar shapes of varying sizes and positions. • Name similar shapes of varying sizes and positions. • Use shape names to describe objects. • **Given an object, describe the object as flat or solid.** • **Given an object, describe the object as 2-dimensional or 3-dimensional shapes.** • Name a shape based on given attributes. • Sort shapes based on attributes. • Identify shapes that have equal sides. • State the number of sides and number of vertices a shape has. • Describe a shape using specific attributes. . Compare similarities and differences among shapes. • Describe the difference between 2-D and 3-D shapes. • Draw 2-D shapes when prompted (ex: “draw a square,” student draws square). • Create 2-D and 3-D shapes using manipulatives. • Manipulate/join shapes to create new shapes. . Decompose (take apart) a shape into 2 smaller shapes. (example: A rectangle can be broken into 2 squares. A larger triangle can be broken into 2 smaller triangles) • **Represent the positional word using objects and/or pictures.** • Look at a picture and describe relationship of objects using positional words.

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.

K.G.1: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above, below, in front of, and next to.*
K.G.2: Correctly name shapes regardless of their orientations or overall size.
K.G.3: Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
K.G.4: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g. Number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).
K.G.5: Model shapes in the world by building shapes from components (e.g., stick and clay balls) and drawing shapes.
K.G.6: Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*

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 4 - Numbers to 20
Unit Title: Numbers to 20 Course: Kindergarten Math Brief Summary of Unit: In this unit, students will identify, write, and compare numbers to 20. Students will count orally and use one to one correspondence. Students will be introduced to place value through tens frames and regrouping with disks. Textbook Correlation: *Math in Focus* Chapter 6 Time Frame: approximately 4 weeks
Calendar Focus: See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather This Unit: Regrouping Breaking apart numbers

Transfer
Students will be able to independently use their learning to… understand that numbers are used in the real-world.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • Why count? • Where can I use counting? • How do I use numerals? • What number? • What number comes before? • What number comes after? • How do I represent no objects? • What are different ways to arrange "how many?" • How can you determine "how many?" • How many? • What strategy did you use to count? • Where do I start and finish? • How many more? • What is the best way to count of group of objects? • How do I make sure I count each object? • What number did I end on? • What if I add one more? • What comes next? • How do I trade (regroup)? • What do I do when I have ten? • What do I do with the extra ones? • What strategy did you use?	*Students will understand that…* • Numbers have names. • Numbers have quantity. • Each number is unique, has its own digits. • Numbers are represented by symbols, numbers have meaning. • There is an order to numbers. • When counting objects, each object represents one number. • Each object is only counted once. • Regardless of arrangement, the quantity of objects in a group does not change. • The number zero represents no objects. • When counting, the next number in sequence is represented by one additional object. • The last number named when counting is the number of objects in the group. • Grouping objects into smaller groups help us count more efficiently. • Patterns can help me count. • After counting to 9 (or 19, 29, 39, etc.) the counting pattern changes. • Two digit numbers are made of groups of 10 and additional ones. In kindergarten, the focus is numbers 0-20. • Numbers in the ones place can only go up to nine. A group of ten ones can be traded for (regrouped) one group of ten.

Acquisition	Acquisition
Key Knowledge	Key Skills
Students will know… • When counting they must say each number in consecutive order. • Each numeral represents a specific quantity of objects up to 20. • Vocabulary: numeral names trade (regroup) "tens" "ones"	*Students will be able to….* • Count forward from ten. • Name the number of objects in a given set. • Count objects with one to one correspondence. • Given a number between 0 and 20, count out that many objects. • Rote count to 20. • Develop a counting method for accuracy. • Count as many as 20 objects arranged in a line, circle, or rectangular array. • Identify numbers 0-20. • Represent a group of objects with the corresponding numeral. • Write numbers legibly 0 – 20. • Write numbers 0 – 20 in sequential order. • Name the number of objects in a given set when one more object is added. • Represent a number 11-19 through drawings or equations with a base of ten. (one part being 10). • Look at a group of dots, counters etc. between 0 and 20 objects in a ten frame and be able to identify the number of objects. (beginning subitizing) • Look at a group of dots, counters, etc. between 0 and 20 objects, not in a ten frame and be able to identify the number of objects. (more advanced subitizing) • Look at a group of objects (between 10 and 20) and put 10 in a group and identify the remaining ones. • Decompose a number (between 10 and 20) into a group of ten and ones. • Represent a number 11 - 19 using a number bond with 10. • Use a tens frame and place value disks to regroup when there are 10 or more ones. • Use a pictorial representation of a tens frame and place value disks to regroup when there are 10 or more ones. • Read numbers (15 they know it represents 15 and not 1 object and 5 objects.)

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.

K.NBT.1: Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g. 18=10+8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine

K.CC.1: Count to 100 by ones and by tens.

K.CC.3: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality.

a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
c. Understand that each successive number name refers to a quantity that is one larger.

K.CC.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, rectangular array, or a circle, or as many as 10 things scattered configuration; given a number from 1-20, count out that many objects.

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 5 - Sorting and Comparing
Unit Title: Sorting and Comparing Course: Kindergarten Math Brief Summary of Unit: In this unit, students will sort and compare sets and numbers based on attributes and quantities. Textbook Correlation: *Math in Focus* Chapters 9 and 16 Time Frame: approximately 4 weeks
Calendar Focus: See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather-comparing quantities This Unit: Sorting by size, shape, and color Introduce counting by 10's

Transfer
Students will be able to independently use their learning to… sort real world objects based on similarities and differences.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • How are these shapes similar? • How are these shapes different? • How would you describe this shape? • How can you determine "how many?" • What strategy did you use to count? • Where do I start and finish? • What are different ways to arrange "how many?" • Why does the object belong in this group? • Why doesn't the object belong in this group? • How can I describe the differences between objects? • What attributes are we comparing? • What objects are we comparing? • When (in the real world) is it important to know if two quantities are more than, less than or equal to? • What is the best way to decide if there is more? or if there is less? or if there are equal amounts? • How do I know if a number is greater than another? • How do I know if a number is less than another? • How do I know if a number is equal to another? • How do these groups differ? • How are these groups alike? • What is the best way to sort this group? • What is another way I could sort this group?	*Students will understand that…* • Shapes can be sorted the number of sides, number of vertices, color, size and shape. • Each number name represents an object with the last number said representing the whole group. • Each group of objects represents a quantity. • Each object is only counted once. • One to one correspondence of objects between groups. • Regardless of arrangement, the quantity of objects in a group does not change (numbers to 20 follow the same pattern/rules as numbers to 10). • Objects can be grouped by attributes. • "Greater than" means more. • "Less than" means fewer. • "Equal to" means same amount.

Acquisition	Acquisition
Key Knowledge	Key Skills **(Priority Key Skills are bolded.)**
Students will know… • Attributes of shapes (ex: a square has 4 equal sides and 4 vertices). • Each numeral represents a specific quantity of objects up to 20. • Each object is counted only once. • The quantity that represents each numeral. • The quantity that represents each number when counting. • Strategies used to count with one to one correspondence. • Strategies to compare the set number of groups. • Vocabulary: vertices corners sides equal length similar different 2-dimensional 3-dimensional edges faces greater than less than equal to color pattern size sort	*Students will be able to….* • Sort shapes based on attributes. • State the number of sides and number of vertices a shape has. • Compare similarities and differences among shapes. • Develop a counting method for accuracy. • Count objects with one to one correspondence. • Name the number of objects in a given set. • Count to 20. • Count as many as 20 objects arranged in a line, circle, or rectangular array. • Count as many as 10 objects in a scattered arrangement. • Match objects of one group to objects of another group. • Use matching and counting strategies to compare two numbers. • Compare numerals using the terms greater than, less than, and equal to. • **Compare quantity of two groups of objects using the terms greater than, less than, and equal to.** • Identify objects that do not belong to a set. • Classify objects according to two or three attributes. • Sort objects by one or two attributes (color, size, shape, or special features).

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.

K.G.4: Analyze and compare two- and three-dimensional shapes, in different sizes orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g. having sides of equal length).
K.CC.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.
K.CC.6: Identify whether the number of objects in one group is greater than less than, or equal to the number of objects in another group, e.g. by using matching and counting strategies.
K.CC.7: Compare two numbers between 1 and 10 presented as written numerals.

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 - Measurement
Unit Title: Measurement Course: Kindergarten Math Brief Summary of Unit: In this unit, students will use non-standard measurement to determine the height, weight, and length of objects. Students will also learn length of time and capacity. Students will compare objects using measurable attributes. Textbook Correlation: *Math in Focus* Chapters 3, 15, and 19 Time Frame: approximately 3 weeks
Calendar Focus: See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather This Unit: Review patterns (can use chapter 13 as a resource) Review shapes Introduce counting by 5's

Transfer
Students will be able to independently use their learning to… describe quantitative properties of objects.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • Why does the object belong in this group? • Why doesn't the object belong in this group? • How can I describe the differences between objects? • What attributes are we comparing? • What objects are we comparing? • Which unit of measurement will I use? • Where do I begin to measure an object by length/height? • How long? • How tall? • How heavy? • What is the best way to measure this object? Why? • Should I measure the length, height, or weight? Why?	*Students will understand that…* • Objects can be sorted by their attributes. • Objects can be described and compared by their attributes. • Objects can be compared and measured based on different physical/ measurable attributes. • Different tools can be used for measuring objects. • More units are needed to measure a longer object than a shorter object. • Events can take different lengths of time. • Containers can hold different amounts.

Acquisition	Acquisition
Key Knowledge	Key Skills **(Priority Key Skills are bolded.)**
Students will know… • Objects have different attributes (e.g. size, color, shape). • Vocabulary: tall/short long/short big/little more/less light/heavy guess (estimate) same size different size middle-sized longest/shortest biggest/littlest lightest/heaviest holds more/holds less/holds the same more time/less time	*Students will be able to….* • Count objects in each category. • Sort objects by various attributes. • Sort each of the sets by the amount in each set. • Describe several measurable attributes of common objects. • **Compare two objects using measurable attributes.** • Guess (estimate) the amount before measuring. • **Use nonstandard units to measure length/height.** • Use a balance scale to measure weight. • Order objects according to length. • Order objects according to weight. • Find differences in lengths using nonstandard units. • Compare weights using nonstandard units. • Compare containers according to capacity. • Compare events according to the duration of time.

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.

K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
K.MD.2: Directly compare two objects with a measurable attribute in common, to see which object has "more" of/ "less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*
K.MD.3: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

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 7 - Numbers to 100
Unit Title: Numbers to 100 Course: Kindergarten Math Brief Summary of Unit: In this unit, students will count to 100 by ones, twos, fives, and tens. Students will work with numbers 0-100 in a variety of ways: hundreds chart, comparing quantities, writing numbers, number sequence, count on, tallies. Textbook Correlation: *Math in Focus* Chapter 8 Time Frame: approximately 2-3 weeks
Calendar Focus: See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather This Unit: Introduce coins: name and value of each- penny, nickel, dime, quarter (Chapter 20) Count by 5's and 10's

Transfer
Students will be able to independently use their learning to… understand how numbers are used in the real-world.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • Why count? • Where can I use counting? • What comes next? • What number comes before? • What is the best way to count this group of objects? Why? • Where could I find one hundred of the same kind of an object? • How can you determine how many? • What comes next? • What comes after? • Why/when do I not start counting at 1 sometimes? • How many more? • What strategy did you use?	*Students will understand that…* • Numbers have names. • Each number is unique, has its own digits. • There is an order to numbers. • You can start counting from any number. • Number lines, hundreds chart, and other tools can be used to help me count. • Patterns can help me count. • Using tallies while counting helps to keep track of what has been counted. • After counting to 9 (or 19, 29, 39, etc.) the counting pattern changes. • Counting by 2's, 5's, or 10's is an efficient way to count a group of objects. • Numbers 11-19 are made up 10 ones and a set amount of additional ones. • Two digit numbers are made of groups of 10 and additional ones.

Acquisition	Acquisition
Key Knowledge	Key Skills **(Priority Key Skills are bolded.)**
Students will know… • When counting, they must say each number in consecutive order. • When counting by 10's all the numbers end in zero. (Possible extension: start at 12, count by 10's… 12, 22, 32, etc.) • Vocabulary: twos fives tally twenty thirty forty fifty sixty seventy eighty ninety one hundred	*Students will be able to….* • **Start at 1 and count to 100, independently.** • **Start at 10 and count by 10's to 100, independently.** • Count backwards. • Count by 2's. • Use counting by 2's sequence to count up to 20 objects. • Count by 5's up to 20. • Keeps count of numbers using tallies. • **Count from any given number to 100.** • Sequence numbers from 1 to 100.

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.

K.CC.1: Count to 100 by ones and by tens.

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- Addition
Unit Title: Addition Course: Kindergarten Math Brief Summary of Unit: In this unit, students will create number bonds to 10, represent and complete addition equations to 10, and be introduced to model drawing (modeled by the teacher). Students will use multiple strategies to solve addition problems and be able to defend their answer. Textbook Correlation: *Math in Focus* Chapters 12, 14 and 17 Time Frame: approximately 8 weeks
Calendar Focus: See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather This Unit: Review coins Review counting by 2's

Transfer
Students will be able to independently use their learning to… represent and solve real world problems using addition.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • How can I make 10? • What strategy did you use to make 10? • How do I trade (regroup)? • What do I do when I have ten? • What do I do with the extra ones? • How can you determine how many? • What comes next? • What comes after? • Why/when do I not start counting at 1 sometimes? • How many more? • What strategy did you use? • What is the best way to add? Why? • What is the most efficient strategy to use? • When would you use adding in the real-world? • How is the problem represented? • What strategy did you use to solve this problem?	*Students will understand that…* • Numbers in the ones place can only go up to nine. • A group of ten ones can be traded for (regrouped) one group of ten. • Number lines, hundreds chart, and other tools can be used to help me add. • Being fluent, means doing something efficiently, accurately, and with understanding. • You can make ten by adding on to a given number within 10. • There are multiple ways to represent a number. • Addition means putting parts together to make a whole. • Two parts make a whole. • Addition is used in the real-world to solve problems. • Reading the problem (and understanding its context) helps to determine how to solve the problem.

Acquisition	Acquisition
Key Knowledge	Key Skills **(Priority Key Skills are bolded.)**
Students will know… • part-part-whole relationships (numbers bonds to 10) • number bond • part-part-whole • equation • addition • +/- • add/addition • same as/equals • trade (regroup) • "tens" • "ones" • fluency • model drawing (modeled by the teacher)	*Students will be able to….* • Count forward from ten. • Start at any number between 2 and 99, and count forward to 100. • Start at any multiple of 10 and count by 10's up to 100. • Count backwards from any given number 1-100. • **Use a number line, hundreds chart, and other tools to count.** • Given a series of three numbers with one missing, fill in the missing number. <u>*From Unit 4 – Numbers to 20*</u> • *Represent a number 11-19 through drawings or equations with a base of ten. (one part being 10).* • *Look at a group of objects (between 10 and 20) and put 10 in a group and identify the remaining ones.* • *Decompose a number (between 10 and 20) into a group of ten and ones.* • *Represent a number 11 - 19 using a number bond with 10.* • *Use a tens frame and place value disks to regroup when there are 10 or more ones.* • *Use a pictorial representation of a tens frame and place value disks to regroup when there are 10 or more ones.* • Represent addition using number bonds. (Can use objects or pictures to represent numbers) • When given a number 1-9, find the number that makes 10 when added to the given number. • Use a strategy to determine the missing component of the equation. (e.g., objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations) • Solve addition problems within 5 efficiently and accurately. • **Add within 10.** • Represent an answer with a drawing or equation. • Verbalize or demonstrate the strategy they used. • Use objects or drawings to represent the given equation. • Represent addition using a variety of strategies. • Determine what the word problem is asking. • Solve addition word problems within 10. (Can use objects or pictures to represent numbers.)

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.

K.OA.5: Fluently add and subtract within 5
K.OA.4: For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
K.OA.2: Solve addition and subtraction word problems, and add and subtract within 10, e.g. , by using objects or drawing to represent the problem.
K.OA.1: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. , claps), acting out situations, verbal explanations, expressions, or equations
K.NBT.1: Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g. 18=10+8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
K.CC.2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

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 9 - Subtraction and Problem Solving
Unit Title: Subtraction and Problem Solving Course: Kindergarten Math Brief Summary of Unit: Students will create number bonds from 10, represent and complete subtraction equations from 10, and be introduced to model drawing (modeled by the teacher). Students will use multiple strategies to solve subtraction problems and be able to defend their answer. Students will determine when to use addition or subtraction when solving the problem. Textbook Correlation: *Math in Focus* Chapter 18 Time Frame: approximately 2-3 weeks
Calendar Focus: See Elementary Math K-5 moodle page. All year: Days of the week Months of the year Numbers of days in school Oral Counting Graphing weather This Unit: Review number bonds Compose/Decompose numbers (ex: 18th day of the month… 18 is made up of a ten and eight ones) Review counting by 1's, 5's, and 10's

Transfer
Students will be able to independently use their learning to… represent and solve real world problems using subtraction.

Meaning	Meaning
Essential Questions	Understandings
Students will consider… • How can I make a given number? (How can I make 9, 8, 7)? • How many more? • How can I make 10? • What strategy did you use to make 10? • How is the problem represented? • What is the most efficient strategy to use? • How can I solve this problem? • How do I know whether to add or subtract? • How can you determine how many? • Can you find another pair for that number? • What strategy did you use to solve this problem? • What is the best way to add? Why? • What is the best way to subtract? Why? • What do I do when I have ten? • What do I do with the extra ones? • How do I trade?	*Students will understand that…* • There are multiple ways to represent a number. • You can make ten by adding on to a given number within 10. • Two parts can make a whole. • Two smaller parts can make up a whole. • Numbers in the ones place can only go up to nine. • A group of ten ones can be traded for/regrouped for one group of ten. • Two digit numbers are made of groups of 10 and additional ones. In kindergarten, the focus is numbers 0-20. • Numbers 11-19 are made up of 10 ones and a set amount of additional ones. • A set number of objects can be arranged in multiple ways. • A number can be decomposed into two or more parts. • Subtraction means breaking a whole into parts. • Reading the problem (and understanding its context) helps to determine how to solve the problem. • Being fluent, means doing something efficiently, accurately, and with understanding. • Addition and subtraction are used in the real-world to solve problems. • Addition and subtraction are related- each can be used to describe a part-part-whole relationship.

Acquisition	Acquisition
Key Knowledge	Key Skills **(Priority Key Skills are bolded.)**
Students will know… • Part-Part-Whole relationships (number bonds to 10) • Whether to add or subtract. • number bond • add/addition + • take away/subtraction - • same as/equals • equation • model drawing (Modeled by the teacher.) • trade (regroup) • "tens" • "ones"	*Students will be able to….* • Count forward from ten. • When given a number 1-9, find the number that makes 10 when added to the given number. • Look at a group of objects (between 10 and 20) and put 10 in a group and identify the remaining ones. • Use a pictorial representation of a tens frame and place value disks to regroup when there are more ones. • Represent a number 11-19 through drawings or equations with a base of ten. (one part being 10) • Decompose a number (between 10 and 20) into a group of ten and ones. • Use a tens frame and place value disks to regroup when there are 10 or more ones. • Determine what the word problem is asking. • Represent a quantity within 10 with two parts using number bonds, number sentences, objects, drawings, etc. • Use a strategy to determine the missing component of the equation (e.g., objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations). • Represent a quantity within 10 with two parts in more than one way. (e.g., 5=2+3 and 5=4+1) • Use objects or drawings to represent the given equation. • Represent addition and subtraction using a variety of strategies. • Verbalize or demonstrate the strategy they used. • Solve addition and subtraction problems within 5 efficiently and accurately. • Represent an answer with a drawing or equation. • Solve addition and subtraction problems within 5 mentally. • **Add and subtract within 10.**

Standards Alignment

MISSOURI LEARNING STANDARDS

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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.

K.OA.5: Fluently add and subtract within 5.
K.OA.4: For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
K.OA.3: Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings and record each decomposition by a drawing or equation.
K.OA.2: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using object or drawing to represent the problem.
K.OA.1: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
K.NBT.1: Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18=10+8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Show Me-Standards

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

Mathematics: 1, 5