1st Grade Math Course Outline

Course Name:	1st Grade Math		
Credits:	N/A		
Prerequisites:	N/A		
Description:	In Grade 1, instructional time focuses on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.		
Academic Standards:	Wisconsin State Standards in Mathematics (2011)		
Units:	Unit Length:	Unit Standards:	Unit Outcomes:
Patterns and Number Patterns to 10	16 days	CC.1.OA.1; CC.1.OA.3; CC.1.OA.5; CC.1.OA. 6; CC.1.OA.8	Develop a basic understanding of numbers 1-10, number patterns, and number partners.
Addition and Subtraction Strategies	24 days	CC.1.OA.1; CC.1.OA.6; CC.1.OA.7; CC.1.OA. 3; CC.1.OA.5; CC.1.OA.8	Developing understanding of addition, subtraction, and strategies for addition and subtraction within 20.
Unknown Numbers in Addition and Subtraction	19 days	CC.1.OA.1; CC.1.OA.5; CC.1.OA.6; CC.1.OA. 8; CC.1.OA.4; CC.1.OA.7	Using number patterns and partners to find unknown numbers.
Place Value Concepts	24 days	CC.1.OA.1; CC.1.OA.3; CC.1.OA.5; CC.1.OA. 6; CC.1.OA.8; CC.1.NBT.1; CC.1.NBT.1; CC. 1.NBT.2; CC.1.NBT.2a; CC.1.NBT.2b; CC.1. NBT.2c, CC.1.NBT.3; CC.1.NBT.5; CC.1.NBT.	Developing a basic understanding of place value concepts and utilizing place value when adding.
Place Value Situations	19 days	CC.1.OA.1; CC.1.OA.2; CC.1.OA.3; CC.1.OA. 4; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8; CC.1. NBT.1; CC.1.NBT.2; CC.1.NBT.2c; CC.1.NBT. 4; CC.1.NBT.5	Developing a further understanding of place value and discovering more strategies for addition and subtraction using place value concepts.
Comparisons and Data	15 days	CC.1.OA.1; CC.1.OA.2; CC.1.MD.4;	Students will be able to organize and compare data effectively.
Geometry, Measurement, and Equal Shares	23 days	CC.1.MD.1, CC.1.MD.2, CC.1.MD.3, CC.1.G. 1, CC.1.G.2, CC.1.G.3	Students will learn the attributes of specific shapes. Students will begin to discover concepts of length and time measurements.
Two-Digit Addition	10 days	CC.1.NBT.3, CC.1.NBT.4, CC.1.NBT.6	Students will apply prior knowledge along with modeling skills to perform two-digit addition.

Unit Name: Partners and Number Patterns Through 10	Length: 16 days
Standards CC.1.OA.1; CC.1.OA.3; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8	Outcomes: Develop a basic understanding of numbers 1-10, number patterns, and number partners.
Essential Questions: How can we use number partners and number patterns to help us in addition and subtraction?	Learning Targets: The students will focus on the 1- more and 1- less pattern with counting numbers, finding partners, and with addition and subtraction.
Topic 1: Numbers Through 10	Length: 3 days
Standard(s): CC.1.OA.1; CC.1.OA.3; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8	Academic Vocabulary: more, less, 5-group, plus, plus sign, equal sign, equation
Lesson Frame: Discuss Numbers 1-10	I can represent numbers 1-10.
Lesson Frame: Visualize Numbers as a 5-group and ones	I can visualize and represent numbers 1-10.
Performance Tasks: Quick Quiz 1	Notes:
Topic 2: Patterns with Partners Through 10	Length: 13 days
Standard(s): CC.1.OA.1; CC.1.OA.3; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8	Academic Vocabulary: partner, total, circle drawing, break-apart, Math Mountain, add, subtract, pattern, double switch the partners, difference
Lesson Frame: Partners of 2 Through 5	I can add and subtract within 5.
Lesson Frame: Partners of 6	I can add and subtract within 6.
Lesson Frame: Partners of 7	I can add and subtract within 7.
Lesson Frame: Partners of 8	I can add and subtract within 8.
Lesson Frame: Partners of 9	I can add and subtract within 9.
Lesson Frame: Partners of 10	I can add and subtract within 10.
Lesson Frame: Focus on Mathematical Practices	I can use the Common Core Content Standards and Practices in a variety of real world problem solving situations.
Performance Tasks: Plant Flowers Quick Quiz 2, Unit 1 Review and Test	Notes: Rubric assessment for Report Card:OA: Add within 10, demonstrating fluency

3

Unit Name: Addition and Subtraction Strategies	Length: 24 Days
Standards: CC.1.OA.1; CC.1.OA.6; CC.1.OA.7; CC.1.OA.3; CC.1.OA.5; CC.1.OA.8	Outcomes: Developing understanding of addition, subtraction, and strategies for addition and subtraction within 20.
Essential Questions: What different types of strategies can we use for addition and subtraction? How do we determine if number sentences are true or false?	Learning Targets: The students will recognize addition and subtraction problem types and write equations to represent addition and subtraction situations. The students will discuss different types of equations, decide if they are true or false, and develop strategies for adding and subtracting within 10.
Topic 1: Represent Addition Situations	Length: 5 days
·	<u> </u>
Standard(s): CC.1.OA.1, CC.1.OA.6, CC.1.OA.7	Academic Vocabulary: add, partners, plus sign, total, circle drawing, equal, equal sign (=), not equal sign, equation
Lesson Frame: Represent Addition; Addition with Circle Drawings	I can use addition to solve story problems and visualize equality.
Lesson Frame: Addition Equations	I can use = to write addition equations and determine if an equation is true.
Lesson Frame: Addition Equations and Stories	I can represent and solve addition story problems and determine if addition equations are true.
Performance Tasks: Quick Quiz 1, Fluency Check 1	Notes:
Topic 2: Solve Addition Equations	Length: 7 days
Standard(s): CC.1.OA.3, CC.1.OA.5, CC.1.OA.6, CC.1.OA.8	Academic Vocabulary: count all, count on, unknown total, count on,
Lesson Frame: Explore Solution Methods; Adding Strategies: Counting On	I can find the total in addition equations.
Lesson Frame: Count On from the Greater Number	I can count on from the greater number to add.
Lesson Frame: Addition Game: Unknown Totals; Practice Counting On	I can solve addition equations.
Performance Tasks: Quick Quiz 2, Fluency Check 2	Notes:
Topic 3: Solve Subtraction Equations	Length: 5 days
Standard(s): CC.1.OA.1, CC.1.OA.6, CC.1.OA.7, CC.1.OA.8	Academic Vocabulary: minus, minus sign (-), subtract, proof drawing, subtraction story problem, vertical forms
Lesson Frame: Represent Subtraction	I can solve subtraction problems and equations.
Lesson Frame: Subtraction with Drawings and Equations	I can represent and solve subtraction problems, and write subtraction equations.
Lesson Frame: Practice with Subtraction	I can solve subtraction problems, and write and solve subtraction equations.
Lesson Frame: Generate Subtraction Problems	I can write and solve subtraction equations and problems.
Performance Tasks: Quick Quiz 3, Fluency Check 3	Notes:

Topic 4: Equation Exploration	Length: 7 days
Standard(s):	Academic Vocabulary: vertical forms
Lesson Frame: Relate Addition and Subtraction	I can relate addition and subtraction and solve vertical forms.
Lesson Frame: Mixed Practice with Equations	I can write and solve addition and subtraction equations and vertical forms.
Lesson Frame: Focus on Mathematical Practices	I can use the Common Core Content Standards and Practices in a variety of real world problem solving situations.
Performance Tasks: How Many? Quick Quiz 4, Fluency Check 4, Unit Review and Test	Notes: Rubric assessment Subtract within 10.

Unit Name: Unknown Numbers in Addition and Subtraction	Length: 19 days
Standards:	Outcomes:
CC.1.OA.1; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8; CC.1.OA.4; CC.1.OA.7	Using number patterns and partners to find unknown numbers.
Essential Questions: How can we use number patterns and number partners to help us discover unknown numbers?	Learning Targets: The students will focus on unknown partners represented as both addition and subtraction situations; the students will adapt strategies for finding an unknown total to finding an unknown partner.
Topic 1: Counting On with Addition Situations	Length: 7 days
Standard(s):	Academic Vocabulary:
CC.1.OA.1, CC.1.OA.5, CC.1.OA.6, CC.1.OA.8	unknown partner, story problem, label
Lesson Frame: Explore Unknowns	I can relate partners and totals and find an unknown partner.
Lesson Frame: Problems with Unknown Partners	I can solve story problems with unknown partners.
Lesson Frame: Solve equations with Unknown Partners; Addition Game: Unknown Partners	I can solve equations with unknown partners.
Lesson Frame: Practice with Unknown Partners	I can identify and find unknown partners.
Performance Tasks: Quick Quiz 1, Fluency Check 5	Notes:
Topic 2: Counting On with Subtraction Situations	Length: 4 days
Standard(s): CC.1.OA.1, CC.1.OA.4, CC.1.OA.5, CC.1.OA.6, CC.1.OA.8	Academic Vocabulary: difference, subtraction story problem
Lesson Frame: Subtraction Strategies	I can solve subtraction story problems.
Lesson Frame: Subtraction Stories and Games	I can solve subtraction story problems and equations.
Lesson Frame: Practice with Subtraction Stories	I can create and solve subtraction stories.
Performance Tasks: Quick Quiz 2, Fluency Check 6.	Notes:
Topic 3: Mixed Story Problems	Length: 8 days
Standard(s): CC.1.OA.1, CC.1.OA.4, CC.1.OA.5, CC.1.OA.6, CC.1.OA.7, CC.1.OA.18	Academic Vocabulary: No New Vocabulary
Lesson Frame: Relate Addition and Subtraction Situations	I can model and relate addition and subtraction situations.
Lesson Frame: Solve Mixed Problems	I can solve story problems with unknown partners and totals.
Lesson Frame: Practice with Mixed Problems	I can solve for unknown partners or totals in story problems and equations.
Lesson Frame: Focus on Mathematical Practices	I can use the Common Core Content Standards and Practices in a variety of real world problem solving situations.

Performance Tasks:	Notes:
Hide and Seek, Quick Quiz 3, Fluency Check 7, Unit 3 Review and Test	Rubric Assessment: OA: add and subtract within 10, demonstrating fluency

1st Grade Math Place Value Concepts

Unit Name: Place Value Concepts	Length: 24 days
Standards: CC.1.OA.1; CC.1.OA.3; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8; CC.1.NBT.1; CC.1.NBT.1; CC.1.NBT.2; CC.1.NBT.2a; CC.1.NBT.2b; CC.1.NBT.2c, CC.1.NBT.3; CC.1.NBT.5; CC.1.NBT.4	Outcomes: Developing a basic understanding of place value concepts and utilizing place value when adding.
Essential Questions: What is place value and how can we use it to help us add?	Learning Targets: The students will explore tens and ones groupings using physical groupings and math drawings. The students will extend place value concepts to add with 1 and 2 digit numbers.
Topic 1: Tens and Teens	Length: 7 days
Standard(s): CC.1.OA.1; CC.1.OA.3; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8; CC.1.NBT.1; CC.1.NBT.1; CC.1.NBT.2; CC.1.NBT.2a; CC.1. NBT.2b; CC.1.NBT.2c, CC.1.NBT.3; CC.1.NBT.5	Academic Vocabulary: decade number, tens, ones, digit, teen number, 10-stick, compare, is equal to (=), is greater than (>), is less than (<), teen total, make a ten, Make a Ten strategy, doubles, doubles plus 1, doubles plus 2, doubles minus 1, doubles minus 2
Lesson Frame: Introduction to Tens Groupings	I can recognize 10 as a group of ten ones and count decade numbers as groups of ten.
Lesson Frame: Explore Teen Numbers	I can recognize that teen numbers are composed of a ten and extra ones.
Lesson Frame: Represent and Compare Teen Numbers	I can model and compare teen numbers.
Lesson Frame: Visualize Teen Addition	I can represent teen totals as a group of ten and extra ones.
Lesson Frame: Teen Addition Strategies	I can add and solve story problems to find teen totals.
Lesson Frame: Investigate Doubles	I can add with doubles.
Performance Tasks: Quick Quiz 1, Fluency Check 8	Notes:
T : 0 Pl - V 1 400	
Topic 2: Place Value to 100	Length: 8 days
Standard(s): CC.1.OA.5; CC.1.OA.6; CC.1.OA.8; CC.1.NBT.1; CC.1.NBT. 2; CC.1.NBT.2a; CC.1.NBT.2b; CC.1.NBT.2c; CC.1.NBT.3; CC.1.NBT.4	Academic Vocabulary: number word, 10-group, tens digit, ones digit, compare, is greater than (>), is less than (<), is equal to (=)
Lesson Frame: Understand Tens and Ones	I can represent 2-digit numbers as tens and ones.

1st Grade Math Place Value Concepts

Lesson Frame: Integrate Tens and Ones	I can identify the tens and ones in 2-digit numbers, and read and write numerals and number words.
Lesson Frame: Practice Grouping Ones into Tens	I can add a 1-digit number to a 2-digit number.
Lesson Frame: Add with Groups of Ten	I can use tens and ones to add.
Lesson Frame: Practice with Tens and Ones	I can identify tens and ones in 2-digit numbers and add with tens and ones.
Lesson Frame: Use Place Value to Compare Numbers	I can compare two 2-digit numbers.
Performance Tasks: Quick Quiz 2, Fluency Check 9	Notes: Rubric assessment: NBT: Understand that the two digits of a two-digit number represent amounts of tens and ones
Topic 3: Addition Strategies	Length: 9 days
Standard(s): CC.1.OA.5; CC.1.NBT.1; CC.1.NBT.2; CC.1.NBT.2a; CC.1. NBT.2c; CC.1.NBT.3; CC.1.NBT.4	Academic Vocabulary: No new vocabulary
Lesson Frame: Add Tens or Ones	I can distinguish between adding ones and adding tens, and add 1 or 10 other numbers.
Lesson Frame: Mixed Addition with Tens and Ones	I can add ones or tens to decade numbers.
Lesson Frame: Counting On Strategy: 2-Digit Numbers	I can add a 1-digit number to a 2-digit number.
Lesson Frame: Practice with 2-Digit Numbers	I can count on into the next decade and compare 2-digit numbers.
Lesson Frame: 2-Digit Addition Games	I can add with tens and ones.
Lesson Frame: Focus on Mathematical: Practices	I can use the Common Core Content Standards and Practices in a variety of real world problem solving situations.
Performance Tasks: Snack Time, Quick Quiz 3, Fluency Check 10, Unit 4 Review and Test	Notes: Rubric Assessment: NBT: Add within 100, including a two-digit number and a one-digit number

1st Grade Math Place Value Situations

Unit Name: Place Value Situations	Length: 19 days
Standard(s): CC.1.OA.1; CC.1.OA.2; CC.1.OA.3; CC.1.OA.4; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8; CC.1.NBT.1; CC.1.NBT.2; CC.1. NBT.2c; CC.1.NBT.4; CC.1.NBT.5	Outcomes: Developing a further understanding of place value and discovering more strategies for addition and subtraction using place value concepts.
Essential Questions: What other place value strategies can we use to help us with addition and subtraction?	Learning Targets: The students will learn more strategies for unknown partners in addition and subtraction situations. The students will access prior knowledge from previous unit to work with greater numbers.
Torio 4: Toon Colution Mothe de	Law of the 40 days
Topic 1: Teen Solution Methods	Length: 10 days
Standard(s): CC.1.OA.1; CC.1.OA.2; CC.1.OA.3; CC.1.OA.4; CC.1.OA.5; CC.1.OA.6; CC.1.OA.8	Academic Vocabulary: unknown partner, addend
Lesson Frame: Unknown Partners with Teen Totals	I can solve teen addition problems with unknown partners.
Lesson Frame: Subtraction with Teen Numbers	I can solve teen subtraction.
Lesson Frame: Mixed Practice with Teen Problems	I can solve and write addition and subtraction problems to find teen totals and unknown partners.
Lesson Frame: Small Group Practice with Teen Problems	I can solve teen addition and subtraction problems with various unknowns.
Lesson Frame: Teen Problems with Various Unknowns	I can create and solve story problems to find unknown partners and teen totals.
Lesson Frame: Problems with Three Addends	I can solve problems with three addends.
Performance Tasks: Quick Quiz 1, Fluency Check 11	Notes: Assessment Rubric: Operations and Algebraic Thinking: Apply properties of operations as strategies to add and subtract
Topic 2: Find Patterns and Relationships	Length: 9 days
Standard(s): CC.1.OA.1; CC.1.OA.2; CC.1.OA.6; CC.1.NBT.1; CC.1.NBT. 2; CC.1.NBT.2c; CC.1.NBT.4; CC.1.NBT.5	Academic Vocabulary: 10-group, hundred, column, row, grid
Lesson Frame: Count with Groups of 10	I can count with groups of 10.
Lesson Frame: Numbers Through 120	I can count and write numbers to 120 and find 10 more and 10 less than a given number.
Lesson Frame: Add and Subtract Tens	I can add tens to 2-digit numbers and subtract tens from decade numbers.
Lesson Frame: Add and Subtract Multiples of 10	I can add and subtract decade numbers.
	

1st Grade Math Place Value Situations

Lesson Frame: Focus on Mathematical Practices	I can use the Common Core Content Standards and Practices in a variety of real world problem solving situations.
	Notes: Rubric Assessment: OA: Add and subtract within 20 NBT: Add a two-digit number and multiple of 10 (i.e. 38 + 10)

1st Grade Math Comparisons and Data

Unit Name: Comparisons and Data	Length: 15 days
Standards: CC.1.OA.1; CC.1.OA.2; CC.1.MD.4;	Outcomes: Students will be able to organize and compare data effectively.
Essential Questions: How can we collect data and use it to make comparisons in math?	Learning Targets: The students will organize, represent, and interpret data. The students will build on what they know about comparing numbers to develop comparison statements for a set of data, and solve comparison story problems.
Topic 1: Represent and Compare Data	Length: 7 days
Standard(s): CC.1.OA.1; CC.1.OA.2; CC.1.MD.4	Academic Vocabulary: sort, data, compare, more, most, fewer, fewest, category
Lesson Frame: Explore Representing Data	I can organize and represent categorical data.
Lesson Frame: Organize Categorical Data	I can organize, represent, and interpret categorical data.
Lesson Frame: Use Stair Steps to Represent Data	I can organize, represent, and interpret data.
Lesson Frame: Data Sets with Three Categories	I can organize, represent, and interpret data with three categories.
Lesson Frame: Data Collecting	I can collect, organize, represent, and interpret data with three categories.
Performance Tasks: Quick Quiz 1, Fluency Check 13	Notes: Rubric Assessment: Measurement and Data: Organize, Represent, and interpret data with up to three categories
Topic 2: Compare Problem Types	Length: 8 days
Standard(s): CC.1.OA.1; CC.1.OA.2; CC.1.MD.4	Academic Vocabulary: comparison bars
Lesson Frame: Introduce Comparison Bars; Comparison Bars and Comparing Language; Solve Compare Problems	I can solve Compare bars.
Lesson Frame: Focus on Mathematical Practices	I can use the Common Core Content Standards and Practices in a variety of read world problem solving situations.
Performance Tasks: Activity: Sort and Compare Quick Quiz 2, Fluency Check 14, Unit Review and Test	Notes:

Unit Name: Geometry, Measurement, and Equal Shares	Length: 23 days
CC.1.MD.1, CC.1.MD.2, CC.1.MD.3, CC.1.G.1, CC.1.G.2, CC.1.G.3	Outcomes: Students will learn the attributes of specific shapes. Students will begin to discover concepts of length and time measurements.
What is measurement and how can measurements be used to solve problems?	Learning Targets: The students will distinguish between defining and non-defining attributes of shapes, and compose shapes; The students will learn more basic concepts about length measurements (including time).
Tania 4. Tall and White Time	Longethy Coderin
Standard(s):	Length: 6 days Academic Vocabulary: clock, hour, minute, hour hand, minute hand, half-hour
Lesson Frame: Introduction to Time; Time in Our Day	I can tell and write time in hours.
Lesson Frame: Tell and Write Time in Hours	I can show, tell, and write time in hours.
Lesson Frame: Tell and Write Time in Half-Hours	I can tell and write time in half-hours.
Lesson Frame: Practice Telling and Writing Time	I can tell and write in hours and half-hours.
Performance Tasks: Quick Quiz 1, Fluency Check 15	Notes:
Topic 2: Shapes and Equal Shares	Length: 11 days
Standard(s): CC.1.G.1, CC.1.G.2, CC.1.G.3	Academic Vocabulary: rectangle, square, side, corner, square corner, triangle, circle, halves, fourths, quarters, equal shares, half of, fourth of, quarter of, trapezoid, cube, rectangular prism, cone, cylinder, sphere, face, edge, vertex
Lesson Frame: Squares and Other Rectangles	I can distinguish between defining and non-defining attributes of squares and other rectangles.
Lesson Frame: Triangles and Circles	I can distinguish between defining and non-defining attributes of triangles and circles.
Lesson Frame: Equal Shares	I can partition circles and rectangles into two and four equal shares.
Lesson Frame: Compose 2-Dimensional Shapes	I can compose 2-dimensional shapes, and compose new shapes from the composite shape.
Lesson Frame: 3-Dimensional Shapes	I can identify attributes of 3-dimensional shapes and composite rectangular prisms.
Lesson Frame: Compose 3-Dimensional Shapes	I can compose 3-dimensional shapes, and compose new shapes from the composite shape.
	Notes: Rubric assessment: Geometry: Distinguish between defining attributes and build and

Topic 3: Measure and Order by Length	Length: 6 days
Standard(s): CC.1.MD.1, CC.1.MD.2, CC.1.MD.3, CC.1.G.3	Academic Vocabulary: compare, order, longest, shorter, shortest
Lesson Frame: Order by Length	I can compare and order objects by length.
Lesson Frame: Measure with Length Units	I can measure objects with same-size length units.
Lesson Frame: Focus on Mathematical Practices	I can use the Common Core Content Standards and Practices in a variety of real world problem solving situations.
Performance Tasks: Busy Bug's Bedtime, Quick Quiz 3, Fluency Check 17, Unit Review and Test	Notes: Rubric Assessment: Measure the length of an object as a whole number and length units

1st Grade Math

Two-Digit Addition

Unit Name: Two-Digit Addition	Length: 10 days
Standards: CC.1.NBT.3, CC.1.NBT.4, CC.1.NBT.6	Outcomes: Students will apply prior knowledge along with modeling skills to perform two-digit addition.
Essential Questions: How can we use our prior knowledge and modeling skills to help us perform two-digit addition?	Learning Targets: The students will use modeling skills, place value, and addition concepts to add with 2 digit numbers when grouping a ten is and is not required.
Topic 1: Add 2-Digit Addition	Length: 10 days
Standard(s): CC.1.NBT.3, CC.1.NBT.4, CC.1.NBT.6	Academic Vocabulary: group, New Group Below method, New Group Above method, Proof Drawing, Show All Totals method,
Lesson Frame: Explore 2-Digit Addition	I can add 2-digit numbers.
Lesson Frame: Methods of 2-Digit Addition	I can add 2-digit numbers.
Lesson Frame: Addition of Tens and Ones	I can add 2-digit numbers.
Lesson Frame: Discuss Solution Methods	I can add 2-digit numbers.
Lesson Frame: Practice 2-Digit Addition	I can add 2-digit numbers.
Lesson Frame: Focus on Mathematical Practices	I can use Common Core Content Standards and Practices in a variety of real world problem solving situations.
Performance Tasks: Picking Pears, Quick Quiz 1, Fluency Check 18, Unit Review and Test	Notes: Rubric Assessment: OA: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking away from, putting together, taking apart, and comparing with unknowns in all positions.