Oxford Area School District – Math Curriculum Grade 2

### **Mathematical Content: Numbers and Operations**

Essential Questions:						
Anchor: (A) Counting and Cardina	Anchor: (A) Counting and Cardinality					
Concepts Competencies Resources Assessments						
	Intentionally Blank	Math In Focus—Chapter 1	Chapter 1 Test Prep			
Vocabulary:						

### **Essential Questions:**

- How is mathematics used to quantify, compare, represent, and model numbers?
- How can mathematics support effective communication?
- How are relationships represented mathematically?
- What does it mean to estimate or analyze numerical quantities?
- What makes a tool and/or strategy appropriate for a given task?
- How can recognizing repetition or regularity assist in solving problems more efficiently?

## Anchor: (B) Numbers and Operations in Base Ten

Concepts	Competencies	Resources	Assessments
<ol> <li>I can understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones.</li> <li>I can 100 can be thought of as a bundle of ten tens —</li> </ol>	CC.2.1.2.B.1—Use place-value concepts to represent amounts of tens and ones to compare three digit numbers.	<ul> <li>Math in Focus: Teacher's Edition-Chapter 1</li> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> <li>Enrichment Manual</li> </ul>	<ul> <li>Chapter 1 Test Prep</li> <li>Exact Path Benchmark</li> </ul>

<ul> <li>called a "hundred."</li> <li>3. I can the numbers 10 300, 400, 500, 600, 7 800, 900 refer to one three, four, five, six, eight, or nine hundre (and 0 tens and 0 on</li> <li>4. I can compare two three numbers based on me of the hundreds, tens, ones digits, using &gt;, =, symbols to record the of comparisons.</li> </ul>	0, 200, 00, e, two, seven, eds es). ee-digit anings and and < results	<ul> <li>School to Home Connection Manual</li> <li>Achieving Facts Fluency Manual</li> <li>Manipulatives Kit</li> <li>Everyday Counts Calendar Math Kit</li> <li>Transition Guide</li> <li>ThinkCentral Technology Platform</li> <li>SAS website</li> <li>ST Math</li> <li>Exact Path Diagnostics</li> </ul>	
<ol> <li>I can count within 100 count by 5s, 10s, and 1</li> <li>I can read and write nu to 1000 using base-ter numerals, number nar and expanded form.</li> </ol>	D; skip- O0s. Imbers CC.2.1.2.B.2—Use place-value concepts to read, write, and skip count to 1000.	<ul> <li>Math in Focus: Teacher's Edition-Chapter 1</li> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> <li>Enrichment Manual</li> <li>School to Home Connection Manual</li> <li>Achieving Facts Fluency Manual</li> <li>Manipulatives Kit</li> <li>Everyday Counts Calendar Math Kit</li> <li>Transition Guide</li> <li>ThinkCentral Technology</li> </ul>	<ul> <li>Chapter 1 Test Prep</li> <li>Exact Path Benchmark</li> </ul>

			<ul> <li>Platform</li> <li>SAS website</li> <li>ST Math</li> <li>Exact Path Diagnostics</li> </ul>	
1.	I can fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	CC.2.1.2.B.3—Use place-value understanding and properties of operations to add and subtract within 1000.	<ul> <li>Math in Focus: Teacher's Edition—Chapter 2, 3, 4, 10</li> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> </ul>	<ul> <li>Chapter 2 Test Prep</li> <li>Chapter 3 Test Prep</li> <li>Chapter 4 Test Prep</li> <li>Chapter 10 Test Prep</li> <li>Exact Path Benchmark</li> </ul>
2.	I can add up to four two-digit numbers using strategies based on place value and properties of operations		<ul> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> </ul>	
3.	I can add and subtract within 1000, 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.		<ul> <li>Enrichment Manual</li> <li>School to Home Connection Manual</li> <li>Achieving Facts Fluency Manual</li> <li>Manipulatives Kit</li> <li>Everyday Counts Calendar Math Kit</li> <li>Transition Guide</li> </ul>	
4.	I can mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.		<ul> <li>ThinkCentral Technology Platform</li> <li>SAS website</li> <li>ST Math</li> <li>Exact Path Diagnostics</li> </ul>	

**Vocabulary:** add, addend, Additive Identity Property of 0, Associative Property of Addition, base-ten numeral form, base-ten numerals, Commutative Property of Addition, compare, compose, count back, count on, count up, difference, digit, doubles, equal, equal groups, equation, estimate, even number, expanded form, fact family, fewer, greater than, hundred, hundreds, less than, making ten, more, more than, number, number line, number names, numeral, odd number, ones, pattern, place value, regroup, related facts, repeated addition, skip count, standard form, subtract, sum, tens, thousand, thousands, unit, whole number, word form

Essential Questions:						
Anchor: (C) Numbers & Operation	ns—Fractions					
Concepts Competencies Resources Assessments						
	Intentionally Blank	Math In Focus—Chapter 12	Chapter 12 Test Prep			
Vocabulary:						

## Mathematical Content: Algebraic Concepts

## **Essential Questions:**

- How is mathematics used to quantify, compare, represent, and model numbers?
- How can mathematics support effective communication?
- How are relationships represented mathematically?
- How can expressions, equations, and inequalities be used to quantify, solve, model, and/or analyze mathematical situations?
- How can recognizing repetition or regularity assist in solving problems more efficiently?
- How can patterns be used to describe relationships in mathematical situations?

## Anchor: (A) Operations and Algebraic Thinking

Concepts	Competencies	Resources	Assessments
<ol> <li>I can use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions,</li> </ol>	CC.2.2.2.A.1—Represent and solve problems involving addition and subtraction within 1000.	<ul> <li>Math in Focus: Teacher's Edition—Chapter 2, 3, 4, 10</li> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> </ul>	<ul> <li>Chapter 2 Test Prep</li> <li>Chapter 3 Test Prep</li> <li>Chapter 4 Test Prep</li> <li>Chapter 10 Test Prep</li> <li>Exact Path Benchmark</li> </ul>

2.	e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. I can determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.		• • • • • •	Reteach Manual Extra Practice Manual Enrichment Manual School to Home Connection Manual Achieving Facts Fluency Manual Manipulatives Kit Everyday Counts Calendar Math Kit Transition Guide ThinkCentral Technology Platform SAS website ST Math Exact Bath Diagnostics		
1.	I can fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	CC.2.2.2.A.2—Use mental strategies to add and subtract within 1000.	•	Math in Focus: Teacher's Edition—Chapter 2, 3, 4, 10 Math in Focus: Student Book Math in Focus: Student Workbook Assessment Manual Reteach Manual Extra Practice Manual Extra Practice Manual Enrichment Manual School to Home Connection Manual Achieving Facts Fluency Manual Manipulatives Kit Everyday Counts Calendar	•	Chapter 2 Test Prep Chapter 3 Test Prep Chapter 4 Test Prep Chapter 10 Test Prep Exact Path Benchmark

		Math Kit Transition Guide ThinkCentral Technology Platform SAS website ST Math Exact Path Diagnostics			
<ol> <li>I can use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</li> </ol>	CC.2.2.2.A.3—Work with equal groups of objects to gain foundations for multiplication.	<ul> <li>Math in Focus: Teacher's Edition—Chapter 5, 6, 15, 16</li> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> <li>Enrichment Manual</li> <li>School to Home Connection Manual</li> <li>Achieving Facts Fluency Manual</li> <li>Manipulatives Kit</li> <li>Everyday Counts Calendar Math Kit</li> <li>Transition Guide</li> <li>ThinkCentral Technology Platform</li> <li>SAS website</li> <li>ST Math</li> <li>Exact Path Diagnostics</li> </ul>	<ul> <li>Chapter 5 Test Prep</li> <li>Chapter 6 Test Prep</li> <li>Chapter 15 Test Prep</li> <li>Chapter 16 Test Prep</li> <li>Exact Path Benchmark</li> </ul>		
<b>Vocabulary:</b> add, addend, Additive Identity Property of 0, array, Associative Property of Addition, column, Commutative Property of Addition, compare, compose, count back, count on, count up, difference, digit, doubles, equal, equal groups, equal shares, equation, estimate, even					

# Oxford Area School District – Math Curriculum Grade 2

number, expanded form, fact family, fewer, greater than, less than, making ten, more, more than, multiplication, multiply, number, number line, number names, numeral, odd number, pattern, regroup, related facts, repeated addition, row, skip count, standard form, subtract, sum, unit, whole number, word form

### Mathematical Content: Geometry

### **Essential Questions:**

- How can patterns be used to describe relationships in mathematical situations?
- How can recognizing repetition or regularity assist in solving problems more efficiently?
- How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?
- How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?
- How can geometric properties and theorems be used to describe, model, and analyze situations?

## Anchor: (A) Geometry

Concepts	Competencies	Resources	Assessments
<ol> <li>I can recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</li> </ol>	CC.2.3.2.A.1—Analyze and draw two- and three-dimensional shapes having specified attributes.	<ul> <li>Math in Focus: Teacher's Edition—Chapter 18, 19</li> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> <li>Enrichment Manual</li> <li>School to Home Connection Manual</li> <li>Achieving Facts Fluency Manual</li> <li>Manipulatives Kit</li> <li>Everyday Counts Calendar</li> </ul>	<ul> <li>Chapter 18 Test Prep</li> <li>Chapter 19 Test Prep</li> <li>Exact Path Benchmark</li> </ul>

		Math Kit <ul> <li>Transition Guide</li> <li>ThinkCentral Technology</li> <li>Platform</li> <li>SAS website</li> <li>ST Math</li> <li>Exact Path Diagnostics</li> </ul>			
1. I can partition a rectangle into	CC.2.3.2.A.2—Use the	<ul> <li>Math in Focus: Teacher's</li> </ul>	Chapter 12 Test Prep		
rows and columns of same-	understanding of fractions to	Edition—Chapter 12, 18,	<ul> <li>Chapter 18 Test Prep</li> </ul>		
size squares and count to find	partition shapes into halves,	19	<ul> <li>Chapter 19 Test Prep</li> </ul>		
the total number of them.	quarters, and thirds.	Math in Focus: Student	Exact Path Benchmark		
2. I can partition circles and		Book			
four equal shares, describe		Math in Focus: Student			
the shares using the words		Workbook			
halves thirds half of a third		Assessment Manual			
of etc. and describe the		Reteach Manual			
whole as two balves three		Extra Practice Manual			
thirds, four fourths, Recognize		Enrichment Manual			
that equal shares of identical		School to Home     Connection Manual			
wholes need not have the					
same shape.		Achieving Facts Fluency     Manual			
		Manipulatives Kit			
		Everyday Counts Calendar			
		Math Kit			
		Transition Guide			
		<ul> <li>ThinkCentral Technology</li> </ul>			
		Platform			
		SAS website			
		• ST Math			
		Exact Path Diagnostics			
Vocabulary: angle, attribute, category, circle, closed shape, compare, cone, cube, cylinder, edge, equal parts, face, fourth of, fourths, geometric					

solid, half-circle, half of, halves, hexagon, partition, pentagon, quadrilateral, quarter, quarter of, rectangle, rectangular prism, side of a shape,

sort, sphere, square, third of, thirds, 3-dimensional, triangle, 2-dimensional, vertex, vertices, whole

## Mathematical Content: Measurement, Data, and Probability

### **Essential Questions:**

- What does it mean to estimate or analyze numerical quantities?
- When is it appropriate to estimate versus calculate?
- What makes a tool and/or strategy appropriate for a given task?
- Why does "what" we measure influence "how" we measure?
- In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted?
- How precise to measurement and calculation need to be?
- How can data be organized and represented to provide insight into the relationship between quantities?
- How does the type of data influence the choice of display?
- How can probability and data analysis be used to make predictions?

	Anchor: (A) Measurement and Data					
(	Concepts	Competencies	Resources	Assessments		
<ol> <li>I can mean object by appropria rulers, ya sticks, an</li> </ol>	asure the length of an selecting and using ate tools such as rdsticks, meter d measuring tapes.	CC.2.4.2.A.1—Measure and estimate lengths in standard units using appropriate tools.	<ul> <li>Math in Focus: Teacher's Edition—Chapter 7, 8, 9, 13</li> <li>Math in Focus: Student Book</li> </ul>	<ul> <li>Chapter 7 Test Prep</li> <li>Chapter 8 Test Prep</li> <li>Chapter 9 Test Prep</li> <li>Chapter 13 Test Prep</li> <li>Exact Path Benchmark</li> </ul>		
<ol> <li>I can mea object tw units of d the two r describe measurer size of th</li> <li>I can estin units of in</li> </ol>	asure the length of an rice, using length lifferent lengths for neasurements; how the two ments relate to the e unit chosen. mate lengths using nches, feet,		<ul> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> <li>Enrichment Manual</li> <li>School to Home Connection Manual</li> </ul>			

Auchan (A) Massaure and and Date

4.	centimeters, and meters. I can measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. I can represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,, and represent whole-number sums and differences within 100 on a number line diagram.		• • •	Manual Manipulatives Kit Everyday Counts Calendar Math Kit Transition Guide ThinkCentral Technology Platform SAS website ST Math Exact Path Diagnostics		
1.	I can tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	CC.2.4.2.A.2—Tell and write time to the nearest five minutes using both analog and digital clocks.	•	Math in Focus: Teacher's Edition—Chapter 14 Math in Focus: Student Book Math in Focus: Student Workbook Assessment Manual Reteach Manual Extra Practice Manual Extra Practice Manual Enrichment Manual School to Home Connection Manual Achieving Facts Fluency Manual Manipulatives Kit Everyday Counts Calendar	•	Chapter 14 Test Prep Exact Path Benchmark

			Math Kit <ul> <li>Transition Guide</li> <li>ThinkCentral Technology</li> <li>Platform</li> <li>SAS website</li> <li>ST Math</li> <li>Exact Path Diagnostics</li> </ul>		
1.	I can solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.	CC.2.4.2.A.3—Solve problems and make change using coins and paper currency with appropriate symbols.	<ul> <li>Math in Focus: Teacher's Edition—Chapter 11</li> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> <li>Enrichment Manual</li> <li>School to Home Connection Manual</li> <li>Achieving Facts Fluency Manual</li> <li>Manipulatives Kit</li> <li>Everyday Counts Calendar Math Kit</li> <li>Transition Guide</li> <li>ThinkCentral Technology Platform</li> <li>SAS website</li> <li>ST Math</li> <li>Exact Path Diagnostics</li> </ul>	•	Chapter 11 Test Prep Exact Path Benchmark
1. 1	I can generate measurement	CC.2.4.2.A.4—Represent and	Math in Focus: Teacher's     Edition Chapter 17	•	Chapter 17 Test Prep
	uata by measuring lengths of	interpret data using line plots,	Edition—Chapter 17	•	Exact Path Benchmark

2.	several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole- number units. I can draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put- together, take-apart, and compare problems using information presented in a bar graph.	picture graphs, and bar graphs.	<ul> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> <li>Extra Practice Manual</li> <li>Enrichment Manual</li> <li>School to Home Connection Manual</li> <li>School to Home Connection Manual</li> <li>Achieving Facts Fluency Manual</li> <li>Manipulatives Kit</li> <li>Everyday Counts Calendar Math Kit</li> <li>Transition Guide</li> <li>ThinkCentral Technology Platform</li> <li>SAS website</li> <li>ST Math</li> </ul>	
			<ul> <li>ST Math</li> <li>Exact Path Diagnostics</li> </ul>	
1.	I can use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	CC.2.4.2.A.6—Extend the concepts of addition and subtraction to problems involving length.	<ul> <li>Exact Path Diagnostics</li> <li>Math in Focus: Teacher's Edition—Chapter 7, 13</li> <li>Math in Focus: Student Book</li> <li>Math in Focus: Student Workbook</li> <li>Assessment Manual</li> <li>Reteach Manual</li> <li>Extra Practice Manual</li> <li>Enrichment Manual</li> <li>School to Home</li> </ul>	est Prep Test Prep Benchmark

	Connection Manual			
	Achieving Facts Fluency			
	Manual			
	Manipulatives Kit			
	Everyday Counts Calendar			
	Math Kit			
	Transition Guide			
	ThinkCentral Technology			
	Platform			
	SAS website			
	ST Math			
	Exact Path Diagnostics			
Vocabulary: a.m., analog clock, bar graph, bar model, Celsius, cent, centimeter, data, decimal point, digital clock, dime, dollar, Fahrenheit, foot,				

half hour, half past, horizontal bar graph, hour, hour hand, inch, length, line, line plot, measuring tape, meter, meter stick, metric system, midnight, minute, minute hand, money, nickel, noon, p.m., penny, picture graph, quarter hour, quarter of, quarter past, ruler, survey, tally chart, tally mark, temperature, time, vertical bar graph, yardstick