Course Resources:

Math Outcomes.docx

Unit	State Standards	Outcomes	Essential Questions	Essential Skills	Assessments	Faith Integration
Entire Year for Grade 3						
Unit 1 Multiplication and Division with 0-5, 9 and 10 *(updated 6/6/19)*	**3.OA.A.1(A)** Interpret products of whole numbers, e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 x 7. **3.OA.A.2(A)** Interpret whole-number quotients of whole numbers, e.g., interpret 56 / 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as 56 / 8. **3.OA.D.9(A)** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends. **3.MD.C.5(A)** Recognize area as an attribute of plane figures and understand concepts of area measurement. •a. A square with side length 1 unit, called a unit square, is said to have one square unit of area, and can be used to measure area. •b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. **3.MD.C.6(A)** Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). **3.MD.C.7(A)** Relate area to the operations of multiplication and addition. •a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. •b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. •c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a x b and a x c. Use area models to represent the distributive property in mathematical reasoning. •d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.		Can I recall basic multiplications and divisions with 0, 1, 2, 3, 4, 5, 9, and 10? Can I identify and use patterns, properties, rules and area to multiply and divide? Can I write and solve a multiplication equation with an unknown to solve a division? Can I use multiplication and division to solve real world word problems involving equal groups and arrays?	1. Identify and use patterns to multiply with 5. 2. Use multiplication and drawings to represent equal groups situation. 3. Use multiplication and drawings to represent array situations and the Commutative Property. 4. Relate division to multiplication with an unknown factor. 5. Identify patterns in 2s count-bys and multipllications and related multiplication and division. 6. Build fluency with 2s and 5s muliplications and divisions. 7. Explore patterns in 10s count-bys, multiplications, and divisions and represent and solve problems involving multiplication and division with 10 8. Identify patterens in 9s multioplications and divisions and learn a strategy for quickly multiplying and dividing with 9s. 9. Build fluency with 2s, 5s, 9s, and 10s multiplications and divisions. 10. Look for patterns in and practices 3s count-bys, multipications, and divisions, and learn a new strategy for finding products for multipliers greater than 5. 11. Use the area model for multiplications. 12. Look for patterns in 4s multiplications and count-bys and learn a strategy for finding 4s count-bys. and solve problems invlolving 4s. 13. Develop multiplications and division strategies and use them to solve problems. 14. Build fluency with 2s, 3s, 4s, 5s, 9s, and 10s mulitiplications and divisions. 15. Use multiplication properties and division rules as strategies to multiply and divide with 1 and 0	Homework & Remembering Unit 1 test Unit 1 quizzes Exit Tickets	Bible stories will be integrated into the story problems. We will talk about how numbers are used in the Bible.

				16. Identify, solve, and create multiplication and division word problems. 17. Practice with 2s, 3s, 4s, 5s, 9s, and 10s multiplications and divisions. 18. Practice muliplications and divisions and solve word problems for 0s, 1s, 2s, 3s, 4s, 5s, 9s, and 10s. 19. Use the Common Core Content Standards and Practices in a variety of real world problem solving situations.		

Unit 2
Multiplication and Division wih 6s, 7s, 8s, and Multiply with Multiples of 10
 	
(updated 6/6/19)
	3.OA.A.1(A)
	   Interpret products of whole numbers, e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 x 7.
	3.OA.A.2(A)
	   Interpret whole-number quotients of whole numbers, e.g., interpret 56 / 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as 56 / 8.
	3.OA.A.3(A)
	   Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
	3.OA.A.4(A)
	   Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 x ? = 48, 5 = [] / 3, 6 x 6 = ?.
	3.OA.B.5(A)
	   Apply properties of operations as strategies to multiply and divide. Examples: If 6 x 4 = 24 is known, then 4 x 6 = 24 is also known. (Commutative property of multiplication.) 3 x 5 x 2 can be found by 3 x 5 = 15, then 15 x 2 = 30, or by 5 x 2 = 10, then 3 x 10 = 30. (Associative property of multiplication.) Knowing that 8 x 5 = 40 and 8 x 2 = 16, one can find 8 x 7 as 8 x (5 + 2) = (8 x 5) + (8 x 2) = 40 + 16 = 56. (Distributive property.)
	3.OA.B.6(A)
	   Understand division as an unknown-factor problem. For example, find 32 / 8 by finding the number that makes 32 when multiplied by 8.
	3.OA.C.7(A)
	   Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one knows 40 / 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
	3.OA.D.8(A)
	   Solve two-step word problems using the four
			Can I recall basic multiplications and divisions with 0s-10s and multiply single digit numbers by multiples of 10?
			Can I identify and use patterns, properties, rules, and area to multiply and divide?
			Can I use multiplication and division to solve real world word problems involving equal groups and arrays?
			Can I solve real world two step word problems using the for operations?
				1. Explore patterns in 6s count-bys, muliplications, and divisions, and solve muliplication problems.
				2. Develop strategies for solving real world area problems.
				3. Explore patterns in 8s count-bys, multiplications, divisions, and solve multiplication problems.
				4. Write multiplication and division word problems of various types.
				5. Explore patterns in 7s count-bys, multiplications, and divisions, and solve word problems.
				6. Understand what a square number is and describe square number patterns in the multiplication table.
				7. Practice 6s, 7s, and 8s multiplications and divisions.
				8. Build fluency with 0s, 1s, 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, and 10s multiplications and divisions.
				9. Represent and solve word problems using the four operations
				10. Develop strategies for solving two step word problems.
				11. Develop strategies for solving two step word problems.
				12. Use place value and properties to multiply one-digit numbers by multiples of 10
				13. Use strategies to fluently multiply and divide within 100 and solve two step word problems.
				14. Build fluency with 0s,1s, 2s, 3s, 4s, 5,s 6s, 7s, 8s, 9s,
					Homework & Remembering
					Unit 2 test
					Unit 2 quizzes
					Exit Tickets
						Bible stories will be integrated into the story problems.

operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

3.OA.D.9(A)
Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

3.NBT.A.3(A)
Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.

3.NF.A.1(A)
Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.

3.MD.C.5(A)
Recognize area as an attribute of plane figures and understand concepts of area measurement.
•a. A square with side length 1 unit, called a unit square, is said to have one square unit of area, and can be used to measure area.
•b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

3.MD.C.7(A)
Relate area to the operations of multiplication and addition.
•a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
•b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
•c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a x b and a x c. Use area models to represent the distributive property in mathematical reasoning.
•d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

and 10s multiplications and divisions.
15. Use the Common Core Content standards and practices in variety of real world problem solving situations.

Unit 3 Measurement, Time, and Graphs *(updated 6/6/19)*	3.OA.A.3(A) Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 3.NBT.A.2(A) Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. 3.MD.A.1(A) Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.		Can I telll and write time to the nearest minute? Can I measure and estimate length, liquid volume, weight, and mass of objects? Can I draw a pictograph, bar graph, and line plot? Can I solve real world word problems involving intervals	1. Explore Customary Units of Length 2. Explore Customary Units of Liquid Volume 3. Measure Metric Units of LIquid Volume 4. Measure Customary Units of Weight and Metric Units of Mass	Homework & Remembering Unit 3 test Unit 3 quizzes Exit Tickets	Explore God's gift of time.

	3.MD.A.2(A)
	    Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
	3.MD.B.3(A)
	    Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
	3.MD.B.4(A)
	    Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units- whole numbers, halves, or quarters.
			of time, liquid volume,
			
			weight, mass, and
			
			information from a graph?
				5. Solve Word Problems Involving Liquid Volume and Mass
				
				6. Tell Time
				
				7. Tell Time Before and After the Hour
				
				8. Tell Elapsed Time
				
				9. Add and Subtract Time
				
				10. Solve Word Problems Involving Time
				
				11. Read and Create Pictographs and Bar Graphs
				
				12. Read and Create Bar Graphs with Multidigit Numbers
				
				13. Represent and Organize Data
				
				14. Use Graphs to Solve Time and Measurement Word Problems		

Unit 4 Multidigit Addition and Subtration
 	
(updated 6/6/19)
	3.OA.D.8(A)
	    Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
	3.OA.D.9(A)
	    Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
	3.NBT.A.1(A)
	    Use place value understanding to round whole numbers to the nearest 10 or 100.
	3.NBT.A.2(A)
	    Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
			Can I round whole numbers and estimate sums and differences and assess reasonableness of answers?
			Can I add and subtract whole numbers?
			Can I write a related subtraction word problem for an addition problem and vice versa?
			Can I solve a variety of real world problems?
				1. Make Place Value Drawings
				2. Build Numbers
				3. Locate Place Value in Word Problems
				4. Practice with Place Value
				5. Round to the Nearest Hundred
				6. Round to the Nearest Ten
				7. Explore Multidigit Addition
				8. Discuss Addition Methods
				9. Explore The Grouping Concept in Addition
				10. Practice Addition
				11. Ungroup to subtract
				12. Subtract Across Zeros
				13. Discuss Methods of Subtracting
				14. Relate Addition and Subtracting
				15. Practice Subtraction
				16 Practice Addition and Subtraction
				17. Solve Word Problems
				18 Focus on Mathematical Practices
					Homework & Remembering
					Unit 4 test
					Unit 4 quizzes
					Exit Tickets
						We will talk about how numbers relate to Bible concepts.

Unit 5 Write Equations to Solve Word Problems *(updated 6/6/19)*	3.OA.A.3(A) Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 3.OA.A.4(A) Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 x ? = 48, 5 = [] / 3, 6 x 6 = ?. 3.OA.D.8(A) Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.		Can I Solve a variety of word problems innvolving addition and subtraction within 1,000, unknown factors, extra or hidden information, and identify problems with not enough information? Can I solve real world two step word problems using the four operations and assess the reasonableness of answers?	1. Practice Solving Addition and Subtraction Situations 2. Solve Word Problems with Unknown Addends or Unknown Factors 3 Solve Word Problems with Unknown Starts 4. Solve Comparison Problems 5. Solve Comparison Problems with Misleading Language 6. Solve Word Problems with Extra, Hidden, or Not Enough Information 7. Write First Step Questions for Two Step Problems 8. Solve Two Step Word Problems 9. Solve Equations and Two Step Word Problems 10. Practice with Two Step Word Problems 11. Focus on Mathematical Practices	Homework & Remembering Unit 5 test Unit 5 quizzes Exit Tickets	Relate word problems to situations that occurred in the Bible.
Unit 6 Polygons, Perimeter, and Area *(updated 6/6/19)*	3.MD.C.5(A) Recognize area as an attribute of plane figures and understand concepts of area measurement. •a. A square with side length 1 unit, called a unit square, is said to have one square unit of area, and can be used to measure area. •b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. 3.MD.C.6(A) Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). 3.MD.C.7(A) Relate area to the operations of multiplication and addition. •a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. •b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. •c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a x b and a x c. Use area models to represent the distributive property in mathematical reasoning. •d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems. 3.MD.D.8(A) Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles		Can I sort quadrilaterals into subcategories by their shared attributes and draw examples of quadrilaterals given descriptions? Can I express the area of a shape partitioned into equal areas as a unit fraction? Do I understand the concept of area and can I find the area of a figure? Can I solve real world problems involving perimeter and area?	1. Explore Triangles 2. Explore Parallelograms, rectangles, squares, and Rhombuses 3. Draw a Quadrilateral 4 Classify Quadrilaterals 5 Explore Perimeter and Area 6. Explore Side Length with Area and Perimeter 7 Compare Areas and Perimeter 8 Explore Area of Rectilinear Figures 9. Solve Perimeter and Area Problems 10. Explore Tangram Shapes and Area 11. Focus on Mathematical Practices	Homework & Remembering Unit 6 test Unit 6 quizzes Exit Tickets	Bible stories will be integrated into the lessons.

	with the same perimeter and different areas or with the same area and different perimeters. 3.G.A.1(A) Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. 3.G.A.2(A) Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.					
Unit 7 Explore Fractions *(updated 6/6/19)*	3.NF.A.1(A) Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b. 3.NF.A.2(A) Understand a fraction as a number on the number line; represent fractions on a number line diagram. •a. Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line. •b. Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line. 3.NF.A.3(A) Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. •a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. •b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model. •c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram. •d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or 3.G.A.2(A) Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.		Can I write a fraction and unit fraction for a part of a whole and for a number on a number line? Can I write equivalent fractions including fractions that are equivaalent to whole numbers? Can I compare two fractions with the same denominator or the same numberator? Can I solve real world word problems involving fractions?	1. Explore Fractions 2. Model Fractions 3. Locate Fractions on the Number line 4. Compare Unit Fractions 5. Compare Fractions 6. Introduce Equivalence 7. Explore Equivalent Fractions 8. Problem Solving With Fractions 9. Focus on Mathematical Practices	Homework & Remembering Unit 7 test Unit 7 quizzes Exit Tickets	Bible stories will be integrated when possible