Qtr. 1: Weeks 1-3
August 8 – August 25 (14 days)
Grade 3, Unit 1: Problem Solving

UNIT OVERVIEW: USE PLACE VALUE UNDERSTANDING & PROPERTIES OF OPERATIONS TO PERFORM MULTI-DIGIT ARITHMETIC

In this unit, students will investigate, understand, and use place value to manipulate numbers and continue to develop understanding of addition and subtraction and use strategies and properties to do so proficiently and fluently. Student will also tell and write time to the nearest minute and measure time intervals in minutes.

ESSENTIAL QUESTIONS:	**KEY VOCABULARY:**
Why is place value important?	addition, subtraction, multiply, divide, dividend, divisor, quotient, place value, addend, skip counting, hour, minute, intervals, time, difference, sum, factor, partial product, product, expanded form, round, unknown number
How are addition and subtraction related?	
What strategies can I use to help me tell and write time to the nearest minute and measure time intervals in minutes?	
How do two-step word problems differ from one-step word problems?	

Standards/Objectives	
Mastery Standards	**Standards Clarification**
[3-OA.8] 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. • This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order.	**[3-OA.8]** Two step problems using easy/medium addition and subtraction situations (use concrete materials and/or drawings) – no judging reasonableness.
[3-MD.1] Tell and write time to the nearest minute and measure time interval in minutes.	**[3-MD.1]** Tell time to nearest minute.
Opportunity for Depth Standards	**Standards Clarification**
[3-OA.3] Use multiplication and division within 100 to solve word problems in situations involving equal groups and arrays, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	**[3-OA.3]** Add/Sub word problems (all types), multiplication (unknown products), division (equal groups). **No measurement**

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[3-OA.7] Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	**[3-OA.7] Instructional focus on: 0s, 1s, 5s, and 10s BUILDING FLUENCY** *Basic Fact Assessment: Addition addends less than or equal to 9*
Supporting Standards	**Standards Clarification**
[3-NBT.1] Use place value understanding to round whole numbers to the nearest 10 or 100.	**[3-NBT.1]** Round to nearest 10 or 100.
[3-NBT.2] Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition/subtraction.	**[3-NBT.2]** Add/Subtract within 1000.

<div align="center" colspan="4">**Resources for Quarter 1 Unit 1** *Some task (OA7) may need to be modified to follow MCPSS 3rd grade multiplication progression.*</div>			
Engage New York Module 1 – (OA3, 7, 8) https://www.engageny.org/resource/grade-3-mathematics-module-1 **Module 2 Topic A (Lessons 1-3) – (MD1, NBT1, NBT2)** https://www.engageny.org/resource/grade-3-mathematics-module-2	**Georgia Standards Unit 1 – (NBT1, NBT2)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-1.pdf **Unit 2 – (OA3, OA7)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf • **Sharing Pumpkin Seeds** • **Skittles Cupcake Combo** **Unit 3 – (OA8)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-3.pdf • **Read All About It** • **It takes 2** • **Hooked on Solutions**	**Illustrative Math (OA3, OA7, OA8)** https://www.illustrativemathematics.org/content-standards/3/OA **(NBT1, NBT2)** https://www.illustrativemathematics.org/content-standards/3/NBT	**Math In Focus** **Chapter 16 - (MD1)** **Chapter 2 Lesson 4 - (NBT1)** **Chapter 3 Intro - (NBT2)**

	Unit 6 – (MD1) https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf • **Let's Talk About Time** • **Daily Schedule** • **Plane Ride**		
FAL: *Caterpillars and Leaves* **(OA8, OA9)** http://education.ky.gov/curriculum/conpro/Math/Documents/KDE_PS%20Number%20Operations%20Caterpillars%20and%20Leaves%20Grades%20K_3%20v%203%200.docx	**FAL:** *Caterpillars and Leaves* **(OA8, OA9)** http://education.ky.gov/curriculum/conpro/Math/Documents/KDE_PS%20Number%20Operations%20Caterpillars%20and%20Leaves%20Grades%20K_3%20v%203%200.docx	**FAL:** *Caterpillars and Leaves* **(OA8, OA9)** http://education.ky.gov/curriculum/conpro/Math/Documents/KDE_PS%20Number%20Operations%20Caterpillars%20and%20Leaves%20Grades%20K_3%20v%203%200.docx	**FAL:** *Caterpillars and Leaves* **(OA8, OA9)** http://education.ky.gov/curriculum/conpro/Math/Documents/KDE_PS%20Number%20Operations%20Caterpillars%20and%20Leaves%20Grades%20K_3%20v%203%200.docx

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Focus Standards for Mathematical Practice
MP.7 Look for and make use of structure.
MP.8 Look for and express regularity in repeated reasoning.

Qtr. 1: Weeks 4-6
August 28 - September 15 (14 days)
Grade 3, Unit 2 Foundation of Multiplication

UNIT OVERVIEW: FOUNDATION OF MULTIPLICATION
In this unit, students will develop an understanding of multiplication.

ESSENTIAL QUESTIONS:	**KEY VOCABULARY:**
How can multiplication be represented? How does an array represent the meaning of multiplication? What strategies can be used to solve real world division problems? How can we use patterns to solve problems?	unknown product, equal groups, equation, array, commutative property of multiplication, equation, factor, partial products, unknown numbers, fact families, factor pairs

Standards/Objectives	
Mastery Standards	**Standards Clarification**
[3-OA.1] Interpret products of whole numbers, e.g., interpret 5x7 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 5×7.	**[3-OA.1]** Products of whole numbers (multiplication) as groups of objects.
[3-OA.5] Apply properties of operations as strategies to multiply and divide. • Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known.	**[3-OA.5]** Commutative property of multiplication.
[3-OA.9] 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-OA.9]** Examine patterns connected to place-value and multiplication.
Opportunity for Depth Standards	**Standards Clarification**
[3-OA.3] Use multiplication within 100 to solve word problems in situations involving equal groups and arrays by using drawings and equations with a symbol for the unknown number to represent the problem.	**[3-OA.3]** Add/Sub word problems (all types), multiplication (unknown products). **No measurement**

[3-OA.7] Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 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.7] Instructional focus on: 2s, 4s, and 8s (continue to review 0s, 1s, 5s, 10s) - BUILDING FLUENCY** *Basic Fact Assessment: Addition addends less than or equal to 9*

Resources for Quarter 1, Unit 2
Some task (OA7) may need to be modified to follow MCPSS 3rd grade multiplication progression.

Engage New York Module 1 Topic A, C (Lessons 7-9) – (OA1, OA3, OA5, OA7) https://www.engageny.org/resource/grade-3-mathematics-module-1	**Georgia Standards Unit 2 – (OA1, OA5)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf • **One Hundred Hungry Ants!** • **Arrays on the Farm** • **What's My Product?**	**Illustrative Math – (OA7, OA9)** **Addition Patterns** https://www.illustrativemathematics.org/content-standards/3/OA/D/9/tasks/953 **Making a ten** https://www.illustrativemathematics.org/content-standards/3/OA/D/9/tasks/955 **Patterns in the multiplication table** https://www.illustrativemathematics.org/content-standards/3/OA/D/9/tasks/956 **Kiri's Multiplication Matching Game** https://www.illustrativemathematics.org/content-standards/3/OA/C/7/tasks/2064	**Math In Focus** **Chapter 6 Lesson 2 – (OA1, OA3)** **Chapter 6 Lessons 1 & 4 – (OA3, OA5, OA7)**

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Revised June 27, 2017

Qtr. 1: Weeks 7-9 September 18 - October 6 (15 Days) Grade 3, Unit 3: Foundations of Division

UNIT OVERVIEW: FOUNDATION OF DIVISION
In this unit, students will develop an understanding of division. Students will develop an understanding of the relationship between multiplication and division.

ESSENTIAL QUESTIONS:	KEY VOCABULARY:
In what ways can division be represented? How are multiplication and division alike and different? How can we model division? How can you use patterns to solve multiplication and division problems?	unknown product, equal groups, equation, array, commutative property of multiplication, equation, factor, partial products, unknown numbers, divide, dividend, divisor, quotient, decomposing, subtraction

Standards/Objectives	
Mastery Standards	**Standards Clarification**
[3-OA.2] Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ 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 $56 \div 8$.	**[3-OA.2]** Quotients of whole numbers (divide), partitioning/equal shares. ***Division problems should be related to multiplication facts already taught.***
[3-OA.4] 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 $8 \times \square = 48$, $5 = \square \div 3$, $6 \times 6 = \square$	**[3-OA.4]** Unknown whole in multiplication/division.
[3-OA.9] 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-OA.9]** Examine patterns connected to place-value and multiplication.

Opportunity for Depth Standards	Standards Clarification
[3-OA.3] Use multiplication and division within 100 to solve word problems in situations involving equal groups and arrays, e.g., by using drawings and equations with a symbol for the unknown number to represent the quantities.	**[3-OA.3]** Add/Sub word problems (all types), multiplication (unknown products), division (equal groups). **No measurement**
[3-OA.7] Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	**[3-OA.7] Instructional focus on: 0s, 1s, 2s, 4s, 5s, 8s and 10s - BUILDING FLUENCY** *Basic Fact Assessment: Addition addends less than or equal to 9*

Resources for Quarter 1, Unit 3
Some task (OA7) may need to be modified to follow MCPSS 3rd grade multiplication progression.

Engage New York Module 1 Topic D (Lesson 12-13) E (Lesson 14) – (OA2, OA3, OA4, OA7) https://www.engageny.org/resource/grade-3-mathematics-module-1	**Georgia Standards Unit 2 – (OA2, OA3, OA5)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf • **The Doorbell Rang** • **Family Reunion** • **Skittles Cupcake Combo** • **Stuck on Division**	**Illustrative Math - (OA2, OA4, OA9)** **Fish Tanks** https://www.illustrativemathematics.org/content-standards/3/OA/A/2/tasks/1531 **Symmetry of the addition table** https://www.illustrativemathematics.org/content-standards/3/OA/D/9/tasks/954 **Markers in Boxes** https://www.illustrativemathematics.org/content-standards/3/OA/A/2/tasks/1540 **Finding the unknown in a division equation** https://www.illustrativemathematics.org/content-standards/3/OA/A/4/tasks/1814	**Math In Focus** **Chapter 6 Lessons 6 & 7 (OA2, OA3, OA4)**

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