Qtr. 4: Weeks 1-3
March 20 - April 13 (14 days)
Grade 1, Unit 10

UNIT OVERVIEW: GEOMETRY, MEASUREMENT & DATA

Students will begin partitioning regions into equal shares using a context such as cookies, pies, pizza, blocks of wood, brownies, construction paper, etc. This is a foundational building block of fractions, which will be extended in future grades. Students should have ample experiences using the words, halves, fourths, and quarters, and the phrases half of, fourth of, and quarter of. Students should also work with the idea of the whole, which is composed of two halves, or four fourths or four quarters. When working with time, students should be able to read both analog and digital clocks and then orally tell and write the time. Times should be limited to the hour and the half-hour. Students need experiences exploring the idea that when the time is at the half-hour the hour hand is between numbers and not on a number. As students continue working with data, they will pose questions about the number of items in each category, the total number of items, and compare the number of items in categories. The total number of items to be sorted should be less than or equal to 100 to allow for sums and differences less than or equal to 100.

Essential Questions	**Key Vocabulary**
Why is telling time important? Why is it important to know the difference between the two hands? Why do we need to be able to tell time? Why do people collect data? Are there different ways to display data? How can we use counting to compare objects in a set? How can we use tally marks to help represent data in a table or chart? How does a graph help us better understand the data collected?	• analog • compare • data • digital • estimate • graph • minute hand • hour hand • hour • whole • minute • time • o'clock • fourths • quarters • fraction • halves • partition • more • less • most • least • same • category • table • different • chart • equal shares

Standards/Objectives	
Opportunity for Depth Standards	**Standards Clarification**

[1-OA.6] Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as **counting on**;
 	
• **making ten** (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14);
• **decomposing a number leading to a ten**
  (e.g., 13 − 4 = 13 − 3 − 1 = 10 − 1 = 9);
• **using the relationship between addition and subtraction**
  (e.g., knowing that 8 + 4 = 12, one knows 12 − 8 = 4);
• and **creating equivalent but easier or known sums**
  (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13)
	[1-OA.6] Facts to 20 **with FLUENCY.**
	
	Basic Fact Assessment: Addition and Subtraction to 10

Supporting Standards	Standards Clarification
[1-MD.4] Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	**[1-MD.4]** Working with graphs and tally charts.

Additional	Standards Clarification
[1-MD.3] Tell and write time in hours and half-hours using analog and digital clocks.	**[1-MD.3]** Hour and ½ Hour.
[1-G.3] Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	**[1-G..3]** Equal Shares: Halves & Fourths (Quarters).

Continued (Not New)
1.G.1, 1.G.2, MD1, MD2   Continue for reinforcement and review

Resources Quarter 4 Unit 10			
Engage NY Module 3 Topic D – (MD4) https://www.engageny.org/resource/grade-1-mathematics-module-3 **Module 5 Topics C, D – (G3, MD3)** https://www.engageny.org/resource/grade-1-mathematics-module-5	**Georgia Standards Unit 4 – (MD3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/1st-Math-Unit-4.pdf **Unit 6 – (G3, MD4)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/1st-Math-Unit-6.pdf	**Howard County – (G3, MD4)** https://hcpss.instructure.com/courses/9414/pages/grade-1-year-at-a-glance *(Scroll to find standard)*	**Math in Focus** **Chapter 15, Lessons 2-3 - (MD3)** *Telling Time* **Chapter 11, Lessons 1-3 - (MD4)** *Graphs and Charts*

Xtra Math https://xtramath.org/#/home/index *Free, individualized web based program that helps to build student fluency.*

Focus Standards for Mathematical Practice
MP.6 Attend to precision.
MP.7 Look for and make use of structure.

Qtr. 4: Weeks 4-6
April 16 - May 4 (16 days)
Grade 1, Unit 11

UNIT OVERVIEW: ADDITION AND SUBTRACTION STRATEGIES

Students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., ―making tens) to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.

Essential Questions	**Key Vocabulary** • addition • subtraction • computation strategy
How can we find the difference when we compare one quantity to another? How can we represent problem situations? How can we use different combinations of numbers and operations to represent the same quantity?	• associative property of addition • commutative property of addition • counting on • number line • strategies for addition • compare • unknown addend • make ten • sum • doubles • minus • put together • benchmark • take apart

Standards/Objectives	
Mastery Standards	**Standards Clarification**
[1-OA.2] Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	**[1-OA.2]** 3 addends for sums less than or equal to 20.
[1-OA.3] Apply properties of operations as strategies to add and subtract. • Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. **(Commutative property of addition.)** • To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. **(Associative property of addition.)**	**[1-OA.3]** Commutative & associative properties.
[1-OA.4] Understand subtraction as an unknown-addend problem. • For example, subtract $10 – 8$ by finding the number that makes 10 when added to 8. Add and subtract within 20.	**[1-OA.4]** Subtraction as unknown addend.

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Opportunity for Depth Standards	Standards Clarification
[1-OA.1] Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	**[1-OA.1]** Word Problems to 20. *Harder Types Not to Mastery* **Take From Start Unknown** Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $\square - 2 = 3$ **Compare Change Unknown** Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? **Compare Smaller Unknown** Lucy has three fewer apples than Julie. Julie has five apples. How many apples does Lucy have? **Add To Start Unknown** Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? $\square + 3 = 5$
[1-OA.6] Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as **counting on**; • **making ten** (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); • **decomposing a number leading to a ten** (e.g., $13 – 4 = 13 – 3 – 1 = 10 – 1 = 9$); • **using the relationship between addition and subtraction** (e.g., knowing that $8 + 4 = 12$, one knows $12 – 8 = 4$); • and **creating equivalent but easier or known sums** (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$)	**[1-OA.6]** Facts to 20 **with FLUENCY.** *Basic Fact Assessment: Addition and Subtraction to 10*

Resources Quarter 4 Unit 11			
Engage NY Module 2,Topics A (Lessons 1, 2, 6, 7) & B – (OA1, OA2, OA3, OA4) https://www.engageny.org/resource/grade-1-mathematics-module-2 **Module 4, Topic E – (OA1)** https://www.engageny.org/resource/grade-1-mathematics-module-4 **Module 6, Topic F – (OA1)** https://www.engageny.org/resource/grade-1-mathematics-module-6	**Howard County – (OA1, OA2, OA3, OA4)** https://hcpss.instructure.com/courses/9414/pages/grade-1-year-at-a-glance *(Scroll to find standard)*	**North Carolina Wiki Spaces – (OA1)** http://maccss.ncdpi.wikispaces.net/file/view/CCSSMathTasks-Grade1.pdf/593328526/CCSSMathTasks-Grade1.pdf • **Compare Difference Unknown** • **A Day at the Beach** • **The Crayon Box** • **Toy Cars** **(OA1, OA2, OA3, OA4)** http://commoncoretasks.ncdpi.wikispaces.net/first+grade+tasks	**Math in Focus** **Chapter 13, Lesson 5 - (OA2)** *Adding 3 Numbers* **Chapter 13, Lesson 6 - (OA1)** *Story Problems*
Xtra Math https://xtramath.org/#/home/index *Free, individualized web based program that helps to build student fluency.*			
Focus Standards for Mathematical Practice			
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.7 Look for and make use of structure.			
MP.8 Look for and express regularity in repeated reasoning.			

Qtr. 4: Weeks 7-9 **May 7 - May 24 (14 Days)** **Grade 1, Unit 12**

UNIT OVERVIEW: USING PLACE VALUE TO ADD AND SUBTRACT WITHIN 100

Provide multiple and varied experiences that will help students develop a strong sense of numbers based on comprehension – not rules and procedures. Number sense is a blend of comprehension of numbers and operations and fluency with numbers and operations. Students gain computational fluency (using efficient and accurate methods for computing) as they come to understand the role and meaning of arithmetic operations in number systems. Students should solve problems using concrete models and drawings to support and record their solutions. It is important for them to share the reasoning that supports their solution strategies with their classmates. Students will usually move to using base-ten concepts, properties of operations, and the relationship between addition and subtraction to invent mental and written strategies for addition and subtraction.

Essential Questions How do we represent a collection of objects using tens and ones? How can benchmark numbers build our understanding of numbers? How can I represent addition and subtraction? How are the operations of addition and subtraction alike and different?	**Key Vocabulary** • addition • benchmark • chart • compare • compose • counting on • data • decompose • equal to • less than • more than • number line • place value: tens and ones • representation • subtraction • addition • equation • true • false • ten more • ten less

Standards/Objectives	
Mastery Standards	**Standards Clarification**
[1-OA.8] Determine the unknown whole, number in an addition or subtraction, equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations: $8 + \square = 11;\ 5 = \square - 3;\ 6 + 6 = \square$	**[1-OA.8]** Unknown whole in +/- equations
[1-NBT.5] Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	**[1-NBT.5]** 10 more/10 less
[1-NBT.6] Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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 and explain the reasoning used.	**[1-NBT.6]** Add/Subtract multiples of 10

Opportunity for Depth Standards	Standards Clarification
[1-NBT.4] Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, 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 and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	**[1-NBT.4]** Add **within 100** using strategies
[1-OA.6] Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as **counting on**; • **making ten** (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); • **decomposing a number leading to a ten** (e.g., 13 − 4 = 13 − 3 − 1 = 10 − 1 = 9); • **using the relationship between addition and subtraction** (e.g., knowing that 8 + 4 = 12, one knows 12 − 8 = 4); • and **creating equivalent but easier or known sums** (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13)	**[1-OA.6]** Facts to 20 **with FLUENCY** *Basic Fact Assessment: Addition and Subtraction to 10*
Continued (Not New)	
1.NBT.1, 1.NBT.2 & 1.NBT.3 Continue for reinforcement and review	

Resources Quarter 4 Unit 12			
Engage NY Module 6 Topics C, D – **(NBT4, NBT5, NBT6)** https://www.engageny.org/resource/grade-1-mathematics-module-6 **Module 1 Topics D, H – (OA8)** https://www.engageny.org/resource/grade-1-mathematics-module-1 **(1.OA.8)** **Module 2 Topics A (Lessons 8, 9, 10, 11) B (fluency portion of lessons only) C (fluency portion of lessons only) – (OA6)** https://www.engageny.org/resource/grade-1-mathematics-module-2	**Georgia Standards Unit 5 – (NBT4, NBT5, NBT6)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/1st-Math-Unit-5.pdf **Illustrative Math – (OA6, OA8)** https://www.illustrativemathematics.org/1	**Howard County – (NBT4, NBT5, NBT6, OA6, OA8)** https://hcpss.instructure.com/courses/9414/pages/grade-1-year-at-a-glance **North Carolina Wiki Spaces – (OA6, OA8)** http://maccss.ncdpi.wikispaces.net/file/view/CCSSMathTasks-Grade1.pdf/593328526/CCSSMathTasks-Grade1.pdf • **Snap** • **What is the Missing Number?**	**Math in Focus** **Chapter 17 Lesson 1, 2, 3 – (NBT4, NBT6)** *Addition and Subtraction within 100*
Xtra Math https://xtramath.org/#/home/index *Free, individualized web based program that helps to build student fluency.*			
Focus Standards for Mathematical Practice			
MP.1 Make sense of problems and persevere in solving them.			
MP.3 Construct viable arguments and critique the reasoning of others.			
MP.4 Model with mathematics.			
MP.7 Look for and make use of structure.			