**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 1: Week 1 –**  **Unit – 1 – Developing Base Ten Number Sense**  **I can statements**   * I can count, read and write to 120. I can count to 120. * I can read numbers to 120. * I can write numbers to 120. * I can show quantity with numerals.   **Technology Resources/Tips:**  **Instructional Support:** [**Learning-progression**](http://www.nzmaths.co.nz/number-early-learning-progression?parent_node)  [**Numbers-to-120**](https://njctl.org/courses/math/1st-grade/numbers-to-120/)  **Student Practice:** [**Balloon Pop**](http://www.sheppardsoftware.com/mathgames/earlymath/BalloonPopVOrder2.htm)  **GA Frameworks**  **Unit 1**  p. 42, Hop to It  p. 49, Explore 99 Chart  p. 70, Oh No 99 Chart! | **AKS**  **10. NBT.1:** Count, read, write and order numerals within 120 regardless of beginning number  1**1.NBT.1:** Represent the number of objects in a set by a written numeral  **21.NBT.PRE**: Exchange equivalent quantities of coins by making fair trades involving combinations of pennies, nickels, dimes and quarters and count out a combination needed to purchase items less than a dollar (not assessed, different components can be taught throughout the year) | **Vocabulary**  Combine  Different  Rectangle  Same  Separate | **Textbook Resources**  **Pearson**  **Lessons**  7.2  7.4  7.5  7.6  9.5 |
| **Teacher notes:**   * Provide students with opportunities to count on by ones, and then to skip-count by more difficult sequences (by 2’s, 5’s, 10’s), starting at any number less than 120. * Provide students with problems/opportunities to count to 120 starting at any number less than 120. * Provide students with opportunities to practice reading and writing numerals. * Provide students with opportunities to communicate their reasoning for solutions through verbal and written explanations as well as visuals and drawings. * Provide students with the use of manipulatives and technologies which offer more concrete exploration of counting and sequence expansion. * Provide problems/opportunities for students to match numerals with picture representations, and to represent a number of objects with a numeral. | **Calendar**  Numbers 1-120  Skip Counting  Patterns | **ASSESSMENT**  **PREASSESSMENT** | **Exemplar/**  **Problem Solving**  Pre-test (Exemplar) will be next week |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 1: Week 2 –**  **Unit – 1 – Developing Base Ten Number Sense**  **I can statements**   * I can count, read and write to 120. I can count to 120. * I can read numbers to 120. * I can write numbers to 120. * I can show quantity with numerals.   **Technology Resources**  **Instructional Support:** [**Mathwire Money**](http://www.mathwire.com/money/money.html)  **Student Practice:** [**Counting Coins**](http://www.apples4theteacher.com/java/counting/money.html)[**FruitShoot Coins**](http://www.sheppardsoftware.com/mathgames/earlymath/Fruit_Shoot_coins.htm)  **GA Frameworks**  **Unit 1**  p. 42, Hop to It  p. 49, Explore 99 Chart  p. 70, Oh No 99 Chart! | **AKS**  **10. NBT.1**: Count, read, write and order numerals within 120 regardless of beginning number  **11.NBT.1:** Represent the number of objects in a set by a written numeral | **Vocabulary**  add  addition  combine  commutative  count  counting strategy  demonstrate  difference  doubles  doubles plus one  minus  numeral  one less  one more  plus  separating  subtract  subtraction  sum  ten less  ten more | **Textbook Resources**  **Pearson Lessons**  7.2  7.4  7.5  7.6  9.5 |
| **Exemplar/**  **Problem Solving**  [Farmer Brown](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/Exemplars%20in%20PDF%20(not%20on%20resources%20above)/K-2/Farmer_Brown.pdf?_&d2lSessionVal=NgHadgVc1LZeGNH9ZLRzGyA5X&ou=58323)  (Pre-Test) |
| **Teacher notes:**  **Questions to Focus Instruction:**  Can students recognize, read, and write numerals to 120?   * Can students count fluently to 120 beginning at any number less than 120? * Can students represent a group of objects with a numeral (up to 120)? * Can students recognize different representations (e.g., number names, base ten model, digits, or picture representation) of numerals through 120? * Can students explain and defend their choices and reasoning? | **ASSESSMENT**  (Select for this week)  **Common Assessment -**  Big 20 (Pre-Test)  Fact Fluency (Pre-Test)  Exemplar (Pre-Test) | **Calendar/Number talks focus**  Graphing and comparing data  100’s chart  Birthdays  Skip counting  Represent #’s with 10’s and 1’s |

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| **Quarter 1: Week 3 –**  **Unit – 1 – Developing Base Ten Number Sense**  **I can statements**   * I can organize data with up to three categories. * I can interpret a graph by asking questions about the data. * I can interpret a graph by answering questions about the data. * I can interpret a graph by comparing how many more are in one category than another. * I can interpret a graph by comparing how many less are in one category than another.   **Technology Resources**  **Instructional Support:** [**Eye Graph**](http://illuminations.nctm.org/Lesson.aspx?id=548)  **GA Frameworks**  **Unit 1**  p. 63, Trashcan Basketball  p. 76, Favorite Sports  **Unit 2**  p. 13, Button, Button  p. 17, Count it, Graph it  p. 22, The One Minute Challenge | **AKS**  **25.MD.4:** Organize, represent, interpret data with up to three categories using tables, tally charts, picture graphs, and bar graphs  **26.MD.4**: Ask and answer questions about represented data by comparing data in each category and finding the total number of data points | **Vocabulary**  add  addition  combine  count  counting strategy  demonstrate  difference  minus  numeral  one less  one more  plus  separating  subtraction  sum  graph  table  picture graph  tally mark  bar graph  tally chart | | **Textbook Resources**  **Pearson**  **Lessons**  14.2 |
| **Exemplar/**  **Problem Solving**  Hands On Standards:  [Bar Graph](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_MD.pdf) Lesson 4  [Student pages](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_MD_Stu.pdf) |
| **Teacher notes: Understanding the Standard:**   * Provide a variety of opportunities for students to categorize objects or other data sets in order to create data representations in the world around them. Such activities might include sorting shoes, personal attributes (e.g., hair color, eye color, boys and girls), ways they get to school, favorite color. Once the sets have been determined, guiding students to participate in displaying the information in a list is helpful. For example, "There are 5 students who go to bed after 9 PM, 13 students who go to bed between 8 PM and 9 PM, and 7 students who go to bed before 8 PM". * Have students sort candy by color, then look at another student's data and decide which color was the most frequent, least frequent, and so on. * Have students count how many students have each hair color. Then use this data to determine how many students there are in total, and how many more students have brown hair than blonde hair, etc. | **ASSESSMENT**  (Select for this week)  **Common Assessment**  Finish Pre-Tests is needed  **DDA - \_\_\_\_\_**  **Other -**  Exemplar: Socks for Everyone | | **Skills to Preview/Review:**  (Calendar/Number Talks)  money  graphing  data  measurement  coins | |

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| **Quarter 1: Week 4 –**  **Unit – 1 – Developing Base Ten Number Sense**  **I can statements**   * I can you exchange equivalent quantities of coins.   **Super Source**  **Gr. K-2 (CR)** Bank 5; Rod Toys    **Gr. K-2 (PB)** Pattern Block Toy Factory  **Hands On Standards**  [**Gr.2 (M/D)**](http://www.hand2mind.com/ccssdownloads/e78866_HOSC_G2_MD.pdf) **Student** [**Pages**](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78866_HOSC_2_MD_Stu.pdf) **15-19**  Lesson 8: The Penny and Nickel  Lesson 9: Penny, Nickel, and Dime  Lesson 10: Understanding Quarters | **AKS**  21.NBT.PRE: Exchange equivalent quantities of coins by making fair trades involving combinations of pennies, nickels, dimes and quarters and count out a combination needed to purchase items less than a dollar (not assessed, different components can be taught throughout the year) | **Vocabulary**  amount  cent  coins  dime  equivalent  exchange  fair trade  five dollar bill  nickel  one dollar  penny  quarter  ten dollar bill  twenty dollar bill  value | | **Textbook Resources**  Super Source  **Gr. K-2 (CR)** Bank 5 Rod Toys    **Gr. K-2 (PB)** Pattern Block Toy Factory |
| **Exemplar/**  **Problem Solving**  [NBT task #2](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1nbt1_quarter1_assessmenttask2.docx/445904186/1nbt1_quarter1_assessmenttask2.docx) |
| **Teacher notes:** | **ASSESSMENT**  (Select for this week) | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  hundreds chart  one more  one less  shapes  patterns,  money  composing #’s to 10,  hundreds chart  coins | |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 1 Week 5**  **Unit 2: Operations and Algebraic Thinking**  **I can statements**   * I can solve word problems by adding and subtracting within 20.   **Technology Resources**  **Instructional Support:**  \*\***Addition Strategies can be reviewed and discussed while solving word problems.\*\***  **Student Practice:** [**How Many Left?**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L117)  **GA DOE Frameworks**  **Unit 5**  p. 22, Developing Meaning by using Story Problems: Result Unknown  p. 41, Wheel Shop  **Differentiation:** Don't let computation concerns interfere with students exposure to problems. Students can be given fact charts, number lines, hundred charts, or calculators to support computational skills. Problems can be differentiated by giving students number sets to choose from when solving problems. | **AKS**  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)\* | **Vocabulary**  Add  Addend  Addition sentence  Count back  count forward  count on  difference  fewer than  minus  more than  plus  subtract  subtraction sentence | | **Textbook Resources**  **Pearson**  **Lessons**  1.1-1.8  2.4-2.8  2.11  4.10  5.4  6.7 |
| **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_NBT.pdf):  There are a lot of lessons on strategies to add/subtract.  [Lessons 4-7](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_NO_Stu.pdf) |
| **Teacher notes:** Collaborate in small groups to develop problem-solving strategies using a variety of models such as drawings, words, and equations with symbols for the unknown numbers to find the solutions. Additionally students need the opportunity to explain, write, and reflect on their problem-solving strategies. [The situations](http://www2.hcpss.org/math/ElementaryMath/cceguides/CCproblemsituations.pdf) for the addition and subtraction story problems should involve sums and differences less than or equal to 20 using the numbers 0 to 20. Students need the opportunity of writing and solving story problems involving three addends with a sum that is less than or equal to 20. For example, each student writes or draws a problem in which three whole things are being combined. The students exchange their problems with other students, solving them individually and then discussing their models and solution strategies. Now both students work together to solve each problem using a different strategy. CENTER ACTIVITY: Students can write their problems at a center. -or- Students can write their problems on note cards and leave them at a center for other students to solve at a later date. Literature is a wonderful way to incorporate problem-solving in a context that young students can understand. ANY book can be used as a context for a problem. As the teacher reads the story, students use a variety of manipulatives, drawings, or equations to model and find the solution to problems from the story. | **ASSESSMENT**  (Select for this week) | | **Skills to Preview/Review:**  (**Calendar/**  **Number Talks)**  word problems addition/  subtraction strategies | |

**Arcado Math Frameworks 1st Nine Weeks 2015-2016**

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| **Quarter 1: Week 6 –**  **Unit 2** **Operations and Algebraic Thinking**  **I can statements**   * I can solve addition word problems that have three whole numbers by using equations. * I can solve addition word problems that have three whole numbers by using objects. * I can solve addition word problems that have three whole numbers by using drawings.   **Technology Resources**  **Performance Based Task:** [**Unit OA stations**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L102)  **Student Practice:** [**Mission-addition**](http://www.turtlediary.com/grade-1-games/math-games/mission-addition.html)  [**Word-problems-adding-three-numbers**](http://www.ixl.com/math/grade-1/word-problems-adding-three-numbers) | **AKS**  **2. 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) | **Vocabulary**  Add  Addend  Addition sentence  Count back  count forward  count on  difference  fewer than  minus  more than  plus  subtract  subtraction sentence | **Textbook Resources**  **Pearson**  **Lessons**  5.9 |
| **Exemplar/**  **Problem Solving**  **Gr. 1(OAT)**  Lesson 3: Adding Three Numbers |
| **Teacher notes:** It is important to attend to the difficulty level of the problem situations in relation to the position of the unknown.  Result Unknown, Total Unknown, and Both Addends Unknown problems are the least complex for students.  The next level of difficulty includes Change Unknown, Addend Unknown, and Difference Unknown  The most difficult are Start Unknown and versions of Bigger and Smaller Unknown (compare problems)*.*  **Concrete** Students will be able to use objects such as color tiles and snap cubes to model the word problem.  **Semi-Concrete:** Students will be able to use a rekenrek to help them solve the word problems. | **ASSESSMENT**  (Select for this week) | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Hundreds chart  3-D Shapes |

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| **1st Nine Weeks ~ Week 7**  **Unit 2- Operations and Algebraic Thinking**  **I can statements**   * I can solve word problems by looking for key vocabulary used when adding or subtracting.   **Technology Resources**  **Instructional Support:**  [**Turn around trains**](http://www.k-5mathteachingresources.com/support-files/turn-around-trains.pdf)  [**Domino Fact families**](http://www.k-5mathteachingresources.com/support-files/domino-fact-families.pdf)[**Combining food**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L64)  **Performance Based Task:**  [**Short Assessment**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1oa3_assessmenttask4.docx/445906978/1oa3_assessmenttask4.docx)  **GA DOE Frameworks**  **Unit 5**  p. 29, Lots of Dots  p. 35, What Numbers Can You Make? | **AKS**  **3. OA.3:** Explore and apply properties of operations as strategies to add and subtract (e.g., 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). *Students do not use formal terms for these properties. Problems should be within 20.* | **Vocabulary**  Addend  Add  Addition sentence  Count back  Count forward  Count on  Difference  Fewer than  Minus  More than  Plus  Subtract  Subtraction sentence | | **Textbook Resources**  **Pearson**  **Lessons**  1.7  4.1  5.8  **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_OA.pdf):  Associative Property  Commutative Property I  Commutative Property II  Student pages [Lesson 4-6](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_OAT_Stu.pdf) |
| **Teacher Notes:**  **Concrete:** Students will be able to use mathematical tools, such as cubes and counters to show the properties.  **Semi-Concrete:** Students will be able to use the rekenrek to model the properties and make ten.  **Semi-Abstract:** Students will be able to use representations such as the number line and a 100 chart to model these ideas | **Assessment** | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Hundreds chart  3-D Shapes | |

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| **1st Nine Weeks – Week 8**  **Unit – 2 Operations and Algebraic Thinking**  **I can statements**   * I can solve word problems. * I can solve for missing/ unknown addend.   **Technology Resources**  **Instructional Support:** [**Try for five**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L65)  **Performance Based Task:** [**Number link on number line**](http://www.sharemylesson.com/teaching-resource/Number-Work-6114729/)[**What Balances?**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L119)  [**Fact families**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L107)  [**Cave Game**](https://www.illustrativemathematics.org/illustrations/1234)  [**Fact family with pictures**](https://www.illustrativemathematics.org/content-standards/tasks/1612)  **GA DOE Frameworks**  **Unit 5**  p. 29, Lots of Dots  p. 35, What Numbers Can You Make? | **AKS**  **4.OA.4**: Model and explain subtraction as an unknown-addend problem (e.g., subtract 10-8 by finding the number that makes 10 when added to 8) | **Vocabulary**  Add  Addition  Addend  Combine difference  Equivalent  In all  Separating | | **Textbook Resources**  **Pearson/enVision**  **Lessons**  2.1-2.3  3.4  4.2  4.7-4.9  6.3-6.5  **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_OA.pdf):  Finding Missing Addends  Student pages [Lesson 8](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_OAT_Stu.pdf) |
| **Teacher notes:**   * Sarah picked three apples from the tree. Sarah needs 15 apples in all. How many more apples does Sarah need to pick? * There were 12 children on the swim team. Four of them were boys and some were girls. How many girls were on the swim team? * The zoo keeper gave some bananas to the monkeys for lunch. The monkeys ate 7 bananas and the zoo keeper counted 8 left. How many bananas did the zoo keeper start with? * Marty has 9 books in his library. He wants to have 18. How many more books does Marty need to get? * Ms. Smith has 17 stamps left in her book of 20. How many stickers did she use? | **ASSESSMENT**  (Select for this week) | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Hundreds chart  3-D Shapes | |

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| **1st Nine Weeks Week 9**  **Unit 2 Operations and Algebraic Thinking**  **I can statements**   * I can relate counting to addition or subtraction? When we count up we are adding. When we count down we are subtracting.   **Technology Resources**  **Instructional Support:** [**Looking back and forward**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L43)  **Student Practice:**  [**Missing number**](http://www.kidsnumbers.com/addition_missing_number.php)  [**One more/one less scoop**](http://www.k-5mathteachingresources.com/support-files/one-more-one-less-scoop.pdf)  ***Journal Prompt:***  I subtracted one number from another and got a difference of two. What might the two numbers be?  [**GA DOE Frameworks Unit 5**](https://www.georgiastandards.org/Georgia-Standards/Frameworks/1st-Math-Unit-5.pdf)  p. 29, Lots of Dots  p. 35, What Numbers Can You Make?  p. 40, I Spy Combinations - Addition  p. 41, Wheel Shop  p. 94, Culminating Task: Atlanta Zoo | **AKS**  5.OA.5: Relate counting to addition and subtraction | | **Vocabulary**  Addend  Fact family  Commutative property | | **Textbook Resources**  **Pearson**  **Lessons**  3.1  3.2  4.6 |
| **Teacher notes:**   * Provide students with ample opportunities to solve addition and subtraction sentences that draw on their strengths in skip counting. For example, adding 2 more is the same as counting on two more. * Allow students to use a variety of manipulatives and tools, such as 100s boards, number lines, and other technologies for solving addition and subtraction problems. | **ASSESSMENT**  (Select for this week)  [**Common Assessment**](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View) | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  composing  decomposing | | **Exemplar/**  **Problem Solving**  [Hands on Standards:](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_OA.pdf)  Connecting Addition and Subtraction  [Lesson 7](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_OAT_Stu.pdf) | |

**Arcado Math Frameworks 2nd Nine Weeks 2015-2016**

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| **2nd Nine Weeks : Week 1**  **Unit – 3- Sort, Compare, and Order-Time**  **I can statements**   * I can order objects by length. * I can order objects by shortest to longest and longest to shortest. * I can compare lengths of objects   **Technology Resources**  **Instructional Support**  [Guided math long/short](http://www.k-5mathteachingresources.com/support-files/which-is-longest.pdf)  [Snap cube make and sort](http://www.k-5mathteachingresources.com/support-files/scoop-and-order.pdf)  **Performance Based Task:**  [Ordering task](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md1_assessmenttask3.docx/445903180/1md1_assessmenttask3.docx)  **Student Practice:** [**Measuring game**](http://www.turtlediary.com/grade-1-games/math-games/length-measurement.html)[**Biggest/Smallest**](http://akidsheart.com/threer/lvl1/biggesta3.htm)  **Mega Math grade:**  **Shapes Ahoy; Made to Measure; Level C - Order Objects by Length**  [**GA DOE Frameworks Unit 4**](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435274/View)  p. 14, I Long is Your Name?  **Hands on Standards:**  Sorting by Length | **AKS**  22.MD.1: Order the length of three objects; compare the lengths of two objects by using direct comparison or a third object | **Vocabulary**  length  measure  unit  weight | | **Textbook Resources**  **Pearson**  **Lessons**  12.1  12.2 |
| **Exemplar/**  **Problem Solving**  [Wonderful Leaves](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/Math%20II/pdfs/task360.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) |
| **Teacher notes:** As children are exploring their environment draw their attention to the attributes of the objects they are playing with. For example, let's go and find …   * A long stick * A short piece of string * A heavy rock * A light bag * A short teddy * A full cup * An empty box   Extend children’s understanding by showing them what you mean before you ask them to find certain objects. -That's a heavy rock, you feel it. Can you find another heavy one?  -Laura's got an empty box. Can you find another empty one?  -Ask children to describe their thinking: How do you know that is a short one? Why do you think that is a heavy one? Why is that an empty one?  **Watch for**: Do children show their understanding of concepts such as long, heavy and empty by using these words appropriately in their play? | **ASSESSMENT**  (Select for this week) | | **Skills to Preview/Review:**  **(Calendar/**  **Number Talks)**  data  measurement  hundreds chart  addition strategies | |

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| **Quarter 2: Week 2 –**  **Unit – 3- Sort, Compare, and Order-Time**  **I can statements**   * **I can measure an object using nonstandard units.** * **I can use estimation and paper clips to measure the length of objects.**   **Technology Resources**  **Instructional Support:** [**Measuring sticks**](http://www.k-5mathteachingresources.com/support-files/measuring-with-sticks.pdf)[**Measuring Shoes**](http://www.k-5mathteachingresources.com/support-files/measuring-shoes.pdf)  **Performance Based Task:** [**Dominoe Task**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md2_assessmenttask1.docx/445903312/1md2_assessmenttask1.docx)  **Student Practice:** [**How tall?**](http://pbskids.org/curiousgeorge/games/how_tall/how_tall.html)  [**GA DOE Frameworks**](https://www.georgiastandards.org/Georgia-Standards/Frameworks/1st-Math-Unit-4.pdf) **Unit 4**  p. 26, How Big is a Foot?  p. 25, Groundhog’s Garden | **AKS**  23.MD.2: Estimate and measure an object using a non-standard unit smaller than the object being measured and express the length measured as a whole number of same-size units spanning the object without gaps or overlaps. | **Vocabulary**  length  measure  unit  weight | | **Textbook Resources**  **Pearson**  **Lessons**  12.3  12.4 |
| **Exemplar/**  **Problem Solving**  Hands on Standards:  [Nonstandard Units](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_MD.pdf)  Student pages  [Lesson 2](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_MD_Stu.pdf) |
| **Teacher notes:**  Use non-standard measuring tools (e.g., paper clips) to begin the inquiry into measurement. Students should understand that an object's length is determined by the number of measuring units (in this case paper clips) that stretch from end to end on the object that is being measured.  Allow students to work hands-on with rulers, drawing their attention to the whole number representation of the object used for measuring. Their experiences should extend beyond measuring lines on a piece of paper, and instead should extend to objects they encounter in their day-to-day experiences in the classroom and beyond.  Extend the experience to include exploration into the number of smaller objects that are necessary to make a larger object, reinforcing the part-whole relationship theme which is repeated quite often throughout mathematics. | **ASSESSMENT**  **Common**  **Assessment -**  Unit 3: Length | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  data  measurement  hundreds chart  clock addition/  subtraction strategies | |

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| **Quarter 2: Week 3 –**  **Unit – 3- Sort, Compare, and Order-Time**  **I can statements**   * I can recognize the hour hand and minute hand. * I can tell time to the hour and half-hour using a digital clock. * I can tell time to the hour and half­-hour using an analog clock. * I can write the time in hour and half-hours.   **Technology Resources**  **Instructional Support:**  [**Quick assessment**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1MD3_assessmenttask1.pdf/454224040/1MD3_assessmenttask1.pdf)[**Assessment 2**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md3_assessmenttask4.pdf/454224098/1md3_assessmenttask4.pdf)  **Student Practice:**  [**Time game**](http://www.primarygames.com/time/1a.htm)[**Set the clock**](http://www.bbc.co.uk/wales/snapdragon/yesflash/time-1.htm)  **GA DOE Frameworks**  **Unit 4**  p. 39, It’s Time, Part 1, Using a Number Line  p. 45, It’s Time, Part 2  p. 50, It’s Time, Part 3 | **AKS**  24.MD.3: Tell and write time to the nearest hour and half-hour using analog and digital clocks | **Vocabulary**  after  before  half hour  hour  hour hand  longer  minute  minute hand  o’clock  shorter | | **Textbook Resources**  **Pearson/enVision**  **Lessons**  13.1  13.2  13.3  13.4 |
| **Exemplar/**  **Problem Solving**  Hands on Standards:  [Time to the Half Hour](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_MD.pdf)  Student: [Lesson 3](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_MD_Stu.pdf) |
| **Teacher notes:** Students need lots of practice with telling time and in transferring their skills from an analog clock to a digital representation. The use of individual clocks with moving parts allows for students to have practice with the concrete experience of telling time. A lesson in moving the minute hand forward in time, and not backwards, is necessary for correct depiction of time on an analog clock.  Relate the telling of time to everyday activities within the classroom. Integrate this skill by surveying the class on times they go to bed, times they get up, times they arrive at school in order for this skill to be more meaningful to their everyday lives. Additionally, look for opportunities throughout the day to incorporate time and the length of activities.  The teacher can talk about and discuss with students, more specifically, 60 seconds in 1 minute, and 60 minutes in one hour, and 12 hours in the morning, 12 hours in the afternoon/evening, is easier for students to understand (they can see this actually happen on a clock). It is best to go smallest unit to largest unit, as the larger the unit, the more abstract for young children.  Use timers or hour-glasses to show the passage of time. Use technologies that allow students to match digital times to analog representations | **ASSESSMENT**  (Select for this week) | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  graphing  shapes  addition/subtraction strategies | |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 2: Week 4 –**  **Unit – 3- Sort, Compare, and Order-Time**  **I can statements**   * I can recognize the hour hand and minute hand. * I can tell time to the hour and half-hour using a digital clock. * I can tell time to the hour and half­-hour using an analog clock. * I can write the time in hour and half-hours.   **Technology Resources/Tips:**  **Instructional Support:**  [**Interactive Clock**](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/common/itools_int_9780547584997_/measurement.html)[**Quick assessment**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1MD3_assessmenttask1.pdf/454224040/1MD3_assessmenttask1.pdf)[**Assessment 2**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md3_assessmenttask4.pdf/454224098/1md3_assessmenttask4.pdf)  **Student Practice:**  [**Time game**](http://www.primarygames.com/time/1a.htm)[**Set the clock**](http://www.bbc.co.uk/wales/snapdragon/yesflash/time-1.htm)  **GA DOE Frameworks Unit 4**  p. 39, It’s Time, Part 1, Using a Number Line  p. 45, It’s Time, Part 2  p. 50, It’s Time, Part 3 | **AKS**  24.MD.3: Tell and write time to the nearest hour and half-hour using analog and digital clocks | **Vocabulary**  after  before  half hour  hour  hour hand  longer  minute  minute hand  o’clock  shorter | | **Textbook Resources**  **Pearson**  **Lessons**  13.1  13.2  13.3  13.4 |
| **Exemplar/**  **Problem Solving**  [Task card](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md3_assessmenttask9.docx/445903654/1md3_assessmenttask9.docx) |
| **Teacher notes:**   * How does the hour hand look different from the minute hand? Is this comparison true for the duration of time each hand represents? * Display 3 analog clocks showing 11:30, 1:30 and 12:30) Which clock shows half past 12 o’clock? Explain your thinking. * Why is 4:30 also known as half past 4? * You eat lunch between 11:00am and 1:00pm. What are some possible times you can eat? * What difference do you notice between the hour hands for 3:00 and 3:30? Why does it change? | **ASSESSMENT**  (Select for this week)  [**Common Assessment TIME**](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Gr1.Unit3.MD3.time.A.pdf?_&d2lSessionVal=VAvFwEvVJwNofEpUTAjGvHyY7&ou=58323) | | **Skills to Preview/Review:**  (Calendar/Number Talks)  graphing  clock  addition/subtraction strategies | |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 2: Week 5 –**  **Unit – 3- Sort, Compare, and Order-Time**  **I can statements**   * I can recognize the hour hand and minute hand. * I can tell time to the hour and half-hour using a digital clock. * I can tell time to the hour and half­-hour using an analog clock. * I can write the time in hour and half-hours.   **Technology Resources/Tips:**  **Instructional Support:**  [**Interactive Clock**](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/common/itools_int_9780547584997_/measurement.html)[**Quick assessment**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1MD3_assessmenttask1.pdf/454224040/1MD3_assessmenttask1.pdf)[**Assessment 2**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md3_assessmenttask4.pdf/454224098/1md3_assessmenttask4.pdf)  **Student Practice:**  [**Time game**](http://www.primarygames.com/time/1a.htm)[**Set the clock**](http://www.bbc.co.uk/wales/snapdragon/yesflash/time-1.htm)  **GA DOE Frameworks Unit 4**  p. 39, It’s Time, Part 1, Using a Number Line  p. 45, It’s Time, Part 2  p. 50, It’s Time, Part 3 | **AKS**  24.MD.3: Tell and write time to the nearest hour and half-hour using analog and digital clocks | **Vocabulary**  after  before  half hour  hour  hour hand  longer  minute  minute hand  o’clock  shorter | | **Textbook Resources**  **Pearson**  **Lessons**  13.1  13.2  13.3  13.4 |
| **Exemplar/**  **Problem Solving**  [Task card](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md3_assessmenttask9.docx/445903654/1md3_assessmenttask9.docx) |
| **Teacher notes:** A Suggested Approach for Teaching Students to Read an Analog Clock (Van De Walle, K-3, p 244)  Begin with a one-handed clock. A clock with only an hour hand can be read with reasonable accuracy. Use lots of approximate language: "It's about 7 o'clock." "It's a little past 9 o'clock." "It's halfway between 2 o'clock and 3 o'clock."  Discuss what happens to the hour hand as the minute hand goes from one hour to the next. When the minute hand is at 12, the hour hand is pointing exactly to a number. If the hour hand is about halfway between numbers, about where would the minute hand be?  Use two real clocks, one with only an hour hand and one with the minute and hour hands. (Break off the minute hand from an old clock.) Cover the two handed clock. Periodically during the day, direct attention to the one handed clock. Discuss the time in approximate language. Have students predict where the minute hand should be. Uncover the two handed clock and check. | **ASSESSMENT**  (Select for this week)  [**Common Assessment TIME**](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Gr1.Unit3.MD3.time.B.pdf?_&d2lSessionVal=VAvFwEvVJwNofEpUTAjGvHyY7&ou=58323) | | **Skills to Preview/Review:**  (Calendar/Number Talks)  graphing  clock  addition/subtraction strategies | |

**Arcado Math Frameworks 2nd Nine Weeks 2015-2016**

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| **2nd Nine Weeks: Week 6**  **Unit – 3- Sort, Compare, and Order-Time**  **I can statements**   * I can organize data with up to three categories. * I can interpret a graph by asking questions about the data. * I can interpret a graph by answering questions about the data. * I can interpret a graph by comparing how many more are in one category than another. * I can interpret a graph by comparing how many less are in one category than another.   **Technology Resources**  **Performance Based Task:**  [**Comparing Heights**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L701)[**How many steps**](http://illuminations.nctm.org/LessonDetail.aspx?id=L187)**?** [**Farmer Brown**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md4_assessmenttask1.docx/445903700/1md4_assessmenttask1.docx)  **GA DOE Frameworks Unit 4**  p. 60, Measurement Olympics  p. 53, Time for Bed | **AKS**  **25.MD.4:** Organize, represent, interpret data with up to three categories using tables, tally charts, picture graphs, and bar graphs  **26.MD.4:** Ask and answer questions about represented data by comparing data in each category and finding the total number of data points | **Vocabulary**  one less  one more  plus  separating  subtraction  sum  graph  table  picture graph  tally mark  bar graph  tally chart | | **Textbook Resources**  **Pearson**  **Lessons**  14.3  14.4 |
| **Exemplar/**  **Problem Solving**  Hands on Standards:  [Pictographs](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_MD.pdf)  Student pages  [Lesson 5](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_MD.pdf) |
| **Teacher notes:** Provide a variety of opportunities for students to categorize objects or other data sets in order to create data representations in the world around them. Such activities might include sorting shoes, personal attributes (e.g., hair color, eye color, boys and girls), ways they get to school, favorite color. Once the sets have been determined, guiding students to participate in displaying the information in a list is helpful. For example, "There are 5 students who go to bed after 9 PM, 13 students who go to bed between 8 PM and 9 PM, and 7 students who go to bed before 8 PM".  Have students sort candy by color, then look at another student's data and decide which color was the most frequent, least frequent, and so on.  Have students count how many students have each hair color. Then use this data to determine how many students there are in total, and how many more students have brown hair than blonde hair, etc | **ASSESSMENT**  (Select for this week) | | **Skills to Preview/Review:**  **(Calendar/**  **Number Talks)**  graphing  tens and ones addition/subtraction strategies | |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 2: Week 7 –**  **Unit – 3- Sort, Compare, and Order-Time**  **I can statements**   * I can organize data with up to three categories. * I can interpret a graph by asking questions about the data. * I can interpret a graph by answering questions about the data. * I can interpret a graph by comparing how many more are in one category than another. * I can interpret a graph by comparing how many less are in one category than another.   **Technology Resources**  **Performance Based Task:**  [**Comparing Heights**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L701)[**How many steps?**](http://illuminations.nctm.org/LessonDetail.aspx?id=L187)  **GA DOE Frameworks Unit 4**  p. 60, Measurement Olympics  p. 53, Time for Bed | **AKS**  **25.MD.4:** Organize, represent, interpret data with up to three categories using tables, tally charts, picture graphs, and bar graphs  **26.MD.4**: Ask and answer questions about represented data by comparing data in each category and finding the total number of data points | **Vocabulary**  one less  one more  plus  separating  subtraction  sum  graph  table  picture graph  tally mark  bar graph  tally chart | | **Textbook Resources**  **Pearson**  **Lessons**  14.3  14.4 |
| **Exemplar/**  **Problem Solving**  [Class Survey](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1md4_assessmenttask2.docx/445903728/1md4_assessmenttask2.docx) |
| **Teacher notes:** How could you sort a group of toys (stuffed animals, balls, and trains) and make a graph to show how many toys are in the different groups?  Think about a question you might ask your classmates to which there are three possible answers. Conduct a survey and then graph the results by using either a pictograph or a bar graph.  Consider the following data:   |  |  |  |  | | --- | --- | --- | --- | | Favorite Ice Cream Flavor | Number of students |  | Should the class use a bar graph or a picture graph to show this data? Why? | | Vanilla | 12 |  | | Chocolate | 9 |  | | Strawberry | 3 |  | | **ASSESSMENT**  (Select for this week)  **TOTD - #**13  **OR**  **Common**  **Assessment -**  **Unit 3: Data (or you could choose to give next week)** | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  graphing  tens and ones comparing 2 numbers addition/  subtraction strategies | |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 2: Week 8–**  **Unit – 3- Sort, Compare, and Order-Time**  **I can statements**   * I can organize data with up to three categories. * I can interpret a graph by asking questions about the data. * I can interpret a graph by answering questions about the data. * I can interpret a graph by comparing how many more are in one category than another. * I can interpret a graph by comparing how many less are in one category than another.   **Technology Resources**  **Performance Based Task:**  [**Comparing heights**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L701)[**How many steps**](http://illuminations.nctm.org/LessonDetail.aspx?id=L187)  \*\*This week is also last week before winter break. We will be completing mid-year assessments and also various winter activities. \*\*  **GA DOE Frameworks Unit 4**  p. 60, Measurement Olympics  p. 53, Time for Bed | **AKS**  **25.MD.4**: Organize, represent, interpret data with up to three categories using tables, tally charts, picture graphs, and bar graphs  **26.MD.4:** Ask and answer questions about represented data by comparing data in each category and finding the total number of data points | **Vocabulary**  one less  one more  plus  separating  subtraction  sum  graph  table  picture graph  tally mark  bar graph  tally chart | | **Textbook Resources**  **Pearson**  **Lessons**  14.3  14.4 |
| **Exemplar/**  **Problem Solving**  Mid-Year Exemplar  [Farmer Brown](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/Math%20II/pdfs/task315.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) |
| **Teacher notes:** **Journal Prompts:**  * Decide on a yes/no question that you would like to collect data on. Ask 8 children your question and record their answers. What did you find out? * Take a scoop of pattern blocks and sort them. Use pictures, numbers and/or words to show how you sorted them. | **ASSESSMENT**  (Select for this week)  **Common**  **Assessment -**  **Unit 3: Data** | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  graphing  tens and ones comparing 2 numbers addition/subtraction strategies | |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **2nd Nine Weeks – Week 9**  **Unit – 5- Understanding place Value**  **I can statements**   * **I can model and explain two-digit numbers using tens and ones.**   **Technology Resources**  **Performance Based Task:** [**Number Activities**](http://www.k-5mathteachingresources.com/1st-grade-number-activities.html)  **Student Practice:** [**Grouping and Counting**](http://illuminations.nctm.org/ActivityDetail.aspx?ID=218)[**Fruit Shoot Place Value**](http://www.sheppardsoftware.com/mathgames/placevalue/fruit_shoot_place_value.htm)  **GA DOE Frameworks**  **Unit 6**  p. 14, Pony Bead Place Value  p. 20, Place Value Cover Up  p. 34, King’s Counting Crew | **AKS**  12.NBT.2: Model and explain two-digit number represents amounts as tens and ones | **Vocabulary**  demonstrate  digit  hundreds  numbers  numbers to 100  ones  place value  tens | **Textbook Resources**  **Pearson**  **Lessons**  7.1  7.3  8.1  8.2  8.3  8.4  8.5  8.6 |
| **Teacher notes:**   * Provide opportunities for students to work with decomposing two-digit numbers in order to see the value of each digit. For instance, 14 is decomposed as one ten (or one bundle of 10 ones) and 4 ones. * Provide students with opportunities to use manipulatives and technologies which allow students to physically make bundles of tens. This helps with moving an abstract concept into more concrete terms. * Provide students with problems/opportunities to think of the number 10 as ten ones and a ten, and of the numbers 11, ..., 19 as whole numbers after 10 (e.g., 11 ones) and as a ten and a certain number of ones (e.g., one ten and 1 one). * Provide students with problems/opportunities to think of and verbalize the numbers 10, 20, ..., 90 as a certain number of tens and zero ones. | **ASSESSMENT**  (Select for this week) | **Exemplar/**  **Problem Solving**  [Number Blocks](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math_3/pdfs/task522.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  graphing  tens and ones  comparing 2 numbers |

**Arcado Math Frameworks 3rd Nine Weeks 2015-2016**

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| **3rd Nine Weeks Week 1 –**  **Unit - 5- Understanding place Value**  **I can statements**   * **I can model and explain two-digit numbers using tens and ones** * **I can put objects in a bundle.**   **Technology Resources**  **Performance Based Task:** [**Number Activities**](http://www.k-5mathteachingresources.com/1st-grade-number-activities.html)  **Student Practice:** [**Grouping and Counting**](http://illuminations.nctm.org/ActivityDetail.aspx?ID=218)[**Fruit Shoot Place Value**](http://www.sheppardsoftware.com/mathgames/placevalue/fruit_shoot_place_value.htm)  **GA DOE Frameworks**  **Unit 6**  p. 14, Pony Bead Place Value  p. 20, Place Value Cover Up  p. 34, King’s Counting Crew | **AKS**  12.NBT.2: Model and explain two-digit numbers represents amounts of tens and ones  13.NBT.2: Explain that 10 can be thought of as a bundle of ten ones called a “ten” | **Vocabulary**  Demonstrate  Digit  Hundreds  Numbers  Numbers to 100  Ones  place value  tens | **Textbook Resources**  **Pearson**  **Lessons**  7.1  7.3  8.1  8.2  8.3  8.4  8.5  8.6 |
| **Teacher notes:**   * How many different ways can you represent 82 using tens and ones? * Does 4 tens and 8 ones have the same value as 3 tens and 18 ones? Explain your thinking. * Do 2 tens and 6 ones have the same value as 2 ones and 6 tens? Use models and/or hundreds chart to help explain your answer. * A two-digit number has more tens than ones. What could the number be? What is another possibility? * The sum of the digits of a two-digit number is12. Use a hundred chart, what could the number be? What is another possibility? * How are the numbers 30 and 35 alike? How are they different? * Kendra made a two-digit number with a 6 in the ones place. What possible numbers could she have made? | **ASSESSMENT**  (Select for this week)  **TOTD - #**23  **Common**  **Assessment - \_\_\_\_** | **Exemplar/**  **Problem Solving**  Hands On  Lesson 1: Exploring Place Value  Lesson 3: Ordering Number | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  comparing two numbers  adding numbers within 100  mental math strategies |

**Arcado Math Frameworks 3rd Nine Weeks 2015-2016**

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| **Quarter 3: Week 1 –**  **GCPS Unit 4 Number and Operations in Base Ten**  **I can statements**   * I can solve word problems by adding and subtracting within 20.   **Technology Resources**  **Instructional Support:**  **Student Practice:** [**http://illuminations.nctm.org/LessonDetail.aspx?ID=L117**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L117)    **GA DOE Frameworks**  **Unit 5**  p. 22, Developing Meaning by using Story Problems: Result Unknown  p. 41, Wheel Shop  **Differentiation:** Don't let computation concerns interfere with students exposure to problems. Students can be given fact charts, number lines, hundred charts, or calculators to support computational skills. Problems can be differentiated by giving students number sets to choose from when solving problems.  \*\*Addition Strategies can be reviewed and discussed while solving word problems.\*\* | **AKS**  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)\*\* | | **Vocabulary**  Add  Addend  Addition sentence  Count back  count forward  count on  difference  fewer than  minus  more than  plus  subtract  subtraction sentence | | **Textbook Resources**  **Pearson**  **Lessons**  1.1-1.8  2.4-2.8  2.11  4.10  5.4  6.7 |
| **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_NBT.pdf):  There are a lot of lessons on strategies to add/subtract.  [Lessons 4-7](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_NO_Stu.pdf) |
| **Teacher notes:** Collaborate in small groups to develop problem-solving strategies using a variety of models such as drawings, words, and equations with symbols for the unknown numbers to find the solutions. Additionally students need the opportunity to explain, write, and reflect on their problem-solving strategies. [The situations](http://www2.hcpss.org/math/ElementaryMath/cceguides/CCproblemsituations.pdf) for the addition and subtraction story problems should involve sums and differences less than or equal to 20 using the numbers 0 to 20. Students need the opportunity of writing and solving story problems involving three addends with a sum that is less than or equal to 20. For example, each student writes or draws a problem in which three whole things are being combined. The students exchange their problems with other students, solving them individually and then discussing their models and solution strategies. Now both students work together to solve each problem using a different strategy. CENTER ACTIVITY: Students can write their problems at a center. -or- Students can write their problems on note cards and leave them at a center for other students to solve at a later date. Literature is a wonderful way to incorporate problem-solving in a context that young students can understand. ANY book can be used as a context for a problem. This allows teachers to integrate any topic into mathematics class. As the teacher reads the story, students use a variety of manipulatives, drawings, or equations to model and find the solution to problems from the story. | | **ASSESSMENT**  (Select for this week) | | **Skills to Preview/Review:**  (**Calendar/**  **Number Talks)**  word problems addition/  subtraction strategies | |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 3: Week 2 –**  **Unit – 4- Addition Strategies**  **I can statements**   * **I can solve word problems by adding and subtracting within 20.**   **Technology Resources**  **Instructional Support:**  [**Word problem task cards**](http://www.k-5mathteachingresources.com/support-files/add-and-subtract-to-20.pdf)  **Student Practice:**  [**http://illuminations.nctm.org/LessonDetail.aspx?ID=L117**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L117)    **GA DOE Frameworks**  **Unit 5**  p. 22, Developing Meaning by using Story Problems: Result Unknown  p. 41, Wheel Shop | **AKS**  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)\*\* | **Vocabulary**  Add  Addend  Addition sentence  Count back  count forward  count on  difference  fewer than  minus  more than  plus  subtract  subtraction sentence | **Textbook Resources**  **Pearson**  **Lessons**  1.1-1.8  2.4-2.8  2.11  4.10  5.4  6.7 |
| **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_NBT.pdf):  There are a lot of lessons on strategies to add/subtract.  [Lessons 4-7](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_NO_Stu.pdf) |
| **Teacher notes:**  **-** Addition is understood to mean “putting together” and “adding to”.  - Subtraction is understood as “taking apart” and “taking from”.  - A symbol can be used for an unknown number in an equation.  - Students need continuing practice with drawings and equations to solve word problems. Questions to focus instruction:  - How can students use drawings to represent a word problem?  - How can students use equations – with a symbol for the unknown number to represent a word problem? | **ASSESSMENT**  (Select for this week)  **TOTD - #**14  **Other -** Exemplar:  Buttons for Snowmen | **STEAM Connections** | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  word problems addition/subtraction strategies |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 3: Week 3 –**  **Unit – 4- Addition Strategies**  **I can statements**   * **I can solve word problems by adding 3 numbers.**   **Technology Resources**  **Performance Based Task:** [**Wrap Up Lesson**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L102)  **Student Practice:** [**Mission Addition**](http://www.turtlediary.com/grade-1-games/math-games/mission-addition.html)  **GA DOE Frameworks**  **Unit 5**  p. 41, Wheel Shop  **Hands on Standards**  Lesson 3: Adding Three Numbers | **AKS**  2.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) | **Vocabulary**  Add  In all  Sum  Altogether  Plus  Combine | | **Textbook Resources**  **Pearson/enVision**  **Lessons**  5.9 |
| **Exemplar/**  **Problem Solving**  [Dinosaur Models](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math_3/pdfs/task516.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) |
| **Teacher notes:**   * Students need practice with a variety of strategies that will allow them to group addends many different ways to make the addition process easier. For instance, students should be guided to look for places where they can "make 10" before adding. * When students are comfortable with adding three addends, begin to introduce an unknown portion in the numeric sentence. From here, students can use their knowledge of related addition and subtraction facts to solve for the unknown portion. * The use of manipulatives, pictures, models, and technologies should be incorporated into the learning experience for greater understanding. * Provide students with multiple opportunities to discuss their reasoning for the method they chose for their problem-solving. | **ASSESSMENT**  (Select for this week)  **TOTD - #**15  **Common**  **Assessment - \_\_\_\_** | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Adding 3 numbers  Word problems | |

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| **Quarter 3: Week 4**  **Unit – 4- Addition and Subtraction Strategies**  **I can statements**   * **I can model equivalent numbers or set.** * **I can determine if the sets are equal.** * **I can model and explain what the equal sign is for.**   **Technology Resources**  **Instructional Support:**  [**Finding balance**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L106)  **Performance Based Task:** [**Equations-True-or-False**](http://www.sharemylesson.com/teaching-resource/Equations-True-or-False-50009749/)  [**Equal Sums**](http://www.k-5mathteachingresources.com/support-files/equal-sums.pdf)  **Student Practice:**  [**Balancing discoveries**](http://illuminations.nctm.org/LessonDetail.aspx?ID=L55)  **GA DOE Frameworks**  **Unit 5**  p. 69, Shape Pounds  p. 74, Whose Sum is Larger? | **AKS**  7.OA.7: Model and determine equivalence of equations including those involving addition and subtraction | **Vocabulary**  About  Compare  Comparing  Equal to =  Equivalent  Greater than >  Less than<  Fewer than  Fewest  Least  More than | **Textbook Resources**  **Pearson**  **Lessons**  2.10 |
| **Exemplar/**  **Problem Solving** |
| **Teacher notes:**   * Students need early exposure to the phrasing “the same as” when they are dealing with number problems that contain the equals sign. * The use of models, drawings and manipulatives is especially useful in helping students to visually see that the quantity on the left side of the equal sign is the same as the quantity on the right side. False equations should be presented to students to identify, as well. For example, 6 + 0 = 6 +1. * The concept of a balance or a see-saw is a visual tool that assists students in understanding that the amounts on either side must be the same | **ASSESSMENT**  (Select for this week)  **TOTD - #**19  **Common**  **Assessment - \_\_\_\_**  **DDA - \_\_\_\_\_**  **Other - \_\_\_\_\_** | **STEAM Connections** | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Addition  Subtraction strategies |

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| **Quarter 3: Week 5–**  **Unit – 4- Addition and Subtraction Strategies**  **I can statements**   * I can solve a problem if there is an unknown number in the problem.   **Technology Resources**  **Student Practice:** [**Mission Addition**](http://www.turtlediary.com/grade-1-games/math-games/mission-addition.html) [**Addend Arrest**](http://www.fuelthebrain.com/games/addend-arrest/)  **GA DOE Frameworks**  **Unit 5**  p. 69, Shape Pounds  p. 92, Culminating Task: Atlanta Zoo | **AKS**  9.OA.8: Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers by using symbols (e.g., determine the unknown number that makes the equation true in each of the equations 8+?=; 5=?-3; 6+6=?) | **Vocabulary**  Add  Addition  Addend  Combine  Difference  Equivalent  In all  Separating | **Textbook Resources**  **Pearson**  **Lessons**  6.6 |
| **Exemplar/**  **Problem Solving**  Exemplar:  [Six Pack of Soda](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math/pdfs/task39.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) |
| **Teacher notes:**   * Fact families are a wonderful strategy in helping students to relate addition and subtraction to one another. Additionally, teachers should guide students to the understanding that if a student knows that 2 + 3 = 5, then they can use that knowledge to solve 5 = ? + 2. * Helping students to master the process of using subtraction to find the missing addend as well as using addition to find the missing portion in a subtraction problem will assist in students’ ability to fluently solve these problems. * The use of manipulatives, technologies, models, and drawings can aid in helping students to visualize the unknown portion in an algebraic problem. | **ASSESSMENT**  (Select for this week)  **TOTD - #**20  **Common**  **Assessment - \_\_\_\_**  **DDA - \_\_\_\_\_**  **Other - \_\_\_\_\_** | **STEAM Connections** | **Skills to Preview/Review:**  **(Calendar/Number Talks**)  graphing |

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| **Quarter 3: Week 6 –**  **Unit – 5- Understanding place Value**  **I can statements**   * **I can record composing and decomposing numbers using drawings.**   **Technology Resources**  **Instructional Support:  [Turn around dominoes](http://www.k-5mathteachingresources.com/support-files/turn-around-dominoes.pdf)**    **Performance Based Task:**  [**Task OA3**](http://commoncoretasks.wikispaces.com/file/view/SF_1+OA+Task+2b.doc)  **Journal prompt**  **GA DOE Frameworks**  **Unit 5**  p. 29, Lots of Dots  p. 35, What Numbers Can You Make? | **AKS**  3. OA.3: Explore and apply properties of operations as strategies to add and subtract (e.g., 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). *Students do not use formal terms for these properties. Problems should be within 20.* | **Vocabulary**  Combine  Different  Separate  Commutative property | **Textbook Resources**  **Pearson**  **Lessons**  1.7  4.1  5.8 |
| **Exemplar/**  **Problem Solving**  **[Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_OA.pdf)**  **[Gr. 1(OAT)](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_OA.pdf)**  Lesson 4: Associative Property  Lesson 5: Commutative Property I  Lesson 6: Commutative Property II  [Student pages](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_OAT_Stu.pdf) |
| **Questions to Focus Instruction:**   * Can students reason that addition and subtraction are relational, in that there are “families” of facts? * Can students employ a variety of strategies to find sums and differences? * Can students communicate the reasoning behind the strategies they used in computing sums and differences? * Are students able to show with visuals and concrete models the processes in their computation using the properties? | **ASSESSMENT**  (Select for this week)  **TOTD - #**22  **Common**  **Assessment - \_\_\_\_** | **STEAM Connections** | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  word problems |

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| **Quarter 3: Week 7 –**  **Unit – 5- Place Value - Comparing**  **I can statements**   * I can add numbers within 100. * I can use mental math strategies. * I can look at two sets of numbers and compare them by using symbols.   ***Technology Resources***  ***Performance Based Task:*** [***Number Activities***](http://www.k-5mathteachingresources.com/1st-grade-number-activities.html)  ***Student Practice:*** [***Grouping and Counting***](http://illuminations.nctm.org/ActivityDetail.aspx?ID=218)  [***Fruit Shoot Place Value***](http://www.sheppardsoftware.com/mathgames/placevalue/fruit_shoot_place_value.htm)  ***GA DOE Frameworks***  ***Unit 6***  *p. 14, Pony Bead Place Value*  *p. 20, Place Value Cover Up*  *p. 34, King’s Counting Crew* | **AKS**  14.NBT.2: Model the numbers 11 to 19 showing they are composed of a ten and one, two, three, four, five, six, seven, eight, or nine one  15.NBT.2: Explain that the numbers 10, 20, 30, 40, 50 , 60, 70, 80, and 90 refer to one, two, three, four, five, six, seven, eight, or nine tens and 0 ones  16.NBT.3:Compare two two-digit numbers using the terms/symbols to include greater than, less than, and equal to (>,<,=) | **Vocabulary**  Add  Addition  Combine  Commutative property  Count  Count strategy  Demonstrate  Doubles  Doubles plus one  Numeral  Plus  Sum | **Textbook Resources**  **Pearson/enVision**  **Lessons**  7.1  7.3  8.1  8.2  8.3  8.4  8.5  8.6 |
| **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_NBT.pdf)  Exploring Place Value  [Lesson 1](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_NBT.pdf) |
| ***Teacher notes:*** **Journal Prompts:**Mario used 6 base ten blocks to make a number. What numbers could he have made? Explain you answer. Draw a picture to match.How many different ways can you show the number 43 using base 10 blocks? Use pictures, number and words to show your thinking.Choose a number that is greater than 10 but less than 100. Represent that number using sticks of 10 unifix cubes and single cubes. Record your thinking. Select another number and repeat.Choose a number that is greater than 10 but less than 100. Represent that number using base 10 blocks. Record your thinking. Select another number and repeat. | ***ASSESSMENT***  *(Select for this week)*  ***TOTD - #****24*  ***Common***  ***Assessment - \_\_\_\_***  ***DDA - \_\_\_\_\_***  ***Other - \_\_\_\_\_*** | **STEAM Connections** | **Skills to Preview/Review:**  (Calendar/Number Talks)  120’s chart  Graphing |

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| **Quarter 3: Week 8 –**  **Unit - 5- Place Value - Comparing**  **I can statements**   * I can use drawings or models to adding and subtracting are related. * I can use models to add two-digit numbers.   **Technology Resources**  **Performance Based Task:** [**1st grade Number Activities**](http://www.k-5mathteachingresources.com/1st-grade-number-activities.html)  **Student Practice:** [**Add 10**](http://www.ictgames.com/add10Depth/index.html#HELP)  **GA DOE Frameworks**  **Unit 6**  p. 21, Building Towers of Ten  p. 34, King’s Counting Crew  p. 52, Hopping Around  p. 58, Fishy Math  p. 65, Monkeys at the Zoo  p. 87, What’s the Value of Your Name? | **AKS**  17.NBT.4: Add numbers within 100 using concrete models, drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction  18.NBT.4: Use concrete models to add two-digit numbers by adding tens to tens, ones to ones and explain why it is sometimes necessary to compose a ten | **Vocabulary**  Add  Addition  Combine  Commutative property  Count  Count strategy  Demonstrate  Doubles  Doubles plus one  Numeral  Plus  Sum | **Textbook Resources**  **Pearson/enVision**  **Lessons**  9.2  10.1  10.2  10.3  10.4  10.5  10.6 |
| **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_NBT.pdf)  Adding without regrouping  [Lesson 4](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_NO_Stu.pdf) |
| **Teacher notes:**  Anna scored 18 points in 3 games. What might her scores have been for each of the games?  Juan added three numbers to get 14. What could the three numbers be?  The sum of a two-digit number and a one digit number is 43? What might the numbers be?  Have students randomly pick a two-digit number from the hundred chart. Then roll a ten-sided die to find a digit to add to the number. What strategies are you using when you are adding? For example, in 48 + 7 = , students might say “I broke the 7 into 2 and 5 because I know 8 + 2 is 10 and so 48 and 2 is 50 and 5 more is 55?  Create some number sentences with the students and record three on the board. For example, 38 + 10 = 48, 24 + 30 = 54, 57 + 40 = 97. Ask "What patterns do you see?"  Use a 100 chart. Choose two numbers between 11 and 50 to add. Show how to use the chart to add the numbers without using pencil or paper.  Use six of the digits 1-9 (without repeating digits) to form 2 two-digit numbers with a two-digit sum that is true. (for example: 64 + 15 = 79) Can you think of another example? | **ASSESSMENT**  (Select for this week)  **TOTD - #\_\_\_\_**  **Common**  **Assessment -**  [Place Value NBT 2 & 3](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View)  **DDA - \_\_\_\_\_**  **Other - \_\_\_\_\_** | **STEAM Connections** | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  120’s chart  Graphing |

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| **Quarter 3: Week 9–**  **Unit - 5- Place Value - Comparing**  **I can statements**   * I can use the 100’s chart to subtract multiples of 10 from multiples of ten.   **Technology Resources**  **Performance Based Task:** [**1st Grade Number Activities**](http://www.k-5mathteachingresources.com/1st-grade-number-activities.html)  **Student Practice:** [**Adding and Subtracting Tens**](http://www.brainpopjr.com/math/additionandsubtraction/addingandsubtractingtens/grownups.weml)  **GA DOE Frameworks**  **Unit 6**  p. 78, Different Paths, Same Destination  p. 83, Number Destinations | **AKS**  20.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 | **Vocabulary**  Demonstrate  Digit  Hundreds  Numbers  Numbers to 100  Ones  Place value  Tens | **Textbook Resources**  **Pearson**  **Lessons**  11.1  11.2  11.3  11.4  11.5  11.6 |
| **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_NBT.pdf)  Subtracting a multiple of 10  [Lesson 7](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_NBT.pdf) |
| **Teacher notes:**  Starting at 90, count backwards by tens, will you land on 33? How do you know?  What number on the hundred chart could you start with and count backwards by ten to land on 33?  Show multiple representations for the subtraction problem 90 - 40 =. (hundred chart, open number line, base ten blocks, etc.)  What patterns do you see in these equations: 30 - 10 = 20, 90 - 30 = 60, 50 - 40 = 10  Start with a two-digit multiple of 10 such as 80. Build 80 with base ten blocks (specifically ten rods). Roll a die and subtract that many tens from the 80. How many tens (and what value) do you have left? How many more tens do you need to subtract to get to 0? Enrichment: Use any two-digit number. For example, build 73 and subtract groups of ten. | **ASSESSMENT**  (Select for this week)  **[Common](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View)**  **[Assessment](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View) -** Unit 5: Place Value | **STEAM Connections** | **Skills to Preview/Review:**  (Calendar/Number Talks)  graphing  composing and decomposing numbers |

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| **Quarter 4: Week 1 –**  **Unit 5 Shapes and Fractions**  **I can statements**   * I can we count up to 20 objects in a set. * I can distinguish between attributes that define the shape and attributes that do not define the shape. * I can use attributes to build shapes. * I can use attributes to draw shapes.   **GA Frameworks**  **Unit 3**  p. 14, Circus Trip  p. 17, What are Attributes?  p. 24, Which One Doesn’t Belong?  **Technology Resources**  [Geometry Task 1](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1g1a_assessmenttask1.docx/445902884/1g1a_assessmenttask1.docx)  [Geometry Task 3](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1g1_assessmenttask1.docx/445902840/1g1_assessmenttask1.docx) | **AKS**  **10. NBT.1**: Count, read, write and order numerals within 120 regardless of beginning number  **27.G.1:** Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes | **Vocabulary**  add  addition  combine  count  counting strategy  numeral  separating  sum  contrast  corner  hexagon  pentagon  shape  side | **Textbook Resources**  **Pearson/enVision**  **Lessons**  15.1  15.3  15.6  15.7  15.8  15.10 |
| **Teacher notes:** Use 20 toothpicks to make three shapes. None of the shapes can use the same number of toothpicks. Describe your shapes.   * What is the relationship between a square and a rectangle? Is a square always a rectangle? Is a rectangle always a square? * Student reaches into a bag and feels the hidden three-dimensional shape. Student describes the hidden shape using defining attributes. * I am a three-dimensional shape. I have two circle faces and one curved surface, what shape am I? * Display a cube and a rectangular prism. How are they alike and how are they different? Create a picture using less than 15 pattern blocks. Record your picture and the number of each shape used. | **ASSESSMENT**  (Select for this week) | **Skills to Preview/Review:**  (Calendar/Number Talks)   * hundreds chart * hundreds chart * one more * one less   shapes | **Exemplar/**  **Problem Solving**  [Happy Birthday Abby!](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/Math%20II/pdfs/task318.pdf?_&d2lSessionVal=NgHadgVc1LZeGNH9ZLRzGyA5X&ou=58323) |

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| **Quarter 4: Week 2 –**  **Unit 5- Shapes and Fractions**  **I can statements**   * I can we count up to 20 objects in a set. * I can distinguish between attributes that define the shape and attributes that do not define the shape. * I can use attributes to build shapes. * I can use attributes to draw shapes.   **Technology Resources**  **Instructional Support:** [**Teaching Points**](http://www.nzmaths.co.nz/general-interaction-ideas-shape)  **Performance Based Task:** [**What-shape-is-it?**](http://www.sharemylesson.com/teaching-resource/What-shape-is-it-3007419/)  **Student Practice:** [**Shape Sort**](http://www.sheppardsoftware.com/mathgames/earlymath/shapes_shoot.htm) | **AKS**  10. NBT.1: Count, read, write and order numerals within 120 regardless of beginning number  27.G.1: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes | **Vocabulary**  add  addition  combine  count  counting strategy  numeral  separating  sum  contrast  corner  hexagon  pentagon  shape  side | **Textbook Resources**  **Pearson**  **Lessons**  15.1  15.3  15.6  15.7  15.8  15.10 |
| **Exemplar/**  **Problem Solving**  Hands on Standards:  [Building Shapes](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_G.pdf)  Lesson 2  [Student Pages](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_GEO_Stu.pdf) |
| **Teacher notes:**  Attributes refer to any characteristic of a shape. Students use attribute language to describe a given two-dimensional shape: number of sides, number of vertices/points, straight sides, closed. A child might describe a triangle as “right side up” or “red.” These attributes are not defining because they are not relevant to whether a shape is a triangle or not. Students should articulate ideas such as, “A triangle is a triangle because it has three straight sides and is closed.” It is important that students are exposed to both regular and irregular shapes so that they can communicate defining attributes. Students should use attribute language to describe why these shapes are not triangles. | **ASSESSMENT**  (Select for this week) | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Hundreds chart  3-D Shapes |

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| **Quarter 4 Week 3**  **Unit 5 Shapes and Fractions**  **I can statements**   * I can compose a 2-D or 3-D shape to form a new shape. * I can create new shapes by combining already made shapes. * I can create new shapes by cutting apart already made shapes.   **Technology Resources**  **Instructional Support:** [**Shape Units**](http://www.nzmaths.co.nz/shape-units-work)  **Performance Based Task:** [**Shapes In Shapes**](http://www.education.com/slideshow/ship-shape-build-pre-geometry-skills/how-many-sides/#shapes-in-shapes)  **Student Practice:** [**Tanagrams**](http://www.apples4theteacher.com/chinese-tangrams.html) | **AKS**  **28.G.2**: Compose 2-D shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or 3-D shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape and to compose new shapes from the composite shape  **31.T.G.1\*:** Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as the above, below, beside, in front of, behind, and next to | **Vocabulary**  cone  cube  cylinder  plane figure  rectangular prism  solid figure  sphere | **Textbook Resources**  **Pearson/enVision**  **Lessons**  15.2  15.4  15.5  15.9 |
| **GA Frameworks**  **Unit 3**  p. 29, Build a Shape  p. 33, Partitioning All Around my Shapes  p. 43, Day at the Museum  p. 47, Shape Detective |
| **Teacher notes:**   * Students should have ample experience with manipulatives and technologies that will allow them to create two and three-dimensional shapes. For example, use tangrams and pattern block puzzles. * The concepts of halves and quarters are introduced and can be done so with manipulatives that show a circle segmented into pieces other than its whole. * Students should have experience composing a shape with previously composed shapes. For example, two quarter circles together form a half circle, and then two half circles made in this fashion can be composed to form a whole circle. | **ASSESSMENT**  (Select for this week)  **Common**  **Assessment - [Geometry](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View)**    Exemplar: Picking Up Shapes | **Hands on Standards**  **Gr. 1 (G)** Lesson 1: Combining Shapes Lesson 2: Building Shapes Lesson 3: Tangram Puzzles | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Hundreds chart  Fractions |

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| **Quarter 4 Week 4**  **Unit 5 Shapes and Fractions**  **I can statements**   * I can describe the whole as the number of parts needed to make the whole. * I can identify and model ½ and ¼ of circles and rectangles. * I can use manipulatives to show ½ of a circle or rectangle. * I can use manipulatives to show ¼ of a circle or rectangle. * I can explain that equal parts ( 2 of, or 4 of) make a whole.   **Technology Resources**  **Instructional Support:**  [**Shape Shoot**](http://www.sheppardsoftware.com/mathgames/earlymath/shapes_shoot.htm)  **Student Practice:** [**Halves Forths**](http://www.ixl.com/math/grade-1/halves-thirds-and-fourths)[**Simple Fractions**](http://www.ixl.com/math/grade-1/simple-fractions-what-fraction-does-the-shape-show)[**Fraction Models**](http://www.ixl.com/math/grade-1/fraction-models-equivalent-to-whole-numbers)  **GA DOE Frameworks**  **Unit 3**  p. 51, Fractions are Easy as Pie  p. 57, I Want Half  p. 60, Half, Not Half  p. 65, Hands on Fractions  p. 70, Sweets for the Sweet  p. 74, Geoboard Fractions | **AKS**  **30.G.3**: Partition circles and rectangles into equal shares of two or four describing shares as halves/half of, fourths/fourth of, and/or quarters/quarter of and explain I decomposing into more equal shares creates smaller shares  **29.G.3:** Describe the whole as two of two or four of four of the shares | **Vocabulary**  divide  equal parts  fourths  fractions  groups  halves  one-fourth  one-half  part  whole | | **Textbook Resources**  **Pearson**  **Lessons**  16.1  16.2  16.3  16.4 |
| **Exemplar/**  **Problem Solving**  Hands on Standards:  [Equal Shares of Rectangles](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_G.pdf)  Lesson 4  [Student pages](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78865_HOSC_1_GEO_Stu.pdf) |
| **Teacher notes:**   * Manipulatives such as circle fractions provide a wonderful opportunity to introduce the part-whole relationship that exists with fractions. Begin with the whole, half and fourths pieces to allow students to create a basic understanding of this concept. Allow students to explore using the fourths to make halves, and wholes in order to show the equal relationship among the pieces. * Allow ample opportunity for students to familiarize themselves with the written words (whole, halves, and fourths) with picture and concrete representations. * Introduce real-life examples of the part-whole relationship through such experiences as cutting a pizza, pie, large cookie, or cake into equal shares. The bigger the pieces, the fewer pieces are yielded. However, the more times the circle must be divided, the individual pieces become smaller in size. The same experience should be discovered with other shapes (square, triangle, rectangle, hexagon, etc.). * Students should be presented with opportunities to share 5 cookies among 4 people. This leads naturally into the splitting of a shape into fair shares. | **ASSESSMENT**  (Select for this week)  [Geometry B](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/ES%20Math/Assessment/Common%20Assessments%202013-2014/First%20Grade/Quarter%201/gr1.unit2.shapes.B.pdf?_&d2lSessionVal=VAvFwEvVJwNofEpUTAjGvHyY7&ou=58323) | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Hundreds chart  Fractions  Place Value  More than  Less than | |

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| **Quarter 4: Week 5**  **Unit – 5 Shapes and Fractions**  **I can statements**   * I can describe the whole as the number of parts needed to make the whole. * I can prove that the more equal shares a whole has, the smaller the shares. * I can identify and model ½ and ¼ of circles and rectangles. * I can use manipulatives to show ½ of a circle or rectangle. * I can use manipulatives to show ¼ of a circle or rectangle. * I can explain that equal parts ( 2 of, or 4 of) make a whole.   **Technology Resources**  **Instructional Support:**  [**Shape Shoot**](http://www.sheppardsoftware.com/mathgames/earlymath/shapes_shoot.htm)  **Student Practice:** [**Halves Forths**](http://www.ixl.com/math/grade-1/halves-thirds-and-fourths)[**Simple Fractions**](http://www.ixl.com/math/grade-1/simple-fractions-what-fraction-does-the-shape-show)[**Fraction Models**](http://www.ixl.com/math/grade-1/fraction-models-equivalent-to-whole-numbers)  **GA DOE Frameworks**  **Unit 3**  p. 51, Fractions are Easy as Pie  p. 57, I Want Half  p. 60, Half, Not Half  p. 65, Hands on Fractions  p. 70, Sweets for the Sweet  p. 74, Geoboard Fractions | | **AKS**  30.G.3: Partition circles and rectangles into equal shares of two or four describing shares as halves/half of, fourths/fourth of, and/or quarters/quarter of and explain I decomposing into more equal shares creates smaller shares  29.G.3: Describe the whole as two of two or four of four of the shares | | **Vocabulary**  divide  equal parts  fourths  fractions  groups  halves  one-fourth  one-half  part  whole | | | | **Textbook Resources**  **Pearson/enVision**  **Lessons**  16.1  16.2  16.3  16.4 | |
| **Exemplar/**  **Problem Solving**  Hands on Standards:  Recognizing Fractions (use pattern blocks instead Cuisenaire rods)  [Lesson 4](http://www.hand2mind.com/ccssdownloads/e78865_HOSC_G1_G.pdf) | |
| **Teacher notes:**  Brian and his three friends want to share a square pan of brownies equally. What are the different ways to cut the pan of brownies?  Show 3 different rectangles partitioned into fourths and ask students why the diagonally partitioned pieces aren't larger than the others.  What does it mean when we say a shape has equal parts? Give examples of the many ways we use the word equal in math class.  Draw 2 lines to make 4 equal parts. What smaller shapes did you make? Divide the rectangle into 4 equal parts another way? What smaller shapes did you make this time?  Provide students with many identical squares. How many different ways can you divide the squares into fourths? Use examples to support your reasoning. (3 ways: diagonally, horizontal, and perpendicular) | | **ASSESSMENT** | | | | **Skills to Preview/Review:**  **(Calendar/**  **Number Talks)**  Hundreds chart  Fractions  Place Value  More than  Less than | | | |
| **Quarter 4 Week 6**  **Unit 5 Shapes and Fractions**  **I can statements**   * I can build a new shape using two 2-dimensional shapes. (rectangle, square, trapezoid, triangle, ½ circle, ¼ circle) * I can build a new shape using two 3-dimensional shapes. (cube, right rectangular prism, right circular cone, right circular cylinder) * I can take a shape I have made from two shapes and change it to make a new shape.   **Technology Resources**  **Instructional Support:**  [**Fraction flags**](http://www.oswego.org/ocsd-web/games/fractionflags/fractionflags.html)  **GA DOE Frameworks**  **Unit 3**  p. 51, Fractions are Easy as Pie  p. 57, I Want Half  p. 60, Half, Not Half  p. 65, Hands on Fractions  p. 70, Sweets for the Sweet  p. 74, Geoboard Fractions | | **AKS**  **MGSE1.G.2** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.3 This is important for the future development of spatial relations which later connects to developing understanding of area, volume, and fractions. | | **Vocabulary**  divide  equal parts  fourth  fractions  groups  halves  one-fourth  one-half  part  whole | | | | **Textbook Resources**  **Pearson/enVision**  **Lessons**  16.1  16.2  16.3  16.4 | |
| **Exemplar/**  **Problem Solving**  [**Geometry Task 3**](https://grade1commoncoremath.wikispaces.hcpss.org/file/view/1g3_assessmenttask3.docx/445902992/1g3_assessmenttask3.docx) | |
| **Teacher notes:**  First grade teachers should be careful to note that there is no mention in this standard of terms such as fraction, numerator, denominator, etc. Students are simply learning to partition circles and rectangles into two or four shares. Discussions should be conversational and posed around situations of sharing equal parts. One key concept in this standard is that students will discover and be able to verbalize that partitioning the same whole into more shares makes each of the shares smaller (the more pieces there are, the smaller the pieces are).  Justify why dividing, (decomposing) a circle or rectangle into more equal shares creates smaller pieces. | | **ASSESSMENT**  (Select for this week)  [Fractions A](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Fractions%20Assessment%20Form%20A.pdf?_&d2lSessionVal=VAvFwEvVJwNofEpUTAjGvHyY7&ou=58323) | | | | **Skills to Preview/Review:**  **(Calendar/Number Talks**)  Fractions  Measurements addition strategies | | | |

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| **Quarter 4 Week 7**  **Unit 5 Shapes and Fractions**  **I can statements**   * I can make more parts. Does it make the pieces bigger or smaller?   **Technology Resources**  **Instructional Support:**  [**Geoboard Activity**](http://www.k-5mathteachingresources.com/support-files/equal-parts-of-a-square.pdf)  [**Fraction Pictures**](http://www.k-5mathteachingresources.com/support-files/fraction-pictures.pdf)  **Student Practice:** [**http://www.ixl.com/standards/georgia/math/grade-1**](http://www.ixl.com/standards/georgia/math/grade-1)  **GA DOE Frameworks**  **Unit 3**  p. 51, Fractions are Easy as Pie  p. 57, I Want Half  p. 60, Half, Not Half  p. 65, Hands on Fractions  p. 70, Sweets for the Sweet  p. 74, Geoboard Fractions | **AKS**  **29. 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 | **Vocabulary**  divide  equal parts  fourth  fractions  groups  halves  one-fourth  one-half  part  whole | **Textbook Resources**  **Pearson/enVision**  **Lessons**  16.1  16.2  16.3  16.4 |
| **Exemplar/**  **Problem Solving**  Exemplar:  [Sharing Sleds](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/Math%20II/pdfs/task354.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) |
| **Teacher notes:** | **ASSESSMENT**  (Select for this week)  **Common**  **Assessment –** [**Fractions B**](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Fractions%20Assessment%20Form%20B.pdf?_&d2lSessionVal=VAvFwEvVJwNofEpUTAjGvHyY7&ou=58323) | | **Skills to Preview/Review:**  **(Calendar/Number Talks)**  Fractions  Measurements  addition strategies |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 4: Week 8 –**  Review 1st Grade CCAKS and preview 2nd grade CCAKS | **AKS**  Review 1st Grade CCAKS and preview 2nd grade CCAKS | **Vocabulary**  Review 1st Grade CCAKS and preview 2nd grade CCAKS | **Exemplar/**  **Problem Solving**  Posttest  Exemplar  [Farmer Brown](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/Math%20II/pdfs/task315.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) |
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| **Teacher notes:**  **Technology Resources/Tips:**  **Instructional Support:** | **ASSESSMENT**  (Select for this week)  **TOTD - #\_\_\_\_**  **DDA - \_\_\_\_\_**  **Other - \_\_\_\_\_** | **STEAM Connections** | **Skills to Preview/Review:**  (Calendar/Number Talks) |

**Arcado ES Math Pacing Framework Template - Grade 1st Year 2015-2016**

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| **Quarter 4: Week 9 –**  Review 1st Grade CCAKS and preview 2nd grade CCAKS | **AKS**  Review 1st Grade CCAKS and preview 2nd grade CCAKS | **Vocabulary**  Review 1st Grade CCAKS and preview 2nd grade CCAKS | **Textbook Resources** |
|
| **Teacher notes:**  **Technology Resources/Tips:**  **Instructional Support:** | **ASSESSMENT**  (Select for this week)  **TOTD - #\_\_\_\_**  **Common**  **Assessment - \_\_\_\_**  **DDA - \_\_\_\_\_**  **Other - \_\_\_\_\_** | **Skills to Preview/Review:**  (Calendar/Number Talks) | **Exemplar/**  **Problem Solving** |