Arcado Fourth Grade Math Framework – First Nine Weeks 2015-2016

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| **Week 1 – August 10 - 14, 2015**  **Unit – 1 – Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**  **Essential Questions**   * How do we explain relative size of place value? * How do we read and write multi-digit whole numbers? * How do we compare whole numbers? * How do we round whole numbers? | **AKS**  9.NBT.1 explain that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right (e.g., recognize that 700 ÷ 70 = 10 by applying concepts of place value and division)  10.NBT.2 read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons  12.NBT.3 use place value understanding to round whole numbers to any place using tools such as a number line and/or charts  13.NBT.4 add and subtract multi-digit whole numbers fluently using the standard algorithm | **Exemplar/**  **Problem Solving**  Pretest Exemplar  “Collections” | **Vocabulary**  Place value  Multi-digit  Round  Estimate  Standard form  Sum  Difference  Digit | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 1**  Lesson 1  **Chapter4**  Lesson 1  **Chapter 6**  Lesson 1 |
| **Math Staff Development**  **Thursdays**  Enjoy your first week of school.  Grade level meetings as needed |
| **Teacher notes:**  **Technology Resources**  **Instructional Support:**[**Understanding Place Value Concepts**](http://www.youtube.com/watch?v=1oxAeboVP68)[**Math Song: Place Value to Millions**](http://www.youtube.com/watch?v=qJJugG1bTf4)[**Learnzillion: Expanded Form Using Models**](http://www.youtube.com/watch?v=OLZAPvpQQks)[**Learnzillion: Read, Write, Compare Numbers**](http://www.youtube.com/watch?v=XtmtMAopgf0)  **Student Practice:** [**Study Jams: Place Value**](http://studyjams.scholastic.com/studyjams/jams/math/numbers/place-value.htm)[**P.V. Tutorial**](http://www.sheppardsoftware.com/mathgames/placevalue/value.htm)[**Place Value Practice**](http://www.ixl.com/math/grade-4/place-values)[**Gamequarium - Place Value**](http://www.gamequarium.com/placevalue.html)[**Fruit Shoot Modeling**](http://www.sheppardsoftware.com/mathgames/placevalue/fruit_shoot_place_value.htm)[**Compare Numbers to Billions**](http://www.ixl.com/math/grade-4/compare-numbers-up-to-billions)  [**Study Jams: Compare/Order Whole #'s**](http://studyjams.scholastic.com/studyjams/jams/math/numbers/order-whole-numbers.htm)[**Compare Numbers Game**](http://www.sheppardsoftware.com/mathgames/placevalue/FSCompareNumbers.htm)[**Study Jams: Expanded Notation**](http://studyjams.scholastic.com/studyjams/jams/math/numbers/expanded-notation.htm)[**Word Form**](http://www.ixl.com/math/grade-4/word-names-for-numbers)[**Convert between Place Values**](http://www.ixl.com/math/grade-4/convert-between-place-values) | **ASSESSMENT**  **TOTD - #\_\_\_\_\_**  **Common**  **Assessment - \_\_\_\_\_\_\_**  **Interim - \_\_\_\_\_\_\_**  **Other - Pre-Testing**  **Big 20 and Exemplar** | **CALENDAR FOCUS:**  Multiplication Facts  Place Value | **Homework**  Week 1  Spiral HW |
| **Special Days:**  First Day of School 8/10 |

Arcado Fourth Grade Math Framework – First Nine Weeks 2015-2016

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| **Week 2 – August 17 - 21, 2015**  **Unit – 1 - Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**  **Essential Questions**   * How do we explain relative size of place value? * How do we read and write multi-digit whole numbers? * How do we compare whole numbers? * How do we round whole numbers? * How do we add and subtract fluently? | **AKS**  9.NBT.1 explain that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right (e.g., recognize that 700 ÷ 70 = 10 by applying concepts of place value and division)  10.NBT.2 read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons  12.NBT.3 use place value understanding to round whole numbers to any place using tools such as a number line and/or charts  13.NBT.4 add and subtract multi-digit whole numbers fluently using the standard algorithm | **Exemplar/**  **Problem Solving**  Hands on Standards  Lesson 2  Numbers in Different Forms:  p. 42-43  Student pages:  p. 44-45 | **Vocabulary**  Place value  Multi-digit  Round  Estimate  Standard form  Sum  Difference  Digit | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 1**  Lesson 1  **Chapter4**  Lesson 1  **Chapter 6**  Lesson 1  **McGraw-Hill/ My Math**  **Chapter 1**  Lesson 2  Lesson 3  Lesson 4  Lesson 6 |
| **Math Staff Development**  **Thursdays**  8/20  Tech Staff Development During GL |
| **Teacher notes:**  **Technology Resources**  **Instructional Support:**[**Understanding Place Value Concepts**](http://www.youtube.com/watch?v=1oxAeboVP68)[**Math Song: Place Value to Millions**](http://www.youtube.com/watch?v=qJJugG1bTf4)[**Learnzillion: Expanded Form Using Models**](http://www.youtube.com/watch?v=OLZAPvpQQks)[**Learnzillion: Read, Write, Compare Numbers**](http://www.youtube.com/watch?v=XtmtMAopgf0)  **Student Practice:** [**Study Jams: Place Value**](http://studyjams.scholastic.com/studyjams/jams/math/numbers/place-value.htm)[**P.V. Tutorial**](http://www.sheppardsoftware.com/mathgames/placevalue/value.htm)[**Place Value Practice**](http://www.ixl.com/math/grade-4/place-values)[**Gamequarium - Place Value**](http://www.gamequarium.com/placevalue.html)[**Fruit Shoot Modeling**](http://www.sheppardsoftware.com/mathgames/placevalue/fruit_shoot_place_value.htm)[**Compare Numbers to Billions**](http://www.ixl.com/math/grade-4/compare-numbers-up-to-billions)  [**Study Jams: Compare/Order Whole #'s**](http://studyjams.scholastic.com/studyjams/jams/math/numbers/order-whole-numbers.htm)[**Compare Numbers Game**](http://www.sheppardsoftware.com/mathgames/placevalue/FSCompareNumbers.htm)[**Study Jams: Expanded Notation**](http://studyjams.scholastic.com/studyjams/jams/math/numbers/expanded-notation.htm)[**Word Form**](http://www.ixl.com/math/grade-4/word-names-for-numbers)[**Convert between Place Values**](http://www.ixl.com/math/grade-4/convert-between-place-values) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_1 and 2\_\_\_\_**  **Common**  **Assessment - \_\_\_\_\_\_\_**  **Interim - \_\_\_\_\_\_\_**  **Other -** | **CALENDAR FOCUS:**  Multiplication Facts  Place Value | **Homework**  Week 2  Spiral HW |
| **Special Days:**  Open House –  August 17, 2015  Gifted, Art, Music, PE SPG’s  ELA, MA, SC, and SS DA’s-This Week |

Arcado Fourth Grade Math Framework – First Nine Weeks 2015-2016

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| **Week 3 – August 24 - 28, 2015**  **Unit – 1 - Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**  **Essential Questions**   * How do we compare whole numbers? * How do we round whole numbers? * How do we add and subtract fluently? * How do I solve multiple step word problems? | **AKS**  9.NBT.1 explain that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right (e.g., recognize that 700 ÷ 70 = 10 by applying concepts of place value and division)  10.NBT.2 read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons  12.NBT.3 use place value understanding to round whole numbers to any place using tools such as a number line and/or charts  13.NBT.4 add and subtract multi-digit whole numbers fluently using the standard algorithm  3.OA.3 solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding | **Exemplar/**  **Problem Solving**  **Collaborative Exemplar**  **Discuss this problem at the next Tuesday Collaborative and/or Half Day Planning meeting.**  **Bring student papers to discuss.**  “Breakfast with Grandmother” | **Vocabulary**  Multiplication  Groups of  Compare  Multi-Digit  Equation  Product  Factors  Skip counting  Multiple  Multi-digit | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 1**  Lesson 5  **Chapter 2**  Lesson 4  **Chapter 4**  Lesson 3  **Chapter 5**  Lesson 2  **Chapter 6**  Lesson 2  **McGraw-Hill/ My Math**  **Chapter 2**  Lesson 1  Lesson 2  Lesson 3  Lesson 4  Lesson 5  Lesson 6  Lesson 7  Lesson 8 |
| **Math Staff Development**  **Thursdays**  8/27  Tech Staff Development During GL |
| **Teacher notes:**  **Technology Resources**  **Instructional Support:** [**How to Subtract & Regroup**](http://www.mathplayground.com/howto_regroupI.html)[**Addition & Subtraction Files**](https://njctl.org/courses/math/4th-grade-math/addition-subtraction-computation/)  **Performance Based Task:**[**Add Numbers up to Millions**](http://www.ixl.com/math/grade-4/add-numbers-up-to-millions)[**Subtract Numbers up to Millions**](http://www.ixl.com/math/grade-4/subtract-numbers-up-to-millions)[**Word Problems-Addition**](http://www.ixl.com/math/grade-4/add-numbers-up-to-millions-word-problems)[**Word Problems-Subtraction**](http://www.ixl.com/math/grade-4/subtract-numbers-up-to-millions-word-problems)[**Addition/Subtraction Problems**](http://www.k-5mathteachingresources.com/support-files/adding-and-subtracting-multi-digit-whole-numbers.pdf) **Student Practice:** [**Study Jams: Addition with Regrouping**](http://studyjams.scholastic.com/studyjams/jams/math/addition-subtraction/add-with-regroup.htm)[**Study Jams: Subtract with Regrouping**](http://studyjams.scholastic.com/studyjams/jams/math/addition-subtraction/sub-with-regroup.htm) | **ASSESSMENT**  **TOTD - #\_\_3\_&4\_\_\_**  **Common**  **Assessment - \_\_\_\_\_\_\_**  **Interim - \_\_\_\_\_\_**  **Other - \_\_\_\_\_\_\_** | **CALENDAR FOCUS:**  Rounding  Place Value | **Homework**  Week 3  Spiral HW |
| **Special Days:**  Gifted, Art, Music, PE SPG’s |

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| **Week 4 – August 31 – September 4, 2015**  **Unit – 1- Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**   * How do you illustrate and explain multiplication calculations by using equations, rectangular arrays, and/or area models? * How do you multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations? | **AKS**  14.NBT.5 multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain multiplication calculations by using equations, rectangular arrays, and/or area models  1.OA.1 explain a multiplication equation as a comparison and represent verbal statements of multiplicative comparisons as multiplication equations (e.g., interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5) | **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NBT.pdf)  [Lesson 4](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NBT.pdf)  Multiply with a One Digit Number:  p. 50-51  [Student pages:](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NBT.pdf)  [p. 52-53](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NBT.pdf) | **Vocabulary**  Multiplication  Groups of  Compare  Multi-Digit  Equation  Product  Factors  Skip counting  multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 3**  Lesson 1  Lesson 5  Lesson 6  **Chapter 4**  Lesson 3  Lesson 4  Lesson 5  Lesson 6  Lesson 7  Lesson 8  Lesson 9  Lesson 10  Lesson 11  **Chapter 5**  Lesson 1  Lesson 3  Lesson 4  Lesson 6 |
| **Math Staff Development**  **Thursdays** |
| **Technology Resources**  **Instructional Support:**[**Illuminations: All About Multiplication**](http://illuminations.nctm.org/LessonDetail.aspx?ID=U109)[**Learnzillion: Traditional Multiplication**](http://www.youtube.com/watch?v=S9HhNxXQEc4)[**Japanese Multiplication Trick**](http://www.youtube.com/watch?v=_AJvshZmYPs)[**Area Model Multiplication**](http://www.youtube.com/watch?v=g1ZkgHa5XN4)[**Lattice Multiplication**](http://www.youtube.com/watch?v=l06371BASsY)  [**Illuminations: Multiply & Conquer**](http://illuminations.nctm.org/LessonDetail.aspx?id=L858)[**Illuminations: Multiplication Properties**](http://illuminations.nctm.org/LessonDetail.aspx?ID=U110)[**Partial Products (1)**](http://www.k-5mathteachingresources.com/support-files/multiplication-strategy-partial-products-1.pdf)[**Partial Products (2)**](http://www.k-5mathteachingresources.com/support-files/multiplication-strategy-partial-products-1.pdf)[**Activity: Break Apart Method**](http://www.k-5mathteachingresources.com/support-files/breakingapartafactor5.nbt1.pdf)  [**Activity: Multiplication Bump**](http://www.k-5mathteachingresources.com/support-files/multiplicationbumpx100.pdf)  **Performance Based Task:** [**Word Problems: Multiply 2-by-2 Digits**](http://www.ixl.com/math/grade-4/multiply-a-2-digit-number-by-a-2-digit-number-word-problems)[**Word Problems: Multiply 2-by-3 Digits**](http://www.ixl.com/math/grade-4/multiply-a-2-digit-number-by-a-larger-number-word-problems) **Student Practice:**[**Hoop shoot-One by Two Digit Multiplication**](http://www.math-play.com/one-digit-by-two-digit-multiplication-game.html)[**Multiply 2-by-2 Digits**](http://www.ixl.com/math/grade-4/multiply-a-2-digit-number-by-a-2-digit-number)[**Multiply 3-by-2 Digits**](http://www.ixl.com/math/grade-4/multiply-a-2-digit-number-by-a-larger-number)[**Card Game: Make the Largest Product**](http://www.k-5mathteachingresources.com/support-files/makethelargestproduct.pdf)  [**Card Game: Make the Smallest Product**](http://www.k-5mathteachingresources.com/support-files/makethesmallestproduct.pdf) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_\_\_4\_\_\_**  **or**  **[Common](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View)**  **[Assessment - Place Value](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View)**  **Interim - \_\_\_\_\_\_\_**  **Other - \_\_\_\_\_\_\_** | **CALENDAR FOCUS:**  Multiplication Facts  Place Value  Comparing Numbers | **Homework**  Week 4  Spiral HW |
| **Special Days:**  September 1st-Labor Day |

Arcado Fourth Grade Math Framework – First Nine Weeks 2015-2016

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| **Week 5 – September 7 - 11, 2015**  **Unit – 1- Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**   * How do you illustrate and explain multiplication calculations by using equations, rectangular arrays, and/or area models? * How do you multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations? | **AKS**  14.NBT.5 multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain multiplication calculations by using equations, rectangular arrays, and/or area models  1.OA.1 explain a multiplication equation as a comparison and represent verbal statements of multiplicative comparisons as multiplication equations (e.g., interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5) | **Exemplar/**  **Problem Solving**  [Hands on Standards Lesson 4](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NBT.pdf)  Multiply with a Two Digit Number:  p. 54-55; [Student pages: p. 56-57](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOBT_Stu.pdf) | **Vocabulary**  Multiplication  Groups of  Compare  Multi-Digit  Equation  Product  Factors  Skip counting  multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 3**  Lesson 3 |
| **Math Staff Development**  **Thursdays** |
| **Teacher notes:**  **Technology Resources**  **Performance Based Task:**[**Write Variable Expressions**](http://www.ixl.com/math/grade-4/write-variable-expressions-word-problems)[**Represent Word Problems with Variables**](http://www.ixl.com/math/grade-4/write-variable-equations-to-represent-word-problems)[**Multiplicative Comparison Problem Solving**](http://www.k-5mathteachingresources.com/support-files/multiplicativecomparisonproblems.pdf)[**Representing Multiplicative Problems**](http://www.k-5mathteachingresources.com/support-files/representing-multiplicative-comparison-problems.pdf) **Student Practice:**[**Study Jams: Creating Equations**](http://studyjams.scholastic.com/studyjams/jams/math/algebra/acreating-equations.htm) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #5**  **Common**  **Assessment -**  **Interim -**  **Other - \_\_\_\_\_\_\_** | **CALENDAR FOCUS:**  Multiplication Facts  Place Value  Comparing Numbers | **Homework**  Week 5  Spiral HW |
| **Special Days:**  Labor Day 9/7!!!  Grandparents’Week |

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| **Week 6 – September 14 - 18, 2015**  **Unit – 1 Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**   * How do we explain division calculations? * How do we divide with single digit divisors? * How do we interpret remainders? | **AKS**  16.NBT.6 find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models  2.OA.2 solve multiplication and division word problems involving multiplicative comparison using drawings and equations (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison)\*\* | **Exemplar/**  **Problem Solving**  **Collaborative Exemplar**  **Discuss this problem at the next Tuesday Collaborative and/or Half Day Planning meeting.**  Exemplar:  “Breakfast with Grandmother” | **Vocabulary**  Divisor  Dividend  Quotient  Single digit  Remainders  Divided by | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 3**  Lesson 2  **Chapter 6**  Lesson 3  Lesson 4  Lesson 5  Lesson 6 |
| **Math Staff Development**  **Thursdays** |
| **Teacher notes:**  Hands on Standards Lesson 6  Divide with a One Digit Divisor:  p. 58-59; Student pages: p. 60-61  **Technology Resources**  **Instructional Support:**[**Relate Multiplication & Division Files**](https://njctl.org/courses/math/4th-grade-math/multiplication-division-relationship/)[**Multi-Digit Mult. & Division Files**](https://njctl.org/courses/math/4th-grade-math/multiplication-of-multi-digit-numbers/)[**What's a Quotient?**](http://www.mathplayground.com/howto_quotients.html)[**Song: Long Division Style**](http://www.youtube.com/watch?v=iWU6K3GV2A8)[**How to Solve Long Division Problems**](http://www.mathplayground.com/howto_longdivision.html)  [**Learnzillion: Interpret Remainders**](http://www.youtube.com/watch?v=lrUiFpi7MvI)[**Division Using Arrays**](http://www.youtube.com/watch?v=erpHiUHk-3A)[**Simple Division Chunking**](http://www.youtube.com/watch?v=CKngfT_o1tw) [**Long Division Chunking**](http://www.youtube.com/watch?v=CvsBlMykkLg)[**Partial Quotients (1)**](http://www.k-5mathteachingresources.com/support-files/division-strategy-partial-quotients1.pdf)[**Partial Quotients (2)**](http://www.k-5mathteachingresources.com/support-files/division-strategy-partial-quotients2.pdf)  **Performance Based Task:**[**2-Digit Division Problems**](http://www.ixl.com/math/grade-4/divide-larger-numbers-by-2-digit-numbers-word-problems)[**Problem Solving: Divide with Zeros**](http://www.ixl.com/math/grade-4/divide-numbers-ending-in-zeroes-multi-digit-divisors-word-problems) **Student Practice:**[**Divider Machine**](http://www.amblesideprimary.com/ambleweb/mentalmaths/dividermachine.html)[**1-Digit Divisors with Remainders**](http://www.ixl.com/math/grade-4/divide-larger-numbers-one-digit-divisors)[**Relate Multiplication and Division**](http://studyjams.scholastic.com/studyjams/jams/math/multiplication-division/relate-mult-div.htm)[**Single-Digit Division**](http://studyjams.scholastic.com/studyjams/jams/math/multiplication-division/single-digit-division.htm)[**Long Division**](http://www.kidsnumbers.com/long-division.php)[**Double-Digit Division**](http://studyjams.scholastic.com/studyjams/jams/math/multiplication-division/double-digit-division.htm)  [**The Quotient Cafe**](http://illuminations.nctm.org/ActivityDetail.aspx?ID=224)[**Remainders Game**](http://www.k-5mathteachingresources.com/support-files/remainders.pdf) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #6\_& 7**  **[Common](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)**  **[Assessment - Adding and Subtracting Whole Numbers](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)**  **Interim - \_\_\_\_\_\_\_** | **CALENDAR FOCUS:**  Multiplication Facts  Arrays | **Homework**  Week 6  Spiral HW |
| **Special Days:** |

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| **Week 7 – September 21 - 25, 2015**  **Unit – 1 Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**   * How do we explain division calculations? * How do we divide with single digit divisors? * How do we interpret remainders? | **AKS**  16.NBT.6 find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models  2.OA.2 solve multiplication and division word problems involving multiplicative comparison using drawings and equations (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison)\*\* | **Exemplar/**  **Problem Solving**  [Hands on Standards Lesson 6](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NBT.pdf)  Divide with a One Digit Divisor:  p. 58-59; [Student pages: p. 60-61](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOBT_Stu.pdf) | **Vocabulary**  Divisor  Dividend  Quotient  Single digit  Remainders  Divided by | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 3**  Lesson 4  Lesson 8 |
| **Math Staff Development**  **Thursdays** |
| **Teacher notes:**  **Technology Resources**  **Instructional Support:**[**Learnzillion: How to Solve Word Problems**](http://www.youtube.com/watch?v=AJL1lobzHQU)  **Performance Based Task:**[**Word Problems: Multiply 2-by-2 Digits**](http://www.ixl.com/math/grade-4/multiply-a-2-digit-number-by-a-2-digit-number-word-problems)[**Word Problems: Multiply 3-by-2 Digits**](http://www.ixl.com/math/grade-4/multiply-a-2-digit-number-by-a-larger-number-word-problems)[**Word Problems: Interpret Remainders with 1-Digit Divisors**](http://www.ixl.com/math/grade-4/divide-by-1-digit-numbers-interpret-remainders) **Student Practice:**[**Modeling Multiplication Problems**](http://www.mathplayground.com/TB_MD/tb_md1_iFrame.html)[**Modeling Division Problems**](http://www.mathplayground.com/TB_MD/tb_md4_iFrame.html) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_**  **Common**  **Assessment - \_\_**  **Interim - \_\_\_\_\_\_\_**  **Other -** | **CALENDAR FOCUS:**  Multiplication Facts  Arrays | **Homework**  Week 7  Spiral HW |
| **Special Days:**  Early Release 24-25th |

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| **Week 8 – September 28 – October 2, 2015**  **Unit – 1- Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**  **Essential Questions**   * How do we determine multiples and factors? * How do we determine prime or composite? * How do we describe and use number and shape patterns? * How do we identify features of patterns? | **AKS**  6.OA.4 find all factor pairs for a whole number in the range 1 - 100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1 - 100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1 - 100 is prime or composite  8.OA.5 generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself (e.g., given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way) | **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_OA.pdf)  [Lesson 3](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_OA.pdf)  Prime and Composite #s:  p. 16-17  [Student pages:](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_OAT_Stu.pdf)  [p. 18-19](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_OAT_Stu.pdf) | **Vocabulary**  Patterns  Features  Prime  Composite  Factors  Multiples | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 3**  Lesson 7  **Chapter 8**  Lesson 1  Lesson 2 |
| **Math Staff Development**  **Thursdays** |
| **Teacher notes:**  **Technology Resources**  **Instructional Support:** [**Rainbow Factor Line**](http://learnzillion.com/lessons/782-find-all-factor-pairs-using-a-rainbow-factor-line)[**Factors with T-Charts**](http://learnzillion.com/lessons/785-find-all-factor-pairs-of-a-number-using-a-tchart)[**Factor Pairs using Area Models**](http://learnzillion.com/lessons/780-find-all-the-factor-pairs-of-a-number-using-area-models)[**Prime Numbers**](http://learnzillion.com/lessons/786-determine-if-a-number-is-prime-or-composite-using-area-models)[**Mathplayground: Divisibility Rules**](http://www.mathplayground.com/howto_divisibility.html)[**Factors & Multiples Jeopardy**](http://www.math-play.com/Factors-and-Multiples-Jeopardy/Factors-and-Multiples-Jeopardy.html)  **Performance Based Task:** [**Number Trains**](http://insidemathematics.org/common-core-math-tasks/4th-grade/4-2003%20Number%20Trains.pdf)[**Identifying Multiples**](http://www.illustrativemathematics.org/illustrations/959)  **Student Practice:** [**Sheppardsoftware: Fruit Shoot (Primes & Composites)**](http://www.sheppardsoftware.com/mathgames/numbers/fruit_shoot_prime.htm)[**Sheppardsoftware: Fruit Shoot (GCF)**](http://www.sheppardsoftware.com/mathgames/fractions/GreatestCommonFactor.htm)[**Study Jams: Greatest Common Factor**](http://studyjams.scholastic.com/studyjams/jams/math/fractions/greatest-common-factor.htm)[**Factors Millionaire**](http://www.math-play.com/Factors-Millionaire/Factors-Millionaire.html) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_\_\_\_\_**  **[Common](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)**  **[Assessment - \_Multiplication](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)\_\_\_** | **CALENDAR FOCUS:**  Area  Patterns  Prime  Composite | **Homework**  Week 8  Spiral HW |
| **Special Days:**  ELA, MA, SC, SS  DA’s This Week!! |

Arcado Fourth Grade Math Framework – First Nine Weeks 2015-2016

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| **Week 9 –October 5- October 9, 2015**  **Unit - 1- Whole Numbers – Multiples, Factors, Prime, Composite, Patterns**   * How do we determine multiples and factors? * How do we determine prime or composite? * How do we describe and use number and shape patterns? * How do we identify features of patterns? | **AKS**  6.OA.4 find all factor pairs for a whole number in the range 1 - 100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1 - 100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1 - 100 is prime or composite  8.OA.5 generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself (e.g., given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way) | **Exemplar/**  **Problem Solving**  **Collaborative Exemplar**  **Discuss this problem at the next Tuesday Collaborative and/or Half Day Planning meeting.**  Exemplar:  [“Harvest Dinner”](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math/pdfs/task101.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) | **Vocabulary**  Patterns  Features  Prime  Composite  Factors  Multiples | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 7**  Lesson 1  Lesson 2  Lesson 3  Lesson 4  Lesson 5  Lesson 6  Lesson 8  Lesson 9 |
| **Math Staff Development**  **Thursdays** |
| **Teacher notes:**  Hands on Standards Lessons 6-7  ID the Rule and Input/output p. 28-29; 32-33  Student pages: p. 30-31; 34-35  **Technology Resources**  **Instructional Support:** [**Repeating Patterns**](http://learnzillion.com/lessons/791-understand-repeating-patterns)[**Find the Rule with Function Tables**](http://learnzillion.com/lessons/790-find-the-rule-for-a-function-machine-using-a-vertical-table)[**Find the Missing Element in Patterns**](http://learnzillion.com/lessons/792-find-missing-elements-in-growing-patterns)[**GCPS CC Assessment: Unit 1 (Part 2)**](https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxtYXRoY29tbW9uY29yZWdyb3VwfGd4OjdhOGM2MmFjZjFiYjE4ZmI)  **Performance Based Task:** [**Buttons**](http://insidemathematics.org/common-core-math-tasks/4th-grade/4-2003%20Buttons.pdf)[**Piles of Oranges**](http://insidemathematics.org/common-core-math-tasks/4th-grade/4-2004%20Piles%20of%20Oranges.pdf)[**Double Plus One**](http://www.illustrativemathematics.org/illustrations/487)[**Baked Bean Cans**](http://nrich.maths.org/7)  **Student Practice:**[**PBSKids: Crack Hacker's Safe**](http://pbskids.org/cyberchase/math-games/crack-hackers-safe/)[**Sheppardsoftware: Balloon Pop (Patterns)**](http://www.sheppardsoftware.com/mathgames/earlymath/BalloonPopPatterns.htm)[**Study Jams: Number Patterns**](http://studyjams.scholastic.com/studyjams/jams/math/algebra/number-patterns.htm) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_8\_\_\_\_\_\_**  **Common**  **Assessment -**  **Other - \_\_\_\_\_\_\_** | **CALENDAR FOCUS:**  Area  Patterns  Prime  Composite | **Homework**  Week 9  Spiral HW |
| **Special Days:** |

Arcado Fourth Grade Math Framework – Second Nine Weeks 2015-2016

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| **Week 10 – October 12-16, 2015**  **Unit - 2- Fraction equivalents**  **Essential Questions**   * How do we use models to explain fraction equivalence? * How do we compare fractions? * How do we use visual models to justify fraction comparison? | **AKS**  18.NF.1 explain why a fraction a/b is equivalent to a fraction (n x a/n x b) by using visual fraction models with attention to how the number and size of the parts differ even though the two fractions themselves are the same size; use this principle to recognize and generate equivalent fractions  19.NF.2 compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model | **Exemplar/**  **Problem Solving**  Exemplar:  Breakfast with Grandmother | **Vocabulary**  Fractions  Numerators  Denominator  Common fractions  Decimal fraction  Equivalent  Improper  Mixed number  Simplest form  Simplify  Benchmark fraction  Compare  Equal (=)  Greater than (>)  Less than (<)  Number line  Proper fraction  Term  Unit fraction  Whole numbers  Whole  Greatest Common Factor  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 7**  Lesson 1  Lesson 2  Lesson 3  Lesson 4  Lesson 5  Lesson 6  Lesson 8  Lesson 9 |
| **Math Staff Development**  **Thursdays**  Plan grade level Exemplar  Select a recorder and place notes  in shared folder  **Special Days**  **Columbus Day** |
| **Teacher notes:**  Hands on Standards Lessons 1-3  **Technology Resources**  **Instructional Support:** [**Illuminations-Equivalent Fractions**](http://illuminations.nctm.org/activitydetail.aspx?id=80)  **Performance Based Task:** [**Picking Fractions**](http://insidemathematics.org/common-core-math-tasks/4th-grade/4-2007%20Picking%20Fractions.pdf)[**Fraction Equivalence**](http://www.illustrativemathematics.org/illustrations/154)[**Explain Equivalence using Models**](http://www.illustrativemathematics.org/illustrations/743)  **Student Practice:** [**Study Jams: Equivalent Fractions**](http://studyjams.scholastic.com/studyjams/jams/math/fractions/equiv-fractions.htm)[**Fraction Frenzy**](http://www.learningplanet.com/sam/ff/index.asp)[**Dirtbike Proportions**](http://www.mathplayground.com/ASB_DirtBikeProportions.html)[**Equivalent Fractions Matching**](http://www.math-play.com/equivalent-fractions-game.html) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_\_\_\_\_\_**  **[Common](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)**  **[Assessment - Division](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)**  **Other -** | **CALENDAR FOCUS:**  Fraction Basics/vocabulary | **Homework**  Week 10 Spiral |

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| **Week 11 – October 19-23, 2015**  **Unit - 2- Fraction equivalents**  **Essential Questions**   * How do we use models to explain fraction equivalence? * How do we compare fractions? * How do we use visual models to justify fraction comparison? | **AKS**  18.NF.1 explain why a fraction a/b is equivalent to a fraction (n x a/n x b) by using visual fraction models with attention to how the number and size of the parts differ even though the two fractions themselves are the same size; use this principle to recognize and generate equivalent fractions  19.NF.2 compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model | **Exemplar/**  **Problem Solving**  ***Hershey Bar Fractions*** | **Vocabulary**  Fractions  Numerators  Denominator  Common fractions  Decimal fraction  Equivalent  Improper  Mixed number  Simplest form  Simplify  Benchmark fraction  Compare  Equal (=)  Greater than (>)  Less than (<)  Number line  Proper fraction  Term  Unit fraction  Whole numbers  Whole  Greatest Common Factor  Multiple   |  | | --- | |  | | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 7**  Lesson 1  Lesson 2  Lesson 3  Lesson 4  Lesson 5  Lesson 6  Lesson 8  Lesson 9 |
| **Math Staff Development**  10/22 |
| **Teacher notes:**  Hands on Standards Lessons 1-3  **Technology Resources**  **Instructional Support:** [**Equivalent Fractions using Area Models**](http://learnzillion.com/lessons/616-recognize-equivalent-fractions-using-area-models) [**Equivalent Fractions using Number Lines**](http://learnzillion.com/lessons/617-recognize-equivalent-fractions-using-number-lines)[**Create Equivalent Fraction Models**](http://learnzillion.com/lessons/1244-create-equivalent-fractions-using-an-area-model)[**Interactive Fraction Switch**](http://www.interactivestuff.org/sums4fun/fswitch.html)  [**GCPS CC Assessment: Unit 2**](https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxtYXRoY29tbW9uY29yZWdyb3VwfGd4OjdjMGY5ZDc3MDFjYTZjZmE)[**Mathvillage: Compare Fractions**](http://www.mathvillage.info/node/75)[**Order Fractions**](http://www.illustrativemathematics.org/illustrations/811)[**Compare Fractions using Benchmarks**](http://www.illustrativemathematics.org/illustrations/812)  **Performance Based Task:**[**Got Your Number**](http://insidemathematics.org/problems-of-the-month/pom-gotyournumber.pdf)[**Compare Two Pizzas**](http://www.illustrativemathematics.org/illustrations/819)[**Illustrations: Compare Fractions**](http://www.illustrativemathematics.org/illustrations/831)  **Student Practice:**[**Find Grammy Using a Number Line**](http://www.visualfractions.com/FindGrammy/findgrammy.html)[**Study Jams: Compare Fractions & Mixed Numbers**](http://studyjams.scholastic.com/studyjams/jams/math/fractions/fractions-mixed-numbers.htm)[**Funbrain: Fresh Baked Fractions!**](http://www.funbrain.com/fract/index.html)[**Tug Team Fractions**](http://www.mathplayground.com/ASB_TugTeamFractions.html) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_10 \_and #11\_\_\_\_\_**  **Common**  **Assessment -**  **Other -** | **CALENDAR FOCUS:**  Fraction Basics/vocabulary | **Homework**  Week 11 Spiral |
| **Special Days:** |

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| **Week 12 –October 26-30, 2015**  **Unit – 2 Fraction equivalents**  **Essential Questions**   * How do we use models to explain fraction equivalence? * How do we compare fractions? * How do we use visual models to justify fraction comparison? | **AKS**  **AKS: 18.NF.1** Explains how a fraction a/b is equivalent to a fraction (n x a/n x b) by using visual fraction models with attention to how the number and size of the parts differ even though the two fractions themselves are the same size; use this principle to recognize and generate equivalent fractions. | **Exemplar/**  **Problem Solving**  [Feeling Hungry](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math_3/pdfs/task639.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) | **Vocabulary**  Fractions  Numerators  Denominator  Common fractions  Decimal fraction  Equivalent  Improper  Mixed number  Simplest form  Simplify  Benchmark fraction  Compare  Equal (=)  Greater than (>)  Less than (<)  Number line  Proper fraction  Term  Unit fraction  Whole numbers  Whole  Greatest Common Factor  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 7**  Lesson 1  Lesson 2  Lesson 3  Lesson 4  Lesson 5  Lesson 6  Lesson 8  Lesson 9 |
| **Math Staff Development**  10/29 |
| **Teacher notes:**  Fill and Compare: Draw two rectangles and a blob shape on a sheet of paper. Make it so that the three areas are not the same but with no area that is clearly largest or smallest. The students' task is to first make a guess about which is the smallest and the largest of the three shapes. After recording their guess, they should use a filler of their choice to decide. Provide small units such as circular disks, Color Tiles, or lima beans. Students should explain in writing what they found out.  Students need experiences counting the inside squares of figures. (Note: They do not need to know the formula for area – this will not help them understand the meaning of area.) Give students index cards or color tiles and ask them to find the area of objects in the classroom. They should cover the objects and count the number of cards or tiles.  Using twelve color tiles, how many different rectangles can you make? This helps children see that different figures can have the same area.  Ask the students to make figures on a geoboard or grid paper for a given area. Talk about how different figures can have the same area. | **ASSESSMENT**  **(CHOOSE ONE)**  **[Common](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)**  **[Assessment - Fractions](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)** | **CALENDAR FOCUS:**  Fraction basics/vocabulary | **Homework**  Week 12  Spiral HW |
| **Special Days:** |

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| **Week 13 –November 2-6, 2015**  **Unit –- 3- Adding and subtracting fractions with like denominators**  **Essential Questions**   * How do we add fractions with like denominators? * How do we sum unit fractions? * How do we simplify fractions? | **AKS**  21.NF.3 recognize that a fraction a/b with a > 1 as a sum of fractions 1/b  22.NF.3\_a. model and explain addition and subtraction of fractions as joining and separating parts referring to the same whole  23.NF.3\_b. decompose a fraction, by using a visual fraction model, into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation and justify reasoning using visual fraction models (e.g., 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8; 8/8 = 7/8 + 1/8) | **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NF.pdf)  [Lesson 4](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NF.pdf)  Add/Sub Fractions:  p. 76-77  [Student pages:](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf)  [p. 78-79](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf) | **Vocabulary**  Fractions  Numerators  Denominator  Common fractions  Decimal fraction  Equivalent  Improper  Mixed number  Simplest form  Simplify  Benchmark fraction  Compare  Equal (=)  Greater than (>)  Less than (<)  Number line  Proper fraction  Term  Unit fraction  Whole numbers  Addition  Compose  Decompose  Equivalent fractions  Proper fraction  Strategy  Subtraction  Whole  Greatest Common Factor  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 8**  Lessons 9 and 10  **Chapter 9**  Lessons 1-7 |
| **Math Staff Development**  11/5 |
| **Teacher notes:**  Give students color tiles and ask them to find the area of objects in the classroom, such as a book. They should estimate how many tiles are needed to cover the object and then cover the object and count the number of tiles used.  To help children see that different figures can have the same area, ask them to use twelve color tiles to see how many different rectangles they can make.  Ask students to draw a shape on their 2 cm grid paper that has an area of 18. Have students compare their figure with another figure and describe how the figures are different. Repeat this process with a different area such as 24 or 36. | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_\_13\_\_** | **CALENDAR FOCUS:**  Fraction basics/vocabulary | **Homework**  Week 13  Spiral HW |
| **Special Days:** |

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| **Week 14 –November 9-13, 2015**  **Unit - 3- Adding and subtracting fractions with mixed numbers**  **Essential Questions**   * How do we add and subtract mixed numbers and improper fractions? * How do we solve word problems involving mixed numbers and improper fractions? | **AKS**  21.NF.3 recognize that a fraction a/b with a > 1 as a sum of fractions 1/b  22.NF.3\_a. model and explain addition and subtraction of fractions as joining and separating parts referring to the same whole  23.NF.3\_b. decompose a fraction, by using a visual fraction model, into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation and justify reasoning using visual fraction models (e.g., 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8; 8/8 = 7/8 + 1/8)  24.NF.3\_c. add and subtract mixed numbers with like denominators (e.g., by replacing each mixed number with an equivalent fraction and/or by using properties of operations and the relationship between addition and subtraction) | **Problem Solving**  **Exemplar**  Portfolio Pizza Party/Hands On Standards Lesson 5  [Student Pages](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf) | **Vocabulary**  Fractions  Numerators  Denominator  Common fractions  Decimal fraction  Equivalent  Improper  Mixed number  Simplest form  Simplify  Benchmark fraction  Compare  Equal (=)  Greater than (>)  Less than (<)  Number line  Proper fraction  Term  Unit fraction  Whole numbers  Addition  Compose  Decompose  Equivalent fractions  Proper fraction  Strategy  Subtraction  Whole  Greatest Common Factor  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 8**  Lessons 9 and 10  **Chapter 9**  Lessons 1-7 |
| **Math Staff Development**  11/12 |
| **Teacher notes:**  **Technology Resources**  **Instructional Support:** [**Write Mixed Number Fractions**](http://learnzillion.com/lessons/84-write-mixed-number-fractions-drawing-shapes)[**Fractions into Mixed Numbers**](http://learnzillion.com/lessons/332-convert-improper-fractions-into-mixed-numbers-dividing)[**Improper Fractions as Mixed Numbers**](http://learnzillion.com/lessons/86-write-improper-fractions-as-mixed-numbers)  **Performance Based Task:**[**Leapfrog Fractions**](http://insidemathematics.org/common-core-math-tasks/4th-grade/4-2009%20Leapfrog%20Fractions.pdf) **Student Practice:** [**Sheppardsoftware: Mathman (Mixed to Improper)**](http://www.sheppardsoftware.com/mathgames/fractions/mathman_improper_fractions.htm)  **Technology Resources**  **Instructional Support:**  [**Joining Parts by Adding**](http://learnzillion.com/lessons/1421-add-fractions-by-joining-parts)[**Separate Parts by Subtracting**](http://learnzillion.com/lessons/1422-subtract-fractions-by-separating-parts)[**Identify Parts of a Whole**](http://learnzillion.com/lessons/352-find-a-fraction-identifying-the-parts-of-a-whole)  **Student Practice:**[**Sheppardsoftware: Mathman (Add & Subtract Fractions)**](http://www.sheppardsoftware.com/mathgames/fractions/mathman_add_subtract_fractions.htm)[**Study Jams: Add & Subtract with Common Denominators**](http://studyjams.scholastic.com/studyjams/jams/math/fractions/add-sub-common-denom.htm)[**Bridge Building Fractions**](http://www.mathplayground.com/FractionGame/FractionGame.html)[**Add & Subtract Board Game**](http://www.math-play.com/adding-and-subtracting-fractions-game.html)[**Adding Fractions**](http://www.math-play.com/Adding-Fractions-Game.html) **Student Practice:** [**Thinking Blocks: Fraction Word Problems**](http://www.thinkingblocks.com/tb_fractions/fractions.html) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_\_14\_\_** | **CALENDAR FOCUS:**  Fraction basics/vocabulary | **Homework**  Week 14  Spiral HW |
| **Special Days:**  11/11 Veteran’s Day |

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| **Week 15 – November 16-20, 2015**  **Unit - 3- Adding/subtracting fractions in word problems**  **Essential Questions**   * How do we add and subtract mixed numbers and improper fractions? * How do we solve word problems involving mixed numbers and improper fractions?   **Teacher notes:**  **Technology Resources**  **Instructional Support:** [**GCPS CC Assessment: Unit 3**](https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxtYXRoY29tbW9uY29yZWdyb3VwfGd4OjczYWJjNzZjOWM2MTdkMmU)[**Learnzillion: Solve a Word Problem**](http://learnzillion.com/lessons/107-add-fractions-with-like-denominators-using-shapes-and-sets)  **Performance Based Task:** [**Chocolate Bar Fractions**](http://schools.nyc.gov/NR/rdonlyres/0C0422CA-DBAF-4476-928F-71102DB2F703/140801/NYCDOE_G4_ChocolateBarFractions_FINAL.pdf)[**Farmer Fred**](http://schools.nyc.gov/NR/rdonlyres/04CC9ECB-C5AB-47DA-891B-6D8F6B6EFE88/0/NYCDOEG4MathFarmerFred_Final.pdf)  **Student Practice:** [**Thinking Blocks: Fraction Word Problems**](http://www.thinkingblocks.com/tb_fractions/fractions.html) | **AKS**  25.NF.3\_d. solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators by using visual fraction models and equations to represent the problem  **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_\_15** | **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf)  [Lesson 6](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf)  Add/Sub Mixed Numbers:  p. 84-85  [Student pages:](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf)  [p. 86-87](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf) | **Vocabulary**   |  | | --- | |  | | Fractions  Numerators  Denominator  Common fractions  Decimal fraction  Equivalent  Improper  Mixed number  Simplest form  Simplify  Benchmark fraction  Compare  Equal (=)  Greater than (>)  Less than (<)  Number line  Proper fraction  Term  Unit fraction  Whole numbers  Addition  Compose  Decompose  Equivalent fractions  Proper fraction  Strategy  Subtraction  Whole  Greatest Common Factor  Multiple  **CALENDAR FOCUS:**  Fraction basics/vocabulary | |  | |  | |  | |  | |  | |  | | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 8**  Lessons 9 and 10  **Chapter 9**  Lessons 1-7  **Homework**  Week 15  Spiral HW |
| **Math Staff Development**  11/19  **Special Days:**  11/23-11/27  Thanksgiving Break |

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| **Week 16 –November 30-December 4, 2015**  **Unit – 4 Multiplying fractions by a whole number**  **Essential Questions**   * How do we solve word problems involving fractions? * How do we multiply a fraction by a whole number? * How do we model multiplying a fraction by a whole number? | **AKS**  25.NF.3\_d. solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators by using visual fraction models and equations to represent the problem | **Exemplar/**  **Problem Solving**  Harvest Dinner[/ Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NF.pdf)  [Lesson 7](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NF.pdf)  Multiples of Unit Fractions:  p. 88 - 89  [Student pages:](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf)  [p. 90-91](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_NOF_Stu.pdf) | **Vocabulary**   |  | | --- | | denominator  equivalent  equivalent fractions  fraction  improper fraction  mixed number  multiple  multiplication/multiply  numerator  proper fraction  strategy  term  unit fraction  whole  whole numbers  Greatest Common Factor  Multiple | |  | |  | |  | |  | |  | |  | |  | | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 9**  Lessons 8 and 9 |
| **Math Staff Development**  12/3 |
| **Teacher notes: Technology Resources**  **Instructional Support:** [**Multiply a Fraction with a Whole Number-Visual Models**](http://learnzillion.com/lessons/1429-multiply-a-fraction-by-a-whole-number-using-visual-models-and-repeated-addition)[**Multiply a Fraction by a Whole Number-Use Repeated Addition**](http://learnzillion.com/lessons/122-multiply-fractions-by-whole-numbers-using-repeated-addition)[**Full House: An Invitation to Fractions**](http://www.k-5mathteachingresources.com/support-files/fullhouseaninvitationtofractions.pdf)  **Performance Based Task:** [**Chocolate Bar Fractions**](http://schools.nyc.gov/NR/rdonlyres/0C0422CA-DBAF-4476-928F-71102DB2F703/140801/NYCDOE_G4_ChocolateBarFractions_FINAL.pdf)  **Student Practice:** [**XP Math: Multiply Fractions**](http://www.xpmath.com/forums/arcade.php?do=play&gameid=110#.UYcsgqLFWSp)  **Instructional Support:** [**Multiply a Fraction with a Whole Number-Visual Models**](http://learnzillion.com/lessons/1429-multiply-a-fraction-by-a-whole-number-using-visual-models-and-repeated-addition)  **Student Practice:** [**Models for Fraction Multiplication**](http://www.k-5mathteachingresources.com/support-files/models-for-fraction-multiplication-4nf4a.pdf)[**Fraction Bars Multiplication**](http://fractionbars.com/Multiplication_Game/) | **ASSESSMENT**  **(CHOOSE ONE)**  **TOTD - #\_\_16** | **CALENDAR FOCUS:**  Fraction basics/vocabulary | **Homework**  Week 16  Spiral HW |
| **Special Days:** |

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| **Week 17 –December 7-11, 2015**  **Unit – 4 Multiplying fractions by a whole number**  **Essential Questions**   * How do we solve word problems involving fractions? * How do we multiply a fraction by a whole number? * How do we model multiplying a fraction by a whole number? | **AKS**  26.NF.4 apply and extend previous understanding of multiplication to multiply a fraction by a whole number  27.NF.4\_a. recognize a fraction a/b as a multiple of 1/b (e.g., use a visual fraction model to represent 5/4 as the product 5 x (1/4), recording the conclusion by the equation 5/4 = 5 x (1/4))  28.NF.4\_b. understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number (e.g., use a visual fraction model to express 3 x (2/5) as 6 x (1/5), recognizing this product as 6/5; (In general, n x (a/b) = (n x a)/b)) | **Exemplar/**  **Problem Solving**  GCPS  Learning Experience  AKS 27 and 28  <https://sites.google.com/site>  /gwinnettmathakscc35/4 | **Vocabulary**  denominator  equivalent  equivalent fractions  fraction  improper fraction  mixed number  multiple  multiplication/multiply  numerator  proper fraction  strategy  term  unit fraction  whole  whole numbers  Greatest Common Factor  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 9**  Lessons 8 and 9 |
| **Math Staff Development**  12/10 |
| **Teacher notes: Technology Resources**  **Instructional Support:**[**Modeling Multiplication of Fractions and Whole Numbers**](http://learnzillion.com/lessons/126-multiply-fractions-by-whole-numbers-using-models) **Student Practice:** [**Multiplying a Number by a Fraction**](http://www.k-5mathteachingresources.com/support-files/multiplying-a-number-by-a-fraction.pdf) **Instructional Support:** [**Solving Word Problems with Multiplying Fractions**](http://learnzillion.com/lessons/1430-solve-word-problems-involving-multiplying-a-fraction-by-a-whole-number)  **Performance Based Task:** [**Sugar in 6 Cans of Soda**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/000/857/original/illustrative_mathematics_857.pdf?1345581674)[**Word Problem Cards: Multiply Fractions by Whole Numbers**](http://www.k-5mathteachingresources.com/support-files/wholenumberxfractionwordproblems.pdf)[**The Cajun Chili Caper**](http://teacher.scholastic.com/maven/chili/index.htm) | **ASSESSMENT**  **[Common](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)**  **[Assessment - Adding and Subtracting Fractions with Mixed Numbers](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)** | **CALENDAR FOCUS:**  Fraction basics/vocabulary | **Homework**  Week 17  Spiral HW |
| **Special Days:**  ELA, MA, SC, SS DA’s -12/7-12/10 |

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| **Week 18 – December 14-18, 2015**  **Unit – 4- Multiplying fractions in word problems**  **Essential Questions**   * How do we solve word problems involving fractions? * How do we multiply a fraction by a whole number? * How do we model multiplying a fraction by a whole number? | **AKS**  29.NF.4\_c. solve word problems involving multiplication of a fraction by a whole number (e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?) | **Exemplar/**  **Problem Solving**  Mid-Year Test Exemplar  “Collections” | **Vocabulary**  denominator  equivalent  equivalent fractions  fraction  improper fraction  mixed number  multiple  multiplication/multiply  numerator  proper fraction  strategy  term  unit fraction  whole  whole numbers  Greatest Common Factor  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 9**  Lessons 8 and 9 |
| **Math Staff Development**  12/17 |
| **Teacher notes: Teacher notes: Technology Resources**  **Instructional Support:**[**Modeling Multiplication of Fractions and Whole Numbers**](http://learnzillion.com/lessons/126-multiply-fractions-by-whole-numbers-using-models) **Student Practice:** [**Multiplying a Number by a Fraction**](http://www.k-5mathteachingresources.com/support-files/multiplying-a-number-by-a-fraction.pdf) **Instructional Support:** [**Solving Word Problems with Multiplying Fractions**](http://learnzillion.com/lessons/1430-solve-word-problems-involving-multiplying-a-fraction-by-a-whole-number)  **Performance Based Task:** [**Sugar in 6 Cans of Soda**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/000/857/original/illustrative_mathematics_857.pdf?1345581674)[**Word Problem Cards: Multiply Fractions by Whole Numbers**](http://www.k-5mathteachingresources.com/support-files/wholenumberxfractionwordproblems.pdf)[**The Cajun Chili Caper**](http://teacher.scholastic.com/maven/chili/index.htm) | **ASSESSMENT**  **TOTD - #17** | **CALENDAR FOCUS:**  Fraction basics/vocabulary | **Homework**  Week 17  Spiral HW |
| **Special Days:** |

**Arcado Fourth Grade Math Framework Third Nine Weeks 2015-2016**

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| **Week 19eek 216k 21mentary lanning/Staff Development - January 4-January 8, 2016**  **Unit 5- Fractions and Decimals**  **Essential Questions**   * How do you express a fraction with equivalent denominators of 10 and 100? * How do you use this technique to add two fractions with respective denominators 10 and 100? | **AKS**  30.NF 5 express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100 (e.g., express 3/10 as 30/100 and add 3/10 + 4/100 = 34/100) *Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But, addition and subtraction with unlike denominators in general is not a requirement at this grade.*  31.NF.6 use decimal notation for fractions with denominators 10 or 100 (e.g., rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram)  32.NF.7 compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model | **Exemplar/**  **Problem Solving**  [Hands on Standards](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)  [Lesson 9](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)  Composing Decimal Fractions:  p. 96-97  [Student pages:](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)  [p. 98-99](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/) | **Vocabulary**  Fractions  Numerator  Denominators  Strategies  Common fractions  Simplest form  Greatest Common Factor  Decimal  Compare  Order  Decimal point  Equal (=)  Equivalent  Hundredths  Multiplication/multiply  Reasoning  Tenths  Term  Unit fraction  Whole numbers  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1-10 |
| **Math Staff Development**  1/7 |
| **Teacher notes: Technology Resources**  **Instructional Support:** [**Add Tenths & Hundredths by Creating Equivalent Fractions**](http://learnzillion.com/lessons/1428-add-tenths-and-hundredths-by-creating-equivalent-fractions)[**Add Fractions with Tenths and Hundredths**](http://learnzillion.com/lessons/351-add-fractions-with-tenths-and-hundredths-denominators)  **Performance Based Task:** [**Fraction Equivalence**](file:///C:\Documents%20and%20Settings\e198610383\Desktop\12-13%20Inst%20Res%20Cal%20Proj\IRC%20Calendar%20Proj\3rd%20Nine%20Weeks\Fraction%20Equivalence)[**Adding Tenths & Hundredths**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/000/153/original/illustrative_mathematics_153.pdf?1343856861)[**Tenths & Hundredths**](http://www.nzmaths.co.nz/sites/default/files/HundredthsPracticeSheet.pdf)[**Word Problem Cards-Equivalent Fractions with 100 & 10**](http://www.k-5mathteachingresources.com/support-files/equivalent-fractions-with-a-denominator-of-100-problems.pdf)  **Student Practice:** [**Sums of 1**](http://www.k-5mathteachingresources.com/support-files/sumsof1.pdf) | **ASSESSMENT**  **TOTD - #\_ 18 and 19** | **CALENDAR FOCUS:**  Fraction basics/vocabulary | **Homework**  Week 19 Spiral HW |
| **Special Days:**  Winter Break 12/21-1/5 |

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| **Week 20 – January 11-15, 2016**  **Unit 5- Fractions and Decimals**  **Essential Questions**   * How do you express a fraction with equivalent denominators of 10 and 100? * How do you use this technique to add two fractions with respective denominators 10 and 100? | **AKS**  30.NF 5 express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100 (e.g., express 3/10 as 30/100 and add 3/10 + 4/100 = 34/100) *Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But, addition and subtraction with unlike denominators in general is not a requirement at this grade.*  31.NF.6 use decimal notation for fractions with denominators 10 or 100 (e.g., rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram)  32.NF.7 compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model | **Exemplar/**  **Problem Solving**  [A Puzzle](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math_3/pdfs/task613.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323)/  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NF.pdf)  [Lesson](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_NF.pdf) 10  Fractions and Decimals:  p. 100-101  [Student pages:](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)  [p. 102-103](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/) | **Vocabulary**  Fractions  Numerator  Denominators  Strategies  Common fractions  Simplest form  Greatest Common Factor  Decimal  Compare  Order  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1-10 |
| **Math Staff Development**  1/14 |
| **Teacher notes: Instructional Support:** [**Convert Fractions to Decimals using Visual Aids**](http://learnzillion.com/lessons/1426-convert-fractions-to-decimals-to-the-tenths-place-using-visual-aids-and-division)[**Convert to the tenths place**](http://learnzillion.com/lessons/1424-convert-decimals-to-fractions-to-the-tenths-place-using-number-lines)[**Convert to the hundredths place**](http://learnzillion.com/lessons/1427-convert-fractions-to-decimals-to-the-hundredths-place-using-division)[**Guess the Number on the Line**](http://www.wmnet.org.uk/wmnet/custom/files_uploaded/uploaded_resources/853/numberlinev2.swf)  **Performance Based Task:** [**Expanded Fractions & Decimals**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/000/145/original/illustrative_mathematics_145.pdf?1355862522)[**Dimes & Pennies**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/000/152/original/illustrative_mathematics_152.pdf?1343856862)[**Decimal Riddles**](http://www.k-5mathteachingresources.com/support-files/decimalriddles.pdf) | **ASSESSMENT**  **[Common](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math_3/pdfs/task613.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323)**  **[Assessment - Multiplying Fractions](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math_3/pdfs/task613.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323)** | **CALENDAR FOCUS:**  Multiply fractions by whole numbers  Line Plots  Geometry | **Homework**  Week 20  Spiral HW |
| **Special Days:** |

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| **Week 21 – January 18-22, 2016**  Unit - 5- Fractions and Decimals  Essential Questions   * How do you express a fraction with equivalent denominators of 10 and 100? * How do you use this technique to add two fractions with respective denominators 10 and 100? | **AKS**  30.NF 5 express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100 (e.g., express 3/10 as 30/100 and add 3/10 + 4/100 = 34/100) *Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But, addition and subtraction with unlike denominators in general is not a requirement at this grade.*  31.NF.6 use decimal notation for fractions with denominators 10 or 100 (e.g., rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram)  32.NF.7 compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model | **Exemplar/**  **Problem Solving**  Whole Group  Super Source  Gr. 3-4  Base Ten Blocks  “Decimal Decision”  p. 30-33 | **Vocabulary**  Fractions  Numerator  Denominators  Strategies  Common fractions  Simplest form  Greatest Common Factor  Decimal  Compare  Order  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1-10 |
| **Math Staff Development**  1/21 |
| **Teacher notes:**  **Student Practice:** [**Decimals in Money**](http://www.k-5mathteachingresources.com/support-files/decimalsinmoney.pdf)[**Representing Decimals in BTB**](http://www.k-5mathteachingresources.com/support-files/representingdecimalswithbase10blocks.pdf)[**Puppy Chase Decimals**](http://www.mathplayground.com/ASB_Puppy_Chase_Decimals.html)[**Study Jams: Decimal Number Lines**](http://studyjams.scholastic.com/studyjams/jams/math/decimals-percents/place-decimal-number-line.htm)  [**Decimal Tenths Game**](http://www.sheppardsoftware.com/mathgames/decimals/DecimalModels10.htm)[**Decimal Hundredths Game**](http://www.sheppardsoftware.com/mathgames/decimals/DecimalModels.htm)[**Decimal Place Value**](http://www.sheppardsoftware.com/mathgames/decimals/scooterQuestDecimal.htm)[**Decimal Tank: Fractions to Decimals**](http://www.toonuniversity.com/flash.asp?err=198&engine=)[**Decimals to Fractions**](http://www.onlinemathlearning.com/decimals-to-fractions.html) | **ASSESSMENT**  **TOTD - #21** | **CALENDAR FOCUS:**  Multiply fractions by whole numbers  Line Plots  Geometry  Area & perimeter | **Homework**  Week 21 Spiral HW |
| **Special Days:**  MLK Day 1/18 |

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| **Week 22 – January 25-29, 2016**  **Unit – 5- Fractions and Decimals**  **Essential Questions**   * How do you express a fraction with equivalent denominators of 10 and 100? * How do you use this technique to add two fractions with respective denominators 10 and 100? | **AKS**  46.G.1 draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines and identify these in two-dimensional figures  47.G.2 classify two-dimensional figures based on the presence or absence of parallel or perpendicular line segments, or the presence or absence of angles of a specified size and identify right triangles  49.G.3 recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry | **Exemplar/**  **Problem Solving**  [Grandfather Tang](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math/pdfs/task61.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) | **Vocabulary**  Fractions  Numerator  Denominators  Strategies  Common fractions  Simplest form  Greatest Common Factor  Decimal  Compare  Order  Multiple | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1-10 |
| **Math Staff Development**  1/28 |
| **Teacher notes:**  **Instructional Support:** [**Decimal Models**](http://www2.nzmaths.co.nz/LearningObjects/numbers/numbersENdecimal.html)[**Decimal Hundreds Chart**](http://www.k-5mathteachingresources.com/support-files/decimalhundredschart.pdf) [**Decimal Squares Template**](http://www.k-5mathteachingresources.com/support-files/decimalsquares.pdf)  **Performance Based Task:** [**How Many Tenths & Hundredths?**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/000/103/original/illustrative_mathematics_103.pdf?1360008058)[**Using Place Value**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/000/182/original/illustrative_mathematics_182.pdf?1360076519)[**Decimal Sort**](http://www.k-5mathteachingresources.com/support-files/decimalsort4.nf7.pdf)  **Student Practice:** [**Printable Game: Comparing Decimals**](http://www.k-5mathteachingresources.com/support-files/comparingdecimals.pdf)[**Puppy Pull Decimals**](http://www.mathplayground.com/ASB_Puppy_Pull_Decimals.html)[**Comparing Decimals Game**](http://www.buzzmath.com/Docs/#F6KME491&page=2)[**Ordering Decimals Game**](http://www.buzzmath.com/Docs/#CC06E47)[**Compare Decimals Fruit Shoot**](http://www.sheppardsoftware.com/mathgames/decimals/CompareDecimals.htm)  [**Decimal Number Comparison**](http://www.ezschool.com/Games/CompareDecimals.html) | **ASSESSMENT**  **[Common](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)**  **[Assessment – Fractions and Decimals](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View/)** | **CALENDAR FOCUS:**  Area & perimeter  Line Plots  Geometry | **Homework**  Week 22 Spiral HW |
| **Special Days:** |

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| **Week 23-February 1-5, 2016**  **Unit – 6- Geometry**   * How do we draw and identify geometric basics? * How do we identify and classify 2-D figures? * How do we classify 2-D figures by line segments and angles? | **AKS**  46.G.1 draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines and identify these in two-dimensional figures  47.G.2 classify two-dimensional figures based on the presence or absence of parallel or perpendicular line segments, or the presence or absence of angles of a specified size and identify right triangles  49.G.3 recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry | **Exemplar/**  **Problem Solving**  [A Challenge](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math_3/pdfs/task601.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) | **Vocabulary**  Angles  Acute  Obtuse  Right  Face  Edge  2-dimensional  Line segments  Geometry  Sides  Polygon  Quadrilaterals  Angle measure  Protractor  Equilateral triangle  Isosceles triangle  Line  Line of symmetry  Parallel lines  Parallelogram  Perpendicular lines  Plane figure  Point  Ray  Rectangle  Rhombus  Scalene triangle  Square  Symmetry  Trapezoid  Triangle  Vertex/vertices | **Textbook Resources**  **Chapter 14**  Lessons 8-10 |
| **Math Staff Development**  2/4 |
| **Teacher notes:** Hands on Standards- Lesson 1 Parallel and Perpendicular Lines  **Instructional Support:** [**Geoboard Paper**](http://www.k-5mathteachingresources.com/support-files/5x5geoboardpaper.pdf)[**Study Jams: Geometric Lines**](http://studyjams.scholastic.com/studyjams/jams/math/geometry/types-of-lines.htm)[**Math Rocks! Angle Song**](http://www.youtube.com/watch?feature=player_embedded&v=L2rJRDTfN0g)  **Performance Based Task:** [**Geoboard Line Segments**](http://www.k-5mathteachingresources.com/support-files/geoboard-line-segments.pdf)[**Angles on the Geoboard**](http://www.k-5mathteachingresources.com/support-files/anglesonthegeoboard.pdf)  **Student Practice:** [**Alphabet Lines**](http://www.k-5mathteachingresources.com/support-files/alphabet-lines.pdf)[**Angle Barrier Game**](http://www.k-5mathteachingresources.com/support-files/anglebarriergame.pdf)[**Geometry Angles Game**](http://www.math4children.com/Grade4/games/Geometry/Angles/angles/index.html)[**Measuring Angles: Banana Hunt**](http://www.oswego.org/ocsd-web/games/bananahunt/bhunt.html)[**Flipcard Angle Types**](http://xpmath.com/forums/arcade.php?do=play&gameid=78)[**Angle Saucers**](http://www.toonuniversity.com/flash.asp?err=200)  [**Target Alien Angles**](http://www.innovationslearning.co.uk/subjects/maths/activities/year6/angles/game.asp)[**Matho-Geometric Vocabulary Game**](http://www.aplusmath.com/cgi-bin/games/geomatho)[**Quia: Geometric Vocabulary Matching**](http://www.quia.com/mc/805.html) | **ASSESSMENT**  **TOTD - #22 and #23** | **CALENDAR FOCUS:**  Draw & identify geometric figures  Symmetry | **Homework**  Week 23 Spiral HW |
| **Special Days:** |

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| **Week 24 – February 8-12, 2016**  **Unit – 6- Geometry**  **Essential Questions**   * How do we draw and identify geometric basics? * How do we identify and classify 2-D figures? * How do we classify 2-D figures by line segments and angles? | **AKS**  46.G.1 draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines and identify these in two-dimensional figures  47.G.2 classify two-dimensional figures based on the presence or absence of parallel or perpendicular line segments, or the presence or absence of angles of a specified size and identify right triangles  49.G.3 recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry | **Exemplar/**  **Problem Solving**  [Hands on Standards](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_G.pdf)  [Lesson 4](http://www.hand2mind.com/ccssdownloads/e78868_HOSC_G4_G.pdf)  Symmetry:  p. 140-141  [Student pages:](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_G_Stu.pdf)  [p. 142-143](http://www.hand2mind.com/pdf/hos/hos-cce-student-pages/e78868_HOSC_4_G_Stu.pdf) | **Vocabulary**  Angles  Acute  Obtuse  Right  Face  Edge  2-dimensional  Line segments  Geometry  Sides  Polygon  Quadrilaterals  Angle measure  Protractor  Equilateral triangle  Isosceles triangle  Line  Line of symmetry  Parallel lines  Parallelogram  Perpendicular lines  Plane figure  Point  Ray  Rectangle  Rhombus  Scalene triangle  Square  Symmetry  Trapezoid  Triangle  Vertex/vertices | **Textbook Resources**  **Chapter 14**  Lessons 8-10 |
| **Math Staff Development**  2/11 |
| **Teacher notes: Technology Resources**  **Instructional Support:** [**Rectangles & Parallelograms**](http://illuminations.nctm.org/LessonDetail.aspx?id=L350)[**Shape Up**](http://illuminations.nctm.org/LessonDetail.aspx?id=L813)[**2-D Shape Cards**](http://www.k-5mathteachingresources.com/support-files/2dshapecards.pdf)[**Polygon Sort Sheet**](http://www.k-5mathteachingresources.com/support-files/polygoncutandsortsheet.pdf)[**Quadrilateral Cutouts**](http://www.k-5mathteachingresources.com/support-files/quadrilateralscutouts.pdf)[**Identifying characteristics**](http://fcit.usf.edu/math/resource/perftsk2/geometry.htm)  **Performance Based Task:** [**Quilt Making**](http://insidemathematics.org/common-core-math-tasks/4th-grade/4-2008%20Quilt%20Making.pdf)[**Piece it Together**](http://insidemathematics.org/problems-of-the-month/pom-pieceittogether.pdf)[**Are these right?**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/001/273/original/illustrative_mathematics_1273.pdf?1364597818)[**Finding Unknown Angles**](http://s3.amazonaws.com/illustrativemathematics/illustration_pdfs/000/001/168/original/illustrative_mathematics_1168.pdf?1365795913)[**What Shape?**](http://nrich.maths.org/6986/note)[**Classify 2-D Figures**](http://www.k-5mathteachingresources.com/support-files/classifying-2d-shapes.pdf)[**Constructing Quadrilaterals**](http://www.k-5mathteachingresources.com/support-files/constructingquadrilaterals.pdf)  [**Quadrilateral Criteria**](http://www.k-5mathteachingresources.com/support-files/quadrilateralcriteria.pdf)  **Student Practice:** [**Polygon Sort**](http://www.crickweb.co.uk/ks2numeracy-shape-and-weight.html)[**Quadrilateral Quest**](http://teams.lacoe.edu/documentation/classrooms/amy/geometry/6-8/activities/quad_quest/quad_quest.html)[**2-D Shape Properties Matching**](http://www.ngfl-cymru.org.uk/gp/pupils/maths/2Dshapes.htm)[**Quadrilateral Card Game**](http://nrich.maths.org/2924) | **ASSESSMENT**  **TOTD - #24** | **CALENDAR FOCUS:**  Identify 2-d figures  Symmetry | **Homework**  Week 24  Spiral HW |
| **Special Days:** |

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| **Week 25 – February 15-19, 2016**  **Unit – 7- Measurement**  **Essential Questions**   * How do we measure angles? * How do we draw angles? * How do you recognize that an angle is measured with reference to a circle with its center at the common endpoint of the rays? * How do we explain angle measure as additive? * How do we find unknown angles?   **Teacher notes: Technology Resources**  **Instructional Support:** [**Youtube: Finding Angle Measures**](http://www.youtube.com/watch?v=MzonfT6-8t0)[**Youtube: Finding Missing Angles**](http://www.youtube.com/watch?v=z8BoVhTkaBw)  **Performance Based Task:** [**Word Problem Cards**](http://www.k-5mathteachingresources.com/support-files/anglewordproblems.pdf)[**How Many Degrees?**](http://www.k-5mathteachingresources.com/support-files/hiwmanydegrees.pdf) [**Angles in a Right triangle**](http://www.k-5mathteachingresources.com/support-files/anglesinarighttriangle.pdf) **Student Practice:** [**Banana Hunt**](http://www.oswego.org/ocsd-web/games/bananahunt/bhunt.html)[**Alien Angles**](http://www.mathplayground.com/alienangles.html) | **AKS**  33.MD.1 know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. (e.g., know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36),... | **Exemplar/**  **Problem Solving**  GCPS Protractor Lesson | **Vocabulary**  acute angle  additive  angle  angle ruler  arc  area  centimeter(cm)  circle  cup (c)  data  data set  decompose  degree  endpoint  foot (ft)  gallon (gal)  gram (g)  interior angle  intersect  kilogram (kg)  kilometer (km)  line plot  liter (L)  mass  meter (m)  metric  mile (mi)  milliliter (mL)  obtuse angle  ounce (oz)  perimeter  pint (pt)  pound (lb)  protractor  quart (qt)  ray  reflex angle  right angle  straight angle  sum  ton  weight  yard (yd)  **CALENDAR FOCUS:**  Draw 2-d figures with symmetry  Length, Capacity, Weight | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 11**  Lessons 1-10  **Chapter 12**  Lessons 1-6  **Chapter 13**  Lessons 1-5  **Chapter 14**  **Lessons 3-7**  **Homework**  Week 25  Spiral HW |
| **Math Staff Development**  2/18  **Special Days:**  2/15 Student Holiday |

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| **Week 26 – February 22-26, 2016**  **Unit – 7- Measurement**  **Essential Questions**   * How do we measure angles? * How do we draw angles? * How do you recognize that an angle is measured with reference to a circle with its center at the common endpoint of the rays? * How do we explain angle measure as additive? * How do we find unknown angles | **AKS**  33.MD.1 know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. (e.g., know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2,24), (3, 36),... | **Exemplar/**  **Problem Solving**  GCPS Lesson Circles and Angles | **Vocabulary**  acute angle  additive  angle  angle ruler  arc  area  centimeter(cm)  circle  cup (c)  data  data set  decompose  degree  endpoint  foot (ft)  gallon (gal)  gram (g)  interior angle  intersect  kilogram (kg)  kilometer (km)  line plot  liter (L)  mass  meter (m)  metric  mile (mi)  milliliter (mL)  obtuse angle  ounce (oz)  perimeter  pint (pt)  pound (lb)  protractor  quart (qt)  ray  reflex angle  right angle  straight angle  sum  ton  weight  yard (yd) | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 11**  Lessons 1-10  **Chapter 12**  Lessons 1-6  **Chapter 13**  Lessons 1-5  **Chapter 14**  **Lessons 3-7** |
| **Math Staff Development**  **NONE**  **Special Days:**  Early Release  2/24 and 2/25 |
| **Teacher notes: Technology Resources**  **Instructional Support:** [**Youtube: Finding Angle Measures**](http://www.youtube.com/watch?v=MzonfT6-8t0)[**Youtube: Finding Missing Angles**](http://www.youtube.com/watch?v=z8BoVhTkaBw)  **Performance Based Task:** [**Word Problem Cards**](http://www.k-5mathteachingresources.com/support-files/anglewordproblems.pdf)[**How Many Degrees?**](http://www.k-5mathteachingresources.com/support-files/hiwmanydegrees.pdf) [**Angles in a Right triangle**](http://www.k-5mathteachingresources.com/support-files/anglesinarighttriangle.pdf) **Student Practice:** [**Banana Hunt**](http://www.oswego.org/ocsd-web/games/bananahunt/bhunt.html)[**Alien Angles**](http://www.mathplayground.com/alienangles.html) | **ASSESSMENT**  **TOTD - #25 and #26** | **CALENDAR FOCUS:**  Draw 2-d figures with symmetry  Length, Capacity, Weight | **Homework**  Week 26  Spiral HW |

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| **Week 27 – February 29-March 4, 2016**  **Unit – 7- Measurement**  **Essential Questions**   * How do we solve problems using line plot? * How do we create line plots? | **AKS**  39.MD.4 make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8) Solve problems involving addition and subtraction of fractions by using information presented in line plots (e.g., from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection) | **Exemplar/**  **Problem Solving**  GCPS  Lesson Plan  Line Plots  <https://gcps.desire2learn>.  com/d2l/home/7023 | **Vocabulary**  Line plots  Data | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 11**  Lessons 1-10  **Chapter 12**  Lessons 1-6  **Chapter 13**  Lessons 1-5  **Chapter 14**  **Lessons 3-7** |
| **Math Staff Development**  3/3  **Special Days:**  2/29-3/3  ELA, MA, SC, SS-DA’s |
| **Teacher notes: Technology Resources**  **Instructional Support:** [**Interactive Line Plots**](http://www.learner.org/courses/learningmath/data/session5/part_c/index.html)[**Youtube: Line Plots With Fractions**](http://www.youtube.com/watch?v=WS0aI6-mnzg)[**Youtube: Make & Interpret Line Plots**](http://www.youtube.com/watch?v=L-spnWWAWbo)  **Performance Based Task:** [**Line Plots: Frogs in Flight**](http://www.nsa.gov/academia/_files/collected_learning/elementary/data_analysis/line-plots_frogs-in-flight.pdf)[**Length of Ants Line Plot**](https://docs.google.com/file/d/0B9vx0dToowQXMzc1MGY1NjctYzA1My00Y2ViLWJkOTMtOWRlY2I2NmZmZjEx/edit?hl=en_US&pli=1)[**Bugs, Giraffes, Elephants and More...**](https://docs.google.com/file/d/0B9vx0dToowQXSWpIYWVTUVlHclk/edit?pli=1)  **Student Practice:** [**Line Plots Game**](http://www.to14.com/game.php?id=4d486a31e9586)[**Line Plot Practice**](http://www.glencoe.com/sites/common_assets/mathematics/mc2/cim/interactive_labs/M2_02/M2_02_dev_100.html)[**Reading Line Plots (1)**](http://commoncoresheets.com/Math/Line%20Plots/Reading%20-%20E/Line%20Plots-Reading%20-%20E-All.pdf)[**Reading Line Plots (2)**](http://commoncoresheets.com/Math/Line%20Plots/Reading%20-%20E/Line%20Plots-Reading%20-%20E-2.pdf)[**Matching Graphs to Line Plots**](http://commoncoresheets.com/Math/Line%20Plots/Graphs%20to%20Plots/Graphs%20to%20Plots-All.pdf)  [**Interpret Line Plots (1)**](http://commoncoresheets.com/Math/Line%20Plots/Interpreting%20-%20E/Line%20Plots-Interpreting%20-%20E-All.pdf)[**Interpret Line Plots (2)**](http://commoncoresheets.com/Math/Line%20Plots/Interpreting%20-%20M/Line%20Plots-Interpreting%20-%20M-All.pdf)[**Interpret Line Plots (3)**](http://commoncoresheets.com/Math/Line%20Plots/Interpreting%20-%20H/Line%20Plots-Interpreting%20-%20H-All.pdf) | **ASSESSMENT**  **TOTD - #27** | **CALENDAR FOCUS:**  **Quadrilaterals & angle measurement**  **Length, Capacity, Weight** | **Homework**  Week 27  Spiral HW |

**Arcado Fourth Grade Math Framework 4th Nine Weeks 2015-2016**

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| **Week 28– March 7-11, 2016**  **Unit – 7 Measurement**  **Essential Questions**   * How do we apply the area and perimeter formulas for rectangles in real world and mathematical problems? * How do we find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor? | **AKS**  38.MD.3 apply the area and perimeter formulas for rectangles in real world and mathematical problems (e.g., find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor) | **Exemplar/Problem Solving**  [Carpet Caper](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/diff_math/pdfs/task106.pdf?_&d2lSessionVal=h1JMzhjDePhgFUC4PFyRpWTVP&ou=58323) | **Vocabulary**  Area  Perimeter  Formula  Length  Width  Unit | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 11**  Lessons 1-10  **Chapter 12**  Lessons 1-6  **Chapter 13**  Lessons 1-5  **Chapter 14**  **Lessons 3-7** |
| **Math Staff Development**  3/10 |
| **Teacher notes:** [**Youtube: Area of Complex Figures**](http://www.youtube.com/watch?feature=player_embedded&v=gXNum7RnQYo)[**Areas of Rectangles**](http://www.nzmaths.co.nz/resource/areas-rectangles)[**Using Square Units**](http://learnzillion.com/lessons/1154-cover-the-area-of-a-shape-using-square-units)[**Find the Length**](http://learnzillion.com/lessons/1672-use-squares-to-find-side-length-of-a-square)[**Find the Perimeter with Missing Lengths**](http://learnzillion.com/lessons/1320-find-perimeter-with-missing-side-lengths)  **Performance Based Task:** [**Shape Up!**](http://balancedassessments.concord.org/docs/e009.pdf)[**Gardens of Delight**](http://balancedassessments.concord.org/docs/e019.pdf)[**Deer in the Park**](http://ccsstoolbox.agilemind.com/parcc/elementary_3770_1.html)[**Finding the Area**](http://fcit.usf.edu/math/resource/perftsk2/multwhol.htm)[**The Incredible Shrinking Garden**](http://teacher.scholastic.com/maven/garden/index.htm)[**How Much Room?**](http://www.nzmaths.co.nz/resource/how-much-room?parent_node=)  **Student Practice:** [**Shape Surveyor**](http://www.funbrain.com/poly/index.html)[**Determine the Area & Perimeter**](http://www.bgfl.org/bgfl/custom/resources_ftp/client_ftp/ks2/maths/perimeter_and_area/index.html)[**Adam Ant: Perimeter**](http://www.beaconlearningcenter.com/WebLessons/AdamAnt/page1.htm)[**Area Explorer**](http://www.shodor.org/interactivate/activities/AreaExplorer/?version=1.6.0_05&browser=Mozilla&vendor=Sun_Microsystems_Inc.)[**Perimeter Explorer**](http://www.shodor.org/interactivate/activities/PerimeterExplorer/)[**Area of Parallelograms**](http://www.xpmath.com/forums/arcade.php?do=play&gameid=11#.UYc7W6LFWSo)[**Find the Area**](http://www.bbc.co.uk/bitesize/ks3/maths/measures/area/activity/)  [**Perimeter**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/perimeter.htm)[**Area of a Parallelogram**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/area-parallelogram.htm)[**Area of Squares & Rectangles**](http://www.buzzmath.com/Docs/#CC06E150) | **ASSESSMENT**  **TOTD - #\_28\_\_** | **CALENDAR FOCUS:**  Solve problems using line plots | **Homework**  Week 28  Spiral HW |
| **Special Days:**  3/11 Student Holiday |

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| **Week 29 – March 14-18, 2016**  **Unit – 7 Measurement**  **Essential Questions**   * How are fluid ounces, cups, pints, quarts, and gallons related? * How can fluid ounces, cups, pints, quarts, and gallons be used to measure capacity? * How can we estimate and measure capacity? * How do we compare customary measures of fluid ounces, cups, pints, quarts, and gallons?   How do we compare metric measures of milliliters and liters? | **AKS**  33.MD.1 know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. (e.g., know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2,24), (3, 36),... | **Exemplar/Problem Solving**  GCPS  Lesson Plan  Capacity  <https://gcps.desire2learn>.  com/d2l/home/7023 | **Vocabulary**  cup  pint  quart  gallon  liter  milliliter  capacity  fluid ounces  half gallon  estimate (estimating) | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 11**  Lessons 1-10  **Chapter 12**  Lessons 1-6  **Chapter 13**  Lessons 1-5  **Chapter 14**  **Lessons 3-7** |
| **Math Staff Development**  3/17 |
| **Teacher notes:**  **Instructional Support:** [**Cups, Pints, Quarts, and Gallons**](http://www.youtube.com/watch?feature=player_embedded&v=GSCjrDLIvjc)[**Youtube: Customary Capacity**](http://www.youtube.com/watch?v=RpRC78Cwz0c)  **Performance Based Task:**[**How Much Cereal?**](http://www.nzmaths.co.nz/resource/how-much-cereal?parent_node=)[**Party Volumes**](http://www.nzmaths.co.nz/resource/party-volumes?parent_node=)[**Making Benchmarks with Volume**](http://www.nzmaths.co.nz/resource/making-benchmarks-volume?parent_node=)  **Student Practice:** [**Cups to Quarts Matching**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementCups.htm)[**Artie Ounces Soda Machine**](http://mrnussbaum.com/soda-play/)[**Liters & Milliliter Matching**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementLiters.htm) | **ASSESSMENT**  **TOTD - #\_29\_\_** | **CALENDAR FOCUS:**  Quadrilaterals Angle measurement  Length, capacity, weight | **Homework**  Week 29  Spiral HW |
| **Special Days:**  3/17  St. Patrick’s Day |

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| **Week 30– March 21-25,2016**  **Unit – 7 Measurement**  **Essential Questions**   * How are fluid ounces, cups, pints, quarts, and gallons related? * How can fluid ounces, cups, pints, quarts, and gallons be used to measure capacity? * How can we estimate and measure capacity? * How do we compare customary measures of fluid ounces, cups, pints, quarts, and gallons? * How do we compare metric measures of milliliters and liters? * How do we use the four operations to solve problems involving different measurements in the   real world? | **AKS**  33.MD.1 know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. (e.g., know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2,24), (3, 36),...  36.MD.2 use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale | **Exemplar/**  **Problem Solving**  [**Got Milk?**](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/Exemplars/Math%20II/html/task375.html?ou=58323) | **Vocabulary**   |  | | --- | | cup  pint  quart  gallon  liter  milliliter  capacity  fluid ounces  half gallon  estimate  Add, budget, capacity, compare, cup, customary system, difference, divide, equal, equivalent  fractions, fraction, gallon, multiply, ounce, pound, quart, sum, and total | |  | |  | |  | |  | |  | |  | |  | | **Textbook Resources**  **McGraw-Hill/ My Math**  **Chapter 11**  Lessons 1-10  **Chapter 12**  Lessons 1-6  **Chapter 13**  Lessons 1-5  **Chapter 14**  **Lessons 3-7** |
| **Math Staff Development**  3/24 |
| **Teacher notes:**  **Instructional Support:** [**Cups, Pints, Quarts, and Gallons**](http://www.youtube.com/watch?feature=player_embedded&v=GSCjrDLIvjc)[**Youtube: Customary Capacity**](http://www.youtube.com/watch?v=RpRC78Cwz0c)  **Performance Based Task:**[**How Much Cereal?**](http://www.nzmaths.co.nz/resource/how-much-cereal?parent_node=)[**Party Volumes**](http://www.nzmaths.co.nz/resource/party-volumes?parent_node=)[**Making Benchmarks with Volume**](http://www.nzmaths.co.nz/resource/making-benchmarks-volume?parent_node=)  **Student Practice:** [**Cups to Quarts Matching**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementCups.htm)[**Artie Ounces Soda Machine**](http://mrnussbaum.com/soda-play/)[**Liters & Milliliter Matching**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementLiters.htm) | **ASSESSMENT**  **TOTD - #\_\_30\_and 31\_\_** | **CALENDAR FOCUS:**  Quadrilaterals & angle measurement  Length, Capacity, Weight | **Homework**  Week 30  Spiral HW |
| **Special Days:**  3/24 Reading Rocks Night!!! |

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| **Week 31 – March 28- April 1, 2016**  **Unit – 7 Measurement**  **Essential Questions**   * How do we use the four operations to solve problems involving different measurements in the real world? | **AKS**  36.MD.2 use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale | **Exemplar/**  **Problem Solving**  Measuring Penny/ GCPS  Lesson Plan  Measurement Conversions  <https://gcps.desire2learn>.  Com/d2l/home/7023 | **Vocabulary**   |  | | --- | | Add, budget, capacity, compare, cup, customary system, difference, divide, equal, equivalent  fractions, fraction, gallon, multiply, ounce, pound, quart, sum, and total | |  | |  | |  | |  | |  | |  | |  | | **McGraw-Hill/ My Math**  **Chapter 11**  Lessons 1-10  **Chapter 12**  Lessons 1-6  **Chapter 13**  Lessons 1-5  **Chapter 14**  **Lessons 3-7** |
| **Math Staff Development**  3/31 |
| **Teacher notes:**  **Instructional Support:** [**Measurement Literature**](http://teachersnetwork.org/teachnet-lab/miami/2004/concepcion/index.htm)[**Intro to Metric System**](http://www.youtube.com/watch?feature=player_embedded&v=MekxJse2vgs)[**Metric & Standard Measurement**](http://www.youtube.com/watch?feature=player_embedded&v=DQPQ_q59xyw)[**Convert Units of Measure**](http://www.youtube.com/watch?feature=player_embedded&v=rEV2ECFCdPU)[**Metric Conversion Rap**](http://www.youtube.com/watch?v=IhtgKHYZti0)  [**Tools of Measurement**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/tools-measurement.htm)[**Units of Measurement**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/units-of-measurement.htm) | **ASSESSMENT**  [Common Assessment Measurement](https://instruction.gwinnett.k12.ga.us/d2l/le/content/58323/viewContent/435270/View) | **CALENDAR FOCUS:**  **Review for MILESTIONES** | **Homework**  Week 31  Spiral HW |
| **Special Days:**  4/1 Student/Teacher Holiday  4/4-4/8 Spring Break |

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| **Week 32-April 11-15, 2016**  **Unit - Essential Questions**  **REVIEW FOR MILESTONES** | **AKS**  **REVIEW FOR MILESTONES** | **Exemplar/**  **Problem Solving**  NONE | **Vocabulary**  **REVIEW for MILESTONES** | **Textbook Resources**  **REVIEW FOR MILESTONES** |
| **Math Staff Development**  4/14 |
| **Teacher notes:**  **Performance Based Task:**[**Fermi Four**](http://balancedassessments.concord.org/docs/e011.pdf)  **Student Practice:** [**Sheppardsoftware: Matching Measurement**](http://www.sheppardsoftware.com/mathgames/measurement/BestMeasure2.htm)[**Jack the Builder**](http://www.bgfl.org/bgfl/custom/resources_ftp/client_ftp/ks2/maths/measures/index.htm)[**Mixed Measurement Review**](http://www.buzzmath.com/Docs/#F6KME705&page=1)  ***Weight:***  **Performance Based Task:**[**Weighing Stations**](http://www.nzmaths.co.nz/resource/weighing-stations?parent_node=)[**Great Grams**](http://www.nzmaths.co.nz/resource/great-grams?parent_node=)[**Making Benchmarks with Mass**](http://www.nzmaths.co.nz/resource/making-benchmarks-mass?parent_node=)[**Supermarket Shopping**](http://www.nzmaths.co.nz/resource/supermarket-shopping?parent_node=)[**Making a Kilogram**](http://www.k-5mathteachingresources.com/support-files/making-a-kilogram.pdf)  **Student Practice:** [**Alien Weigh-In**](http://www.crickweb.co.uk/ks2numeracy-shape-and-weight.html)[**Boxing Weigh-In**](http://www.crickweb.co.uk/ks2numeracy-shape-and-weight.html#quad)[**Sheppardsoftware: Ounces to Pounds**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementOunces.htm)[**Mostly Postie**](http://www.ictgames.com/mostlyPostie.html)[**Scales Reader (Metric)**](http://www.ictgames.com/weight.html)[**Metric Weight Matching**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementGrams.htm)[**Alien Cookbook**](http://www.bbc.co.uk/schools/starship/maths/games/alien_cookbook/big_sound/full.shtml)  [**Harbor Measurements**](http://www.bbc.co.uk/bitesize/ks1/maths/length_and_weight/play/)[**Found Pounds**](http://illuminations.nctm.org/Lessons/FoundPounds/FoundPounds-AS.pdf)[**Weight Showdown**](https://isharesps.org/websitedoc/CIA/Mathematics/ElemCoopLearnAct/Showdown/Gr4,Showdown,Weight,Sec11.1.pdf)  [**http://www.coolmath-games.com/**](http://www.coolmath-games.com/)  [**https://www.brainpop.com/**](https://www.brainpop.com/)  [**https://www.mobymax.com/signin**](https://www.mobymax.com/signin) | **ASSESSMENT**  **Common Assessment Measurement** | **CALENDAR FOCUS:**  **REVIEW for MILESTONES** | **Homework**  Week 32  Spiral HW |
| **Special Days:**  4/14-4/29 Milestones Window |

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| **Week 33 – April 18-22, 2016** | **AKS**  Review all previous CCAKS | **Exemplar/**  **Problem Solving**  Review all previous CCAKS | **Vocabulary**  Review all previous CCAKS | **Textbook Resources**  Review all previous CCAKS |
| **Math Staff Development**  4/21 |
| **Teacher notes:**  **Instructional Support:** [**How to Use a Ruler**](http://www.youtube.com/watch?feature=player_embedded&v=b-HSXTE0E9g)[**Reading a Ruler**](http://www.youtube.com/watch?feature=player_embedded&v=f0t0WPHcHUg)[**Inches, Feet, Miles Song**](http://www.youtube.com/watch?feature=player_embedded&v=Yykkh4ba1vA)[**Convert Metric Length**](http://www.youtube.com/watch?feature=player_embedded&v=w7--f3Jf-vo)[[**NZMaths: Worms & More**](http://www.nzmaths.co.nz/resource/worms-and-more?parent_node=)](http://www.nzmaths.co.nz/length-units-work?parent_node=)  **Performance Based Task:** [**How big are we?**](http://fcit.usf.edu/math/resource/perftsk3/big.htm)  **Student Practice:**[**Measure Length**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/measure-length.htm)[**Customary Units of Length**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/units-of-length.htm)[**Measure It!**](http://www.funbrain.com/measure/index.html)[**Sleuths on the Loose**](http://pbskids.org/cyberchase/math-games/sleuths-on-the-loose/)[**Inches & Feet Matching**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementInches.htm)[**Feet & Yards Matching**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementYards.htm)[**Measurement Mania**](http://www.sheppardsoftware.com/mathgames/measurement/measurement_mania_imperial.htm)  [**The Ruler Game**](http://www.rickyspears.com/rulergame/)[**Convert Length**](http://www.buzzmath.com/Docs/#CC06E146)[**Metric Length Matching**](http://www.sheppardsoftware.com/mathgames/measurement/MeasurementMeters.htm)[**Metric Measurement Mania**](http://www.sheppardsoftware.com/mathgames/measurement/measurement_mania_metric.htm)[**Space Object Measure**](http://www.bbc.co.uk/bitesize/ks2/maths/shape_space/measures/play/popup.shtml)  [**http://www.coolmath-games.com/**](http://www.coolmath-games.com/)  [**https://www.brainpop.com/**](https://www.brainpop.com/)  [**https://www.mobymax.com/signin**](https://www.mobymax.com/signin) | **ASSESSMENT**  **TOTD - #\_\_32\_and 33\_\_** | **CALENDAR FOCUS:**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Homework**  Week 33  Spiral HW |
| **Special Days:**  4/14-4/29 Milestones Window |

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| **Week 34 –April 25- 29, 2016**  **Unit - Review**  **Essential Questions**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **AKS**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Exemplar/**  **Problem Solving**  Posttest Exemplar  “Collections” | **Vocabulary**   |  | | --- | | Review 4TH Grade CCAKS and preview 5th grade CCAKS | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | **Textbook Resources**  Review 4TH Grade CCAKS and preview 5th grade CCAKS |
| **Math Staff Development**  4/28 |
| **Teacher notes:**  **Instructional Support:** [**Time Conversion**](http://www.onlinemathlearning.com/convert-time.html)[**Elapsed Time**](http://www.onlinemathlearning.com/find-elapsed-time.html)[**Find End Time**](http://www.onlinemathlearning.com/find-end-time.html)[**Interactive Clock**](http://www.shodor.org/interactivate/activities/ElapsedTime/?version=unknown&browser=Mozilla&vendor=unknown)[**Blank Clock Faces**](http://www.k-5mathteachingresources.com/support-files/clockfaces.pdf)  **Student Practice:**[**Tell Time**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/tell-time.htm)[**Covert Units of Time**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/converts-units-time.htm)[**Elapsed Time**](http://studyjams.scholastic.com/studyjams/jams/math/measurement/elapsed-time.htm)[**Clock Practice**](http://www.mathslice.com/time-slice.html)[**What Time Will it Be?**](http://www.sadlier-oxford.com/math/mc_manipulative.cfm?sp=student&tp=grade&grade=3&id=117#activity)[**Bedtime Bandits**](http://mrnussbaum.com/bedtime-2/bedtime/)[**Time Conversion**](http://www.onlinemathlearning.com/time-conversion.html)  [**http://www.coolmath-games.com/**](http://www.coolmath-games.com/)  [**https://www.brainpop.com/**](https://www.brainpop.com/)  [**https://www.mobymax.com/signin**](https://www.mobymax.com/signin) | **ASSESSMENT**  **TOTD Week #34** | **CALENDAR FOCUS:**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Homework**  Week 34  Spiral HW |
| **Special Days:**  4/14-4/29 Milestones Window |

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| **Week 35 – May 2-6, 2016**  **Unit - Review**  **Essential Questions**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **AKS**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Exemplar/**  **Problem Solving**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Vocabulary**   |  | | --- | | Review 4TH Grade CCAKS and preview 5th grade CCAKS | |  | |  | |  | |  | |  | |  | | **Textbook Resources**  Review 4TH Grade CCAKS and preview 5th grade CCAKS |
| **Math Staff Development**  5/5 |
| **Teacher notes:**  [**http://www.coolmath-games.com/**](http://www.coolmath-games.com/)  [**https://www.brainpop.com/**](https://www.brainpop.com/)  [**https://www.mobymax.com/signin**](https://www.mobymax.com/signin) | **ASSESSMENT**  **Other - BIG 20 Posttest** | **CALENDAR FOCUS:**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Homework**  Week 35  Spiral HW |
| **Special Days:**  Art, Music, PE SPG’s  5/2-5/6 |

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| **Week 36 – May 9-13, 2016**  **Week 37- May 16-20, 2016**  **Unit - Review**  **Essential Questions**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **AKS**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Exemplar/**  **Problem Solving**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Vocabulary**   |  | | --- | | Review 4TH Grade CCAKS and preview 5th grade CCAKS | |  | |  | |  | |  | |  | |  | | **Textbook Resources**  Review 4TH Grade CCAKS and preview 5th grade CCAKS |
| **Math Staff Development**  5/12 and 5/19 |
| **Teacher notes:**  **Instructional Support:** [**Angles in a Circle**](http://www.youtube.com/watch?v=oQBwzcgNRXY)  **Performance Based Task:** [**Predicting & Measuring Angles**](https://docs.google.com/file/d/0B9vx0dToowQXNTc2ZDE0MWYtMzA0MS00YzViLTg5YmItNjZmNjJlODJjMjNm/edit?hl=en_US&pli=1)[**Angles in Names**](https://docs.google.com/file/d/0B9vx0dToowQXZWVkY2NjNzEtZTUwOC00MGQyLThiYzYtNTAzOTY5MGYyNDMy/edit?hl=en_US&pli=1) **Student Practice:** [**Kung Fu Angles**](http://www.bbc.co.uk/keyskills/flash/kfa/kfa.shtml)  [**http://www.coolmath-games.com/**](http://www.coolmath-games.com/)  [**https://www.brainpop.com/**](https://www.brainpop.com/)  [**https://www.mobymax.com/signin**](https://www.mobymax.com/signin) | **ASSESSMENT** | **CALENDAR FOCUS:**  Review 4TH Grade CCAKS and preview 5th grade CCAKS | **Homework**  Week 36  Spiral HW |
| **Special Days:**  5/9-5/12  ELA, MA, SC, SS  DA’s  5/25 Last Day of School!!! |