Alloway Township School
Home of the Tigers

Amy Morley
Chief School Administrator

Kimberly Fleetwood
Business Administrator

Grade 5 Unit 2 — Dates: 10/17/2024 - 12/17/2024

Rationale for Unit 2 Expectations

The focus of unit 2 is to understand place value to the thousandths place and apply that knowledge to various decimal concepts. This concept builds on students' grade 4 understanding of decimals to the hundredths place. After examining the quantitative relationships that exist between the digits in place value positions of a multi-digit number (analyzing and explaining patterns in the number of zeros and the placement of the decimal point in the context of multiplying by powers of 10), learners read, write, and compare decimals to the thousandths place. Learners use base-ten numerals, number names, and expanded form to represent multi-digit numbers with decimals.

Later on in the unit, learners apply their previous understandings of adding and subtracting to add and subtract decimals to the hundredths place using models and reasoning about decimals. Using knowledge gained through decimal operations, learners build upon many fraction concepts developed in earlier grades. They use fraction equivalence from grades 3 and 4 to add and subtract fractions with unlike denominators. Learners solve word problems involving addition and subtraction of fractions, using benchmark fractions and number sense of fractions to estimate mentally and to assess the reasonableness of their answers.

Unit 2 Description & Expectations

Days of Instruction: 39 days (iReady sessions, Unit Review, Unit Assessment, Math In Action, Prerequisites)
Unit Completion Date: 12/17
Unit Topics/Themes: Decimal and Fraction Operations (Addition and Subtraction)

Topic: Lesson 6 - Understand Decimal Place Value
Topic: Lesson 7 - Understand Powers of 10

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Topic: Lesson 8 - Read and Write Decimals

Topic: Lesson 9 - Compare and Round Decimals

Topic: Mid-Unit Review and Assessment

Topic: Lesson 10 - Add Decimals

Topic: Lesson 11 - Subtract Decimals

Topic: Lesson 12 - Add Fractions

Topic: Lesson 13 - Subtract Fractions

Topic: Lesson 14 - Add and Subtract in Word Problems

Topic: Math In Action

Topic: Unit Review and Unit Assessment

Whole Group Instruction	Differentiation: Teacher Table	Differentiation: Independent Practice/Small Group Center
Guidelines		
30-45 minutes of daily instruction using Core Resources	**30-45 minutes of daily differentiation**	
Number Sense Making Routines: (5-10 minutes daily) Number sense is built through experiences. Vary your sense making routines based on the needs of your classroom. They may be a whole group activity, but they also may be done as a small group depending upon the need. Example areas of focus: Verbal Counting, Object Counting, Cardinality,	**Number of groups to meet with each day: two** When planning for differentiation, it is important to	Activities should be aligned to specific skills & standards addressed during whole group instruction and practice of fluency standards.

Subitizing, Spatial Relationships, One/Two More & Less, Benchmark Numbers, Part-Part-Whole, Magnitude, etc. **Core Resource for Whole Group Instruction:** Ready Classroom Math (30-45 minutes daily) Ready Classroom Math design & expectations: ● **Understand Lessons** - Focus on developing conceptual understanding and help students connect new concepts to familiar ones as they learn new skills and strategies. ● **Strategy Lessons** - Focus on helping students persevere in solving problems, discuss solution strategies, and compare multiple representations through the *Try-Discuss-Connect* routine. Strategy Lessons are taught over multiple days (usually 3-5 days) and consist of different sessions. ○ ***Explore Session***(s) follow the *Try-Discuss-Connect Routine* and draw on students' prior knowledge and make connections to new concepts. ○ ***Develop Session***(s) develop strategies and understanding through problem solving and discourse. ○ ***Refine Session***(s) are when students work independently with a partner, while the teacher monitors performance and differentiates instruction. ● **Math in Action Lessons (Grades 2-6)** - Feature open-ended problems with many points of entry and more than one possible solution. In Math in	first think about what each student needs. You may have different focuses for different groups of students. Below are suggestions to consider when planning for small group differentiated instruction. **Gifted Students:** When planning for students who are gifted, consider differentiating the content, process or product. **Tier I Remedial Groups:** When planning for remedial work (additional work on grade level concepts), identify your Essential Understandings, Objectives, Standards, skills being taught, and Learner Outcomes, then, anticipate the most <u>common unique needs and common misconceptions</u>. Doing this will help you to plan effectively, and form groups based on daily exit tickets and	

Action Lessons students apply strategies and build procedural fluency. *Try - Discuss - Connect Routine* is primarily used in Explore and Develop Sessions in Ready Math. Each Step in this routine will have expected Language Routines, Teacher Moves and Conversation Tips. *Language Routines* are predictable, repeatable formats that help students process word problems and communicate their growing understanding. *Teacher Moves* are powerful facilitation techniques to guide conversations in which students talk with each other rather than responding to the teacher. *Conversation Tips* are specific hints that show students what it means to engage in academic discourse. The six tips show students what it means to participate in academic discourse: listening attentively, explaining ideas, justifying, building on the ideas of others, disagreeing respectfully and making connections. ● **Try It** - The teacher displays the *Start* question to draw on prior knowledge to the day's session. The teacher guides students in making sense of the problem, and to slow down to recognize and understand important information in the problem before beginning to solve. Teacher displays the problem and uses: ○ *Language Routines* - Three Reads, Co-Crafted Questions, Notice/Wonder and Say It Another Way ○ *Teacher Moves* - Turn & Talk and Individual Think Time (*Typically 10 seconds to 2 minutes*) Students apply what they have learned while making sense of the	Ready Unit Prerequisite Report. Support students using scaffolding and/or additional practice for grade level concepts and skills. **Tier II or Tier III Remedial Groups**: When planning your grade level instruction for students that are in Tier II or Tier III considerations of each individual students' Math Intervention Plan need to be taken. Interventions and number sense relationships should be leveraged to support students with grade level content (bridging foundational concepts to support students' work at grade level content). Resources should be aligned to core content instructional resources (ie, Tools for Instruction, Fluency Skills & Practice pages, Prerequisite	

problem to represent the situation using a Part-Part-Whole model and begin solving. ● **Discuss It** - Students work in pairs to share their thinking - even incomplete thinking. Students should analyze their representations and strategies while using sentence frames when appropriate. The teacher strategically selects and sequences students' representations and strategies based upon the learning goal of the lesson. While circulating the teacher should use: ○ *Language Routines* - Compare & Contrast and Collect & Display ○ *Teacher Moves* - Turn & Talk, Individual Think Time and Four Rs (*Repeat, Reword, Rephrase, Record*) Selected students present and explain their solution methods and listen to critiques of others. The teacher facilitates the discussion and the class looks at highlighted strategies in the *Picture It* and *Model It* sections. ● **Connect It** - The teacher and students connect representations and strategies using a combination of individual work time and partner and whole-class discourse. Carefully selected questions lead students to recognize important mathematical ideas that were initially presented in the **Try It** problem. The teacher should use: ○ *Language Routines* - Collect & Display and Compare & Connect ○ *Teacher Moves* - Turn & Talk, Individual Think Time and Four Rs **Closing: (2-5 minutes daily)** The closure should be directly related to the goal of the lesson. Formal	Lessons, Reteach Activities, Vocabulary pages, etc.), while a direct explicit connection between intervention strategies and grade level content is built.	

closure to lessons may consist of synthesizing information learned during the lesson that relates to the objective. For example, students could share with the class something new that they learned that day (the question should be detailed and related to the goal/objective), complete an exit ticket (related to the goal/objective), reflect on what challenged them (related to the goal/objective), etc.		
Whole Group Instruction	**Differentiation: Teacher Table**	**Differentiation: Independent Practice/Small Group Center**
Unit Resources		
● Suggested Pacing Guide ● Ready Unit Flow and Progression Video ● Ready Math Background: Models, Progressions, and Teaching Tips ● Ready Interactive Tutorials ● Ready Unit Self Reflection ● Ready Unit Review ● Ready Discourse Cards/Cube ● Ready Digital Math Tools ● Silent Hand Signals ● Georgia Frameworks (K-5) ● Howard County, MD: ○ Gr 5	● Scheduling Small Groups and Rotations ● CFAs ● RCM Fluency Practice Pages ● RCM Prerequisite Lessons ● RCM Tools for Instruction Lessons ● RCM Discourse Bookmarks ● K-5 Math Teaching Resources (no direct links to free documents!) ● Virtual Manipulatives:	● Scheduling Small Groups and Rotations ● RCM Unit Game ● RCM Literacy Connections Activities ● RCM Discourse Bookmarks ● K-5 Math Teaching Resources (no direct links to free documents!) ● Howard County, MD: ○ Gr 5

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● Achieve the Core Coherence Map ● Illustrative Mathematics ● Mindset Mathematics (Gr 3-6) by Jo Boaler ● You Cubed ● San Francisco Unified School District (SFUSD) ○ Gr 5 ● Three Act Tasks: ○ Ms. Castillo's Math (K-5) ○ Graham Fletcher (K-6) ○ Robert Kaplinsky (K-6) ○ Jon Orr (Gr 3-6) ○ Kyle Pearce (Gr 3-6) ● Sense Making Routines: ○ Subitizing Slides (Steve Wyborney) ○ Estimation 180 (Andrew Stadel) ○ Esti-Mysteries (Steve Wyborney) ○ Even More Esti-Mysteries (Steve Wyborney) ○ Estimation Clipboard (Steve Wyborney) ○ Which One Doesn't Belong (Christopher Danielson) ○ Math Visuals (Berkley Everett) ○ Would You Rather...? (John Stevens)	○ K6-TheMathLearningCenter - ten frames, counters, time, number line, math rack, geoboards ○ Brainingcamp ○ SplatSquare-InteractiveHundredsChart ○ Dreambox Teacher Tools	

○ Numberless Word Problems (Brian Bushart) ○ Number Talk Images (Tracey Zager & Pierre Tranche) ○ Daily Routines to Jumpstart Math Class (Curriculum Shared Drive) ○ Clothesline Math (Dan Kaufmann) ○ Math Spy (Dan Kaufmann) ○ Same or Different (Brian Bushart) ○ Same But Different (Sue Looney) ○ Splat (Steve Wyborney) ○ Open Middle (Robert Kaplinsky)		
Whole Group Instruction	**Differentiation: Teacher Table**	**Differentiation: Independent Practice/Small Group Center**
Assessments		
● Ready Unit Assessments ● Ready Lesson Quizzes ● Ready - Math In Action ● CFAs ● Exit Tickets	● Daily log of small group instruction ● Anecdotal Notes ● Grade Level Math Interview ● CFAs ● RCM Fluency Practice Pages ● RCM Prerequisite Lessons	Examples of accountability measures: Recording sheets, Fluency Practice Pages, exit tickets, rubrics, reflections, etc.

	● RCM Tools for Instruction Lessons ● Exit Tickets ● Achieve the Core Coherence Map ● Illustrative Mathematics	

Standards

5.NBT.A.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. 5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. 5.NBT.A.3 Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000). b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. 5.NBT.A.4 Use place value understanding to round decimals to any place. 5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of	In addition to Whole Group Standards, you may choose to focus on grade level fluency standards or other priority standards listed below: ****Unit 2 Center Focuses:** **4.NBT.A.3** Use place value understanding to round multi-digit whole numbers to any place. **4.NBT.B.4** With accuracy and efficiency add and subtract multi-digit whole numbers using the standard algorithm. **4.NF.A.1** Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ 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.

operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. **BENCHMARKED Unit 3* 5.NF.A.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)* * Visual fraction models include tape diagrams, number lines, and area models (See Glossary). Set models, including those defined as the whole, are excluded at this grade. 5.NF.A.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.* * Visual fraction models include tape diagrams, number lines, and area models (See Glossary). Set models, including those defined as the whole, are excluded at this grade.	

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Unit 2 Math Pacing Guide

	Topic: Lesson 6 - Understand Decimal Place Value Return to Top	
Student Learning Standard(s):	**5.NBT.A.1**	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.2 Reason abstractly and quantitatively. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.4 Model with Mathematics. • MP.5 Use appropriate tools strategically. • MP.6 Attend to precision. • MP.7 Look for and make use of structure. • MP.8 Look for and express regularity in repeated reasoning.	
Days: 3 10/17 - 10/21	**Focus**: (Major Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: • Recognize that place value in a decimal number is based on the same base-ten concepts as whole numbers. • Identify the value of a digit in a number as 10 times the value it would have in the place to its right and 1/10 of the value it would have in the place to its left.	
Essential Question(s):	How does the position of a digit in a large number affect its value?	

Core Resources

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Core Whole Group Resources	Core Formative Assessment
Ready Classroom Math Lessons **Lesson 6** Session 1: Model It WB pgs Session 2: Model It and Connect It WB pgs Session 3: Apply It ques 1-3 Materials: place value chart, base-ten blocks	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources

Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** -Session 1: Additional Practice WB pgs -Session 2: Additional Practice WB pgs, Fluency and Skills WS -Session 3: Apply It ques 4-5	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: Understand Decimal Place Value -RCM Center Activities -RCM Enrichment Activities - Howard County Tasks (Preferred Resources Tab) ● What's Your Value ● Guess the Value - Howard County Printable Center Activities (Student Centers Tab) ● Place Value Memory	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources -Georgia Framework: ● Unit 1 - Patterns Are Us ● Unit 2 - High Roller -Illustrative Math Tasks - Exit Tickets ● Howard County (Assessment Tab)

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Virtual Math Manipulatives • BraningCamp • Base ten blocks (decimals) • Base Ten Blocks Math Learning Center • Multi-row decimal PV chart • Place value chips	• Football Decimals • Place Value Made Easy • Place Value of Decimals Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources • Place Value Concentration	• 10x Larger and 10x Smaller: Generate Whole Numbers • 10x Larger: Evaluate and Explain Number Relationships in Whole Numbers • 10x and 1/10th the Value: Evaluate and Generate Whole Numbers • Shifting Right and Left: Demonstrate and Describe Patterns in Whole Numbers • Comparing Digit Values in Whole Numbers Using Place Value Patterns • Comparing Digit Values in Decimals Using Place Value Patterns • Use Place Value Patterns to Solve Problems with Decimals

Vocabulary for Students - Unit 2 Digital Word Wall			**Mentor Text List**
Base ten	Decimal	10 times the value	*Place Value by Danielle Carroll* *Place Value by Newbridge*
Place value	Thousandths	1/10 the value	

Topic: Lesson 7 - Understand Powers of 10 Return to Top

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Student Learning Standard(s):	**5.NBT.A.2**	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
Math Practices:	• MP.1 Make sense of the problem and persevere in solving them. • MP.2 Reason abstractly and quantitatively. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.4 Model with Mathematics. • MP.5 Use appropriate tools strategically. • MP.6 Attend to precision. • MP.7 Look for and make use of structure. • MP.8 Look for and express regularity in repeated reasoning.	
Days: 3 10/22 - 10/24	**Focus**: (Major Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: • Explain the relationship between the values of numbers when multiplying or dividing by powers of 10. • Explore the placement of the decimal point when multiplying or dividing a decimal by a power of 10. • Use exponents to denote powers of 10.	
Essential Question(s):	Are there patterns to big numbers?	

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**

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Ready Classroom Math Lessons **Lesson 7** *(*Skip questions that teach to move the decimal as the strategy)* Session 1: Model It WB pgs Session 2: Model It and Connect It WB pgs Session 3: Apply It ques 1-3 Materials: place value chart, base-ten blocks	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources

Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** (Skip questions that teach to move the decimal as the strategy) -Session 1: Additional Practice WB pgs -Session 2: Additional Practice WB pgs, Fluency and Skills WS -Session 3: Apply It ques 4-5	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: Understand Powers of 10 -RCM Center Activities -RCM Enrichment Activities - Howard County Tasks (Preferred Resources Tab) ● Exponents and Powers of Ten: ○ Powers of Ten ○ Populations ○ Exploring Exponents ● Multiplying and Dividing with Powers of Ten: ○ Just Add a Zero ○ Cadence's Problem	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources - Georgia Framework - Illustrative Math Tasks ● Marta's Multiplication Error ● Multiplying Decimals by 10 - Exit Tickets ● Howard County Assessment Tasks Tab

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Virtual Math Manipulatives • BrainingCamp • Base ten blocks (decimals) • Multi-row decimal PV chart	- Howard County Printable Center Activities (Independent Work Tab) • Dividing by Powers of 10 • Powers of 10 Patterns • Ten Times • Powers of 10 Matching Cards • Place Value Chart Decimal Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources • Multiplying a Whole Number by a Power of 10 • Multiplying a Decimal by a Power of 10	

Vocabulary for Students - Unit 2 Digital Word Wall			**Mentor Text List**
Base (of a power)	Decimal	10 times the value	*On Beyond a Million: An Amazing Math Journey by David M. Schwartz* *Millions, Billions, & Trillions: Understanding Place Value by David A. Adler* *Count To a Million by Jerry Pallotta* *If You Made a Million by David M. Schwartz*
Exponent	Power of 10	1/10 the value	

Topic: Lesson 8 - Read and Write Decimals **Return to Top**

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Student Learning Standard(s):	**5.NBT.A.3a**	Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).
Math Practices:	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.5 Use appropriate tools strategically. • MP.7 Look for and make use of structure.	• MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.

Days: 4 10/25 - 10/30	**Focus**: (Major Content)	**Benchmarked Standard:** N **Fluency Standard**: N

Critical Knowledge & Skills	
Objective:	**We are learning to**: • Read decimals to the thousandths place using base-ten numerals, number names, and expanded form. • Write decimals to the thousandths place using base-ten numerals, number names, and expanded form.
Essential Question(s):	How does the position of a digit in a small number affect its value?

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**

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Ready Classroom Math Lessons **Lesson 8** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Model It, and Connect It WB pgs Session 3 - Try It, Model It, and Connect It WB pgs Session 4 - Apply It Ques 1-3 Materials: base ten blocks, place value chart, number line	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources

Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** -Session 1 - Additional Practice WB pgs -Session 2 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 4 - Apply It Questions 4-6	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: n/a -RCM Center Activities -RCM Enrichment Activities - Howard County Tasks (Preferred Resources Tab) ● Read and Write Decimals: ○ Decimal Place Value Dice Pick Up ○ Base Ten Pick Up - Howard County Printable Center Activities (Independent Work Tab) ● Guess My Decimal	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources - Georgia Framework ● Decimal Designs ● Making “Cents” of Decimals ● In the Paper ● Decimal Garden - Illustrative Math Tasks - Exit Tickets ● Howard County Assessment Tasks Tab

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-3 Act Task: Final Lap -3 Act Task: Chasing Gold Virtual Math Manipulatives • BrainingCamp • Base ten blocks (decimals) • Multi-row decimal PV chart	• Identifying Decimals • Place Value • Decimals of the Caribbean • Decimal Puzzles • Decimals on a Number Line Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources • Hunt for Decimals • Representing Decimals • Comparing Decimals	

Vocabulary for Students - Unit 2 Digital Word Wall			**Mentor Text List**
Decimal	Expanded Form	Hundredth	*On Beyond a Million: An Amazing Math Journey by David M. Schwartz* *Millions, Billions, & Trillions: Understanding Place Value by David A. Adler* *Count To a Million by Jerry Pallotta* *If You Made a Million by David M. Schwartz*
Mixed Number	Tenth	Thousandth	

Topic: Lesson 9 - Compare and Round Decimals **Return to Top**

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Student Learning Standard(s):	**5.NBT.A.3b**	Read, write, and compare decimals to thousandths. b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
	5.NBT.A.4	Use place value understanding to round decimals to any place.
Math Practices:	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.5 Use appropriate tools strategically.	• MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.
Days: 4 11/1 - 11/6	**Focus**: (Major Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: • Use >, <, and = to compare decimals to the thousandths place. • Use place-value understanding to round decimals to the nearest hundredth, tenth, and whole number.	
Essential Question(s):	How does the position of a digit in a small number affect its value? When is estimation more appropriate than finding the 'right' answer? What are strategies to make a reasonable estimate?	

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**

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Ready Classroom Math Lessons **Lesson 9** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Model It, and Connect It WB pgs Session 3 - Try It, Picture It, and Model It WB pgs Session 4 - Apply It Ques 1-3 Materials: base ten blocks, place value chart, number line	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources

Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** -Session 1 - Additional Practice WB pgs -Session 2 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Connect, Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 4 - Apply It Questions 4-6	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: Compare and Round Decimals -RCM Center Activities -RCM Enrichment Activities - Howard County Tasks (Preferred Resources Tab) NBT.3b ● Compare Decimals: ○ Largest Number ○ The Great Pumpkin Race - Howard County Tasks (Preferred Resources Tab) NBT.4 ● Round and Estimate Decimals: ○ Show Me the Money	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources - Georgia Framework ● High Roller Revisited ● Decimal Line Up ● Reasonable Rounding ● Batter Up! - Georgia Framework: ● Reasonable Rounding - Illustrative Math Tasks NBT.3b - Illustrative Math Tasks NBT.4

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-3 Act Task: Final Lap -3 Act Task: Chasing Gold <u>Virtual Math Manipulatives</u> ● BrainingCamp ● Base ten blocks (decimals) ● Multi-row decimal PV chart ● Number line	○ Rocky's Rock Quarry ○ Decimal Rounding ○ Fruit Weights ○ Mario's Races - Howard County Printable Center Activities (Independent Work Tab) NBT.3b ● Comparing Decimals ● Place Value ● Decimal Puzzles ● Ordering Decimals ● Decimals on a Number Line - Howard County Printable Center Activities (Independent Work Tab) NBT.4 ● Closest to 4.99: Rounding to the Nearest HundredthRounding Decimals ● Half Court Rounding Decimals Game ● Rounding Decimals to Various Values ● Decimal of the Day ● Rounding to Nearest Whole Number ● Rounding to the Nearest Tenth ● Rounding to the Nearest Hundredth <u>Unable to provide Direct Links to the Below Activities</u> -K-5 Math Teaching Resources ● Comparing Decimals ● Rounding Decimals on a Number Line	- Exit Tickets ● Howard County Assessment Tasks Tab NBT.3b ● Howard County Assessment Tasks Tab NBT.4

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	• Roll and Round (nearest tenth)	

Vocabulary for Students - Unit 2 Digital Word Wall			**Mentor Text List**
Mid point	Greater than >	Inequality	
Less than <	Place value	Comparative Statement	

Topic: Mid-Unit Review and Assessment	
Days: 2	**Review Date**: 11/11 **Mid-Unit Assessment Date**: 11/12
Scoring Submission in LinkIt:	**Data Review Date**:

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Topic: Lesson 10 - Add Decimals and Lesson 11 - Subtracting Decimals Return to Top		
Student Learning Standard(s):	**5.NBT.B.7**	Add, subtract, ~~multiply, and divide~~ decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.5 Use appropriate tools strategically. • MP.7 Look for and make use of structure.	• MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.
Days: 7 11/13 - 11/21 Reasoning Task 11/22	**Focus**: (Major Content)	**Benchmarked Standard:** Y **Fluency Standard**: N
Critical Knowledge & Skills		

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Objective:	**We are learning to**: • Add or subtract decimals to hundredths using a variety of strategies. • Explain the reasoning used to add or subtract decimals.
Essential Question(s):	How does my knowledge of basic operations help me solve problems? What makes a strategy both effective and efficient?

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**
Ready Classroom Math Lessons **Lesson 10** Session 1: Try It and Connect It WB pgs Session 2: Try It, Picture It, and Model It WB pgs Session 3: Apply It ques 1-3 **Lesson 11 Prerequisite:** **Grade 4 Lesson 5** Subtract Whole Numbers - **Session 3** **Lesson 11** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Picture It, and Model It WB pgs Session 3 - Try It, Picture It, and Model It WB pgs Session 4 - Apply It Ques 1-3	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

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Materials: Hundredths grid,	

Additional Leveled Resources

Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** **Lesson 10** -Session 1: Additional Practice WB pgs -Session 2: Connect It, Apply It WB, Additional Practice WB pgs, Fluency and Skills WS -Session 3: Apply It ques 4-6 **Lesson 11** -Session 1 - Additional Practice WB pgs -Session 2 - Connect It, Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Connect It, Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: Add Decimals RCM Interactive Practice: Subtract Decimals -RCM Center Activities -RCM Enrichment Activities - Howard County Tasks (Preferred Resources Tab) ● Decimal Animals ● Decimal Estimation ● What's Missing? ● Now What's Missing? ● Choose Your Path Add and Subtract ● Choose More Paths Add and Subtract ● How Much Does It Weigh ● Un-sound System ● Creative Costs ● Candy Bar Square	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources - Georgia Framework: ● Hit the Target ● Ten is the Winner ● It All Adds Up ● Rolling Around with Decimals ● The Right Cut - Illustrative Math Tasks ● The Value of Education - Exit Tickets ● Howard County Assessment Tasks Tab NBT.3b

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-Session 4 - Apply It Questions 4-6 -3 Act Task: Competitive Eating Contest Virtual Math Manipulatives ● Brainingcamp ● Base ten blocks (decimals) ● Multi-row decimal PV chart ● Number line ● Model using hundreds grid (select 3 colors)	- Howard County Printable Center Activities (Independent Work Tab) ● Printable student centers Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources ● Decimal Animals ● Magic Squares	

Vocabulary for Students - Unit 2 Digital Word Wall			**Mentor Text List**
Decimal	Difference	Estimate	
Place value	Sum	Variable	

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	Topic: Lesson 12 - Add Fractions and Lesson 13 - Subtract Fractions Return to Top	
Student Learning Standard(s):	**5.NF.A.1**	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d

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		= (ad + bc)/bd.) *Visual fraction models include tape diagrams, number lines, and area models (See Glossary). Set models, including those defined as the whole, are excluded at this grade.
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.5 Use appropriate tools strategically. • MP.7 Look for and make use of structure.	• MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.
Days: 9 Prerequisite- 11/22 11/25 - 12/6	**Focus**: (Major Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: • Given two fractions with unlike denominators, write equivalent fractions with a common denominator. • Use visual models to represent adding or subtracting fractions with unlike denominators. • Use equivalent fractions to add or subtract fractions and mixed numbers with unlike denominators. *Visual fraction models include tape diagrams, number lines, and area models (See Glossary). Set models, including those defined as the whole, are excluded at this grade.*	
Essential Question(s):	How does my knowledge of basic operations help me solve problems? What makes a strategy both effective and efficient?	

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Core Resources	
Core Whole Group Resources	**Core Formative Assessment**
Ready Classroom Math Lessons **Lesson 12 Prerequisite - 2 days** **Lesson 12** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Picture It, and Model It WB pgs Session 3 - Try It, Picture It, and Model It WB pgs Session 4 - Apply It Ques 1-3 **Lesson 13** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Picture It, and Model It WB pgs Session 3 - Try It, Picture It, and Model It WB pgs Session 4 - Apply It Ques 1-3 Materials: fraction (strips, tiles, circles), number lines	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources		
Activities and Additional Resources for Whole Group	**Differentiated Independent Activities/Center Ideas**	**Teacher Table Differentiated Resources**

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-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** **Lesson 12** -Session 1 - Additional Practice WB pgs -Session 2 - Connect It WB pgs, Apply It WB pgs, and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Connect It WB pgs, Apply It WB pgs and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 4 - Apply It Questions 4-6 **Lesson 13** -Session 1 - Additional Practice WB pgs -Session 2 - Connect It WB pgs, Apply It WB pgs, and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Connect It WB pgs, Apply It WB pgs and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 4 - Apply It Questions 4-6 -3 Act Task: How Far Apart Are The Exits	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: Add Fractions -RCM Interactive Practice: Subtract Fractions -RCM Center Activities -RCM Enrichment Activities - Howard County Tasks (Preferred Resources Tab) ● +/– Like Denominators: Fractions & Mixed Numbers: ○ Wrapping Time ○ Bridging Adding Like and Unlike Denominators ○ FindingCommon Denominators ● +/– Unlike Denominators: Fractions: ○ Hershey Bars (Links to an external site.)+++ ● +/– Unlike Denominators: Fractions & Mixed Numbers: ○ Fraction Sense ○ Fraction Estimation ○ Digits to Fractions ○ Fraction Choices - Howard County Printable Center Activities (Independent Work Tab) ● Using Equivalent Fractions to Subtract ● The Sum Is ● The Difference Is ● Satisfraction ● Kakooma basic 4	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources -Georgia Framework: Fraction Unit - Illustrative Math Tasks - Exit Tickets ● Howard County (Assessment Tab)

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-3 Act Task: What Should The Freeway Sign Show? Virtual Math Manipulatives • BrainingCamp • Fraction Wall (strips) • Fraction Bars • Fraction Circles	• Kakooma basic 5 • Kakooma moderate 6 • Kakooma moderate 7 Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources • Create Equivalent Fractions to Add Unlike Fractions • Create Equivalent Fractions to Subtract Unlike Fractions • Closest to 25	

Vocabulary for Students - Unit 2 Digital Word Wall			**Mentor Text List**
Common denominator	Denominator	Equivalent fractions	*Apple Fractions* by Jerry Pallotta *Fraction Action* by Loreen Leedy *Fraction Fun* by David A. Adler *Fractions = Trouble!* by Claudia Mills *The Hershey's Chocolate Fractions Book* by Jerry Pallotta *Picture Pie* by Ed Emberley *Piece = Part = Portion: Fractions = Decimals = Percents* by Scott Gifford *Pizza Counting* by Christina Dobson *Working with Fractions* by David A. Adler
Multiple	Mixed number	Numerator	
Fraction greater than a whole		Variable	

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	Topic: Lesson 14 - Add and Subtract in Word Problems Return to Top	
Student Learning Standard(s):	**5.NF.A.2**	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2. *Visual fraction models include tape diagrams, number lines, and area models (See Glossary). Set models, including those defined as the whole, are excluded at this grade.
	5.NBT.B.7	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
Math Practices:	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.5 Use appropriate tools strategically.	• MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.
Days: 4 12/9 - 12/12	**Focus**: (Major Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: • Add and subtract fractions and mixed numbers with unlike denominators to solve word problems.	

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	• Add and subtract decimals to hundredths to solve word problems. • Use benchmark fractions to estimate fraction sums and differences. • Use rounded decimals to estimate decimal sums and differences. • Use estimation to check whether a solution is reasonable. *Visual fraction models include tape diagrams, number lines, and area models (See Glossary). Set models, including those defined as the whole, are excluded at this grade.*
Essential Question(s):	How does my knowledge of basic operations help me solve problems? What makes a strategy both effective and efficient?

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**
Ready Classroom Math Lessons **Lesson 14** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Model It, and Connect It WB pgs Session 3 - Try It, Picture It, and Model It WB pgs Session 4 - Apply It Ques 1-3 Materials: fraction (strips, tiles, circles), number lines, base-ten blocks	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

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Additional Leveled Resources		
Activities and Additional Resources for Whole Group	**Differentiated Independent Activities/Center Ideas**	**Teacher Table Differentiated Resources**
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** -Session 1 - Additional Practice WB pgs -Session 2 - Apply It WB pgs, Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Connect It WB pgs, Apply It WB pgs and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 4 - Apply It Questions 4-5 -3 Act Task: How Far Apart Are The Exits -3 Act Task: What Should The Freeway Sign Show? Virtual Math Manipulatives ● BrainingCamp ● Fraction Wall (strips)	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: N/A -RCM Center Activities -RCM Enrichment Activities - Howard County Tasks (Preferred Resources Tab) ● Word Problems: +/– Fractions & Mixed Numbers with Unlike Denominators: ○ Waisting Away ○ Preparing for the Party - Howard County Printable Center Activities (Independent Work Tab) ● Fraction Addition Problem ● Subtraction Fraction Action ● Thinking Blocks ● Fraction Action Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources ● Word Problems: Adding Mixed Numbers ● Create and Solve: Adding Unlike Fractions	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources -Georgia Framework: Fraction Unit - Illustrative Math Tasks - Exit Tickets ● Howard County (Assessment Tab)

• Fraction Bars • Fraction Circles	• Create and Solve: Subtracting Unlike Fractions • The Wishing Club (v. 1) • The Wishing Club (v. 2)	

Vocabulary for Students - Unit 2 Digital Word Wall	**Mentor Text List**
Benchmark fraction Common denominator Equivalent Fraction Variable	*Apple Fractions* by Jerry Pallotta *Fraction Action* by Loreen Leedy *Fraction Fun* by David A. Adler *Fractions = Trouble!* by Claudia Mills *The Hershey's Chocolate Fractions Book* by Jerry Pallotta *Picture Pie* by Ed Emberley *Piece = Part = Portion: Fractions = Decimals = Percents* by Scott Gifford *Pizza Counting* by Christina Dobson *Working with Fractions* by David A. Adler

Topic: Unit Review and Unit Assessment

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Standards Covered: 5.NBT.B.7, 5.NF.A.1 and 5.NF.A.2 **Days**: 2	**Review Date**: 12/16 **Unit Assessment Date**: 12/17
Scoring Submission in LinkIt:	**Data Review Date**:

**Math In Action Lessons can be completed if time allows within the unit. They may also be used for differentiation for G&T students.*

	Topic: Math In Action Return to Top	
Student Learning Standard(s):	**5.NBT.A.3a** **5.NBT.A.3b** **5.NBT.A.4** **5.NBT.B.7** **5.NF.A.1** **5.NF.A.2**	Clusters 5.NBT.A Understand the place value system. 5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths. 5.NF.A Use equivalent fractions as a strategy to add and subtract fractions.
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others.	• MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics.

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	• MP.5 Use appropriate tools strategically. • MP.7 Look for and make use of structure. • MP.6 Attend to precision. • MP.8 Look for and express regularity in repeated reasoning.	
Days: 1 12/13	**Focus**: (Major Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: Apply skills from the unit to solve real-world problems involving whole number, decimal and fraction operations, and comparing and rounding decimals.	
Essential Question(s):	How does my knowledge of basic operations help me solve problems? What makes a strategy both effective and efficient? When is estimation more appropriate than finding the 'right' answer? What are strategies to make a reasonable estimate?	

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**

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Additional Leveled Resources		
Activities and Additional Resources for Whole Group	**Differentiated Independent Activities/Center Ideas**	**Teacher Table Differentiated Resources**
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **Ready Classroom Math Lessons** **Math In Action** ● Dog Collars ● Petting Zoo ● Barely Used ● Ring Toss - 3 Act Tasks from Lessons in this Unit	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: N/A -RCM Center Activities -RCM Enrichment Activities	-RCM Prerequisite Lessons -RCM Tools for Instruction -Unit Resources for Review

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Computer Science (8.1) and Design Thinking (8.2)	
8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies. 8.1.5.NI.1: Develop models that successfully transmit and receive information using both wired and wireless methods 8.1.5.NI.2: Describe physical and digital security measures for protecting sensitive personal information. 8.1.5.IC.1: Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes. 8.1.5.IC.2: Identify possible ways to improve the accessibility and usability of computing technologies to address the diverse needs and wants of users. 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim. 8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.	8.2.5.ITH.1: Explain how societal needs and wants influence the development and function of a product and a system. 8.2.5.ITH.2: Evaluate how well a new tool has met its intended purpose and identify any shortcomings it might have. 8.2.5.ITH.4: Describe a technology/tool that has made the way people live easier or has led to a new business or career. 8.2.5.NT.1: Troubleshoot a product that has stopped working and brainstorm ideas to correct the problem. 8.2.5.NT.2: Identify new technologies resulting from the demands, values, and interests of individuals, businesses, industries, and societies. 8.2.5.ETW.1: Describe how resources such as material, energy, information, time, tools, people, and capital are used in products or systems. 8.2.5.ETW.2: Describe ways that various technologies are used to reduce improper use of resources. 8.2.5.ETW.3: Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved. 8.2.5.EC.1: Analyze how technology has contributed to or reduced inequities in local and global communities and determine its short- and long-term effects.

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Preparation for College, Careers, and Beyond

Career Ready Practices

CRP1. Act as a responsible and contributing citizen and employee.
CRP2. Apply appropriate academic and technical skills.
CRP3. Attend to personal health and financial well-being.
CRP4. Communicate clearly and effectively and with reason.
CRP5. Consider the environmental, social and economic impacts of decisions.
CRP6. Demonstrate creativity and innovation.
CRP7. Employ valid and reliable research strategies.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP9. Model integrity, ethical leadership and effective management.
CRP10. Plan education and career paths aligned to personal goals.
CRP11. Use technology to enhance productivity.
CRP12. Work productively in teams while using cultural global competence.

Personal Financial Literacy (9.1) and Career Awareness, Exploration, and Preparation (9.2)

Seek opportunities to integrate financial literacy and career readiness into math lessons and activities when appropriate.

Reference Standard 9.1 (Personal Financial Literacy) and Standard 9.2 (Career Awareness, Exploration, and Preparation) by visiting http://www.state.nj.us/education/cccs/2014/career/9.pdf

Personal Financial Literacy (Standard 9.1)	
Strand A	**Income and Careers**
Strand B	**Money Management**
Strand C	**Credit and Debt Management**
Strand D	**Planning, Saving, and Investing**
Strand E	**Becoming a Critical Consumer**
Strand F	**Civic and Financial Responsibility**
Strand G	**Insuring and Protecting**
Career Awareness, Exploration, and Preparation (Standard 9.2)	
Strand A	**Career Awareness (by end of Grade 4)**
Strand B	**Career Exploration (by end of Grade 8)**
Strand C	Career Preparation (by end of Grade 12)

Cross-Curricular Connections

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Interdisciplinary Connections	Technology Integration and Literacy
• Literature connections (math mentor texts identified in "Resources and Activities") • Math journals • Math word wall • Literacy Connections & Activities Ready Classroom Math	Online links and possible resources for the integration of technology into lessons are embedded within the "Possible Resources and Activities" column for each Topic area.

Possible Modifications and Accommodations			
Special Education/504 Plans	**At-Risk**	**Gifted**	**English Language Learners**
All teachers of students with special needs must review each student's IEP. Teachers must then select the appropriate modifications and/or accommodations necessary to enable the student to appropriately progress in the general curriculum.* **Possible Modifications/Accommodations • Number line on desk • Extra time on timed calculation assessments • Use of a calculator or chart of basic facts for computation • Use of a graphic organizer to plan ways to solve math problems	The possible list of modifications/accommodations identified for Special Education students can be utilized for At-Risk students. Teachers should utilize ongoing methods to provide instruction, assess student needs, and utilize modifications specific to the needs of individual students. **Refer to the individual student Math Plan for **specific interventions**.*	**Teachers should select the appropriate modifications and/or accommodations for Gifted and Talented according to the following suggestions.* Differentiating instruction based on: • **Content:** *What* is taught or the material used • **Process:** *How* it is taught or support given or student grouping or environment • **Product:** What students produce To differentiate **content** consider: • Using different resources that have less explicit information (e.g., tiering assignments - consider what would make the content more complex to digest for gifted students) ◦ **For Example**: tiering problem solving scenarios making a gifted learner's scenario more complex	• Continue practicing vocabulary • Demonstrate that vocabulary can have multiple meanings • Encourage bilingual supports among students • Provide visual cues, graphic representations, gestures, and pictures • Rephrase math problems when appropriate • Build knowledge from real-world examples • Provide manipulatives and symbols • Have students estimate each other's heights

● Use of concrete materials and objects (manipulatives) ● Opportunities for cooperative partner work ● Assign fewer problems at one time (e.g., assign only odds or evens) ● Basic computation – use counters ● Differentiated center-based small group instruction ● Fractions – use fraction blocks ● Provide a copy of mathematical equations, class notes, and examples for math notebooks ● Highlight or underline key words in word problems ● If a manipulative is used during instruction, allow its use on a test ● Place value – use place value blocks ● Provide graph paper for arrays ● Provide reteach pages if necessary ● Provide several ways to solve a problem if possible ● Offer small and large graph paper options ● Provide visual aids and anchor charts ● Tiered lessons and assignments		○ **For Example**: gifted students could work on deriving the procedure for an abstract concept ● Organizing ideas through graphic organizers ● Using a learning contract (learning contracts are *individualized* and allow students to participate in designing their own learning which is motivating for gifted students) ● Using jigsaws ● Using orbital studies (differ from independent investigations and is meant as an extension of the topics covered in class into specific fields of study e.g., manufacturing) To differentiate the **process** consider: ● How students are grouped ● Tiering materials used (e.g., graphic organizers varying in complexity, types of questions asked - DOK level) ○ **For Example**: *Below-Grade-Level Question*: ●●●●●● **+ ? =** ●●●●●●●●●● *On-Grade-Level Question* (Grade 1): 6 **+ ? =** 10 *Above-Grade-Level Question*: Jon has 6 puppies. He wants to have 10 puppies. How many more puppies does he need to buy? To differentiate the **product** consider: ● Using a choice board (the difficulty of the activity should be noted for each choice and should be at least 3 levels) ● Using a menu of options (each item is assigned a point value and students select the route to take)	● Have students measure themselves and one another ● Have students relate an object they know with a unit of measure ● Encourage peer discussions regarding how students are thinking about math ● RCM Unit Connect Language Development to Mathematics

		● Using open ended tasks (have more than one correct answer and/or more than one way to get to/explain an answer) o **For Example**: (Grade 2) Use the digits 0 to 9, at most one time each, to make a true statement. ⬜⬜ – ⬜⬜ = ⬜⬜ + ⬜⬜ (Open Middle Link) o **For Example:** (Grade 3) Using the digits 1 to 9 exactly one time each, place a digit in each box to make the sum as close to 1000 as possible. ⬜⬜⬜ + ⬜⬜⬜ + ⬜⬜⬜ (GeoGebra Link)	
Individualized Learning Opportunities			
Possible independent study and online learning opportunities are embedded within the “Possible Resources and Activities” column for each Topic area. iReady			