

Grade 4 Unit 1 — Dates: 9/16/2021 - 10/21/2021

Rationale for Unit 1 Expectations

Unit 1 focuses on place value and builds on learners' prior work reading and writing numbers using base-ten numerals, number names, and expanded form through productive struggle of open-ended word problems and constructivist approaches. Learners go beyond representing numbers to 1000 to representing any whole number in any of these forms. They use these understandings to round numbers to any place, add and subtract.

In grade 3, learners' experiences developed fluency for addition and subtraction within 1000. They demonstrated fluency using various strategies and algorithms based on place value or properties of operations. In grade 4, students become fluent with the standard algorithm for addition and subtraction for any multi-digit whole numbers. Grade level whole group instruction should be supported through independent stations, teacher led small groups and refined in small group center work.

Unit 1 Description & Expectations

Days of Instruction: 25 days (*1 day is counted for Smart Strong & 1 day is counted for iReady Diagnostic 1.)

Unit Completion Date: 10/21

Unit Topics/Themes: Working with Multi-Digit Numbers

[Topic: Setting Learning Routines](#) (Lesson 0)

[Topic: Understand Place Value](#) (Lesson 1)

[Topic: Compare Whole Numbers](#) (Lesson 2)

[Topic: Round Whole Numbers](#) (Lesson 3)

[Topic: Add & Subtract Whole Numbers](#) (Lesson 4 & 5)

[Topic: Unit Review and Unit Assessment](#)

[Topic: Math in Action: Work with Whole Numbers](#) (Math in Action)

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	
<p>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, Subitizing, Spatial Relationships, One/Two More & Less, Benchmark Numbers, Part-Part-Whole, Magnitude, etc.</p> <p>Core Resource for Whole Group Instruction: Ready Classroom Math (30-45 minutes daily)</p> <p>Ready Classroom Math design & expectations:</p> <ul style="list-style-type: none"> ● 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 <i>Try-Discuss-Connect</i> routine. Strategy Lessons are taught over multiple days (usually 3-5 days) and consist of different sessions. <ul style="list-style-type: none"> ○ Explore Session(s) follow the <i>Try-Discuss-Connect Routine</i> 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 Action Lessons students apply strategies and build procedural fluency. <p><i>Try - Discuss - Connect Routine</i> is primarily used in Explore and Develop Sessions</p>	<p>Number of groups to meet with each day: two</p> <p>When planning for differentiation, it is important to 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.</p> <p>Gifted Students: When planning for students who are gifted, consider differentiating the content, process or product.</p> <p>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 common unique needs and common misconceptions. Doing this will help you to plan effectively, and form groups based on daily exit tickets and Ready Unit Prerequisite Report. Support</p>	<p>Activities should be aligned to specific skills & standards addressed during whole group instruction and practice of fluency standards.</p>

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 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

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 Lessons, Reteach Activities, Vocabulary pages, etc.), while a direct explicit connection between intervention strategies and grade level content is built.

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<p>Try It problem. The teacher should use:</p> <ul style="list-style-type: none"> ○ <i>Language Routines</i> - Collect & Display and Compare & Connect ○ <i>Teacher Moves</i> - Turn & Talk, Individual Think Time and Four Rs <p>Closing: (2-5 minutes daily) The closure should be directly related to the goal of the lesson. Formal 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.</p>		
Whole Group Instruction	Differentiation: Teacher Table	Differentiation: Independent Practice/Small Group Center
Unit Resources		
<ul style="list-style-type: none"> ● 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: <ul style="list-style-type: none"> ○ Gr 4 ● Achieve the Core Coherence Map ● Illustrative Mathematics ● Mindset Mathematics (Gr 3-6) by Jo Boaler ● You Cubed ● San Francisco Unified School District (SFUSD) <ul style="list-style-type: none"> ○ Gr 4 	<ul style="list-style-type: none"> ● 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: <ul style="list-style-type: none"> ○ K6-ThinkCentral - counters, base ten blocks, number line, 100s chart, graphs, fractions, measurement ○ TheMathLearningCenter - ten frames, counters, time, 	<ul style="list-style-type: none"> ● 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: <ul style="list-style-type: none"> ○ Gr 4

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<ul style="list-style-type: none"> ● Three Act Tasks: <ul style="list-style-type: none"> ○ 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: <ul style="list-style-type: none"> ○ 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) ○ 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) 	<p>number line, math rack, geoboards</p> <ul style="list-style-type: none"> ○ Glencoe WorkMats/Storyboards/Manips. ○ SplatSquare-InteractiveHundredsChart ○ EduPlace - NumberLine - allows for multiple jumps to introduce open number line concept, decomposing numbers ○ virtual Rekenrek ○ Dreambox Teacher Tools 	
Whole Group Instruction	Differentiation: Teacher Table	Differentiation: Independent Practice/Small Group Center
Assessments		
<ul style="list-style-type: none"> ● Ready Unit Assessment ● Ready Lesson Quizzes ● Ready - Math In Action 	<ul style="list-style-type: none"> ● Daily log of small group instruction ● Anecdotal Notes 	<p>Examples of accountability measures: Recording sheets,</p>

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<ul style="list-style-type: none"> ● CFAs ● Exit Tickets 	<ul style="list-style-type: none"> ● Grade Level Math Interview ● CFAs ● RCM Fluency Practice Pages ● RCM Prerequisite Lessons ● RCM Tools for Instruction Lessons ● Exit Tickets ● Achieve the Core Coherence Map ● Illustrative Mathematics 	<p>Fluency Practice Pages, exit tickets, rubrics, reflections, etc.</p>
<p>Whole Group Instruction</p>	<p>Differentiation: Teacher Table</p>	<p>Differentiation: Independent Practice/Small Group Center</p>
<p>Standards</p>		
<p>4.NBT.A.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. <i>For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.</i></p> <p>4.NBT.A.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.</p> <p>4.NBT.A.3 Use place value understanding to round multi-digit whole numbers to any place.</p> <p>4.NBT.B.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p>	<p>In addition to Whole Group Standards, you may choose to focus on grade level fluency standards or other priority standards listed below:</p> <p>**Unit 1 Center Focuses:</p> <p>2.NBT.A.2 Skip-count by 5s, 10s, and 100s.</p> <p>3.NBT.A.1 Round numbers to the nearest 10 or 100 within 1000.</p> <p>3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	

Unit 1 Math Pacing Guide

Topic: Setting Learning Routines		
Student Learning Standard(s):	3.NBT.1 3.NBT.2	- Use place value understanding to round whole numbers to the nearest 10 or 100. - Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
Math Practices:	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.
Days: 5 <i>9/9 - 9/15</i>	Focus: (Additional Content)	Benchmarked Standard: N Fluency Standard: Y (3.NBT.2)
Critical Knowledge & Skills		
Objective:	We are learning to: think and talk like mathematicians.	
Essential Question(s):	How do routines help us learn?	

Core Resources		
Core Whole Group Resources	Core Formative Assessment	
Ready Classroom Math Lessons Lesson 0: Sessions for the First Five Days *This lesson's materials are ONLY online on the Teacher Toolbox. Setting Number Talk & Sense Making Activity Expectations Introducing and practicing Silent Hand Signals		
Additional Levelled Resources		
Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources

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<p>-Number Sense Lessons/Resources Number Talks:</p> <p>-Mindset Resources: Week of Inspirational Math (WIM) Videos to Watch: -Believe in Yourself -Brains Grow and Change -Speed is Not Important -Strategies for Learning Mathematics -The Importance of Struggle</p> <p>Activities: -And I'm a Mathematician -Dot Card and Number Talks -Good Groupwork</p> <p>Resources listed below are from Gr 3 Unit 1 Guidance Doc: -3 Act: Gummy Worms by Kyle Pearce</p> <p>3.NBT.1: -Brainpop Video: Rounding -LearnZillion: 3.NBT.1</p> <p>3.NBT.2: -Brainpop Videos: Addition w/ Regrouping Subtraction without Regrouping Subtraction with Regrouping</p>	<p>-Digital Practice - Scavenger Hunt on Slides</p> <p>Resources listed below are from Gr 3 Unit 1 Guidance Doc: -Online game: Half-court Rounding -Brainpop Video: Rounding -Inside Mathematics</p> <p>-Fact Practice for Speed and Accuracy: Xtra Math -Fact Practice for Flexibility: Splash Learn</p> <p>-3NBTA1 Rounding Shared Drive Folder</p>	<p>Resources listed below are from Gr 3 Unit 1 Guidance Doc: 3.NBT.1: -3.NBT.A.1 Rounding to 50 or 500 -Model numbers on a number line and decide if it is closer to a 10 or 100. -Make a connection between the base-ten pieces and a place value chart while working with rounding.</p> <p>3.NBT.2 -LearnZillion Resources 3.NBT.2 3.NBT.2</p>
<p align="center">Vocabulary for Students</p>	<p align="center">Mentor Text List</p>	
<ul style="list-style-type: none"> - Partial Sums - Place Value - Round 	<p>3.NBT.1: <i>Let's Estimate</i> by David Adler (YouTube Read Aloud)</p> <p>3.NBT.2: <i>The Action of Subtraction</i> by Brian Cleary (YouTube Read Aloud) <i>A Fair Bear Share</i> by Stuart J. Murphy (YouTube Read Aloud)</p>	

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Hershey's Kisses Addition Book by Jerry Pallotta ([YouTube Read Aloud](#))
Hershey's Kisses Subtraction Book by Jerry Pallotta
Mission: Addition by Loreen Leedy ([YouTube Read Aloud](#))
The M&M's Subtraction Book by Barbara McGrath
Safari Park by Stuart J. Murphy ([YouTube Read Aloud](#))
Subtraction Action by Loreen Leedy ([YouTube Read Aloud](#))
The Subtraction Book by Jerry Pallotta
Shark Swimathon by Stuart J. Murphy ([YouTube Read Aloud](#))

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Topic: Understand Place Value		
Student Learning Standard(s):	<p>4.NBT.1</p> <ul style="list-style-type: none"> - Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. <i>For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.</i> <p>4.NBT.2</p> <ul style="list-style-type: none"> - Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. 	
Math Practices:	<ul style="list-style-type: none"> • 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. 	
Days: 3 9/16 - 9/20	Focus: (Major Content)	Benchmarked Standard: N Fluency Standard: N
Critical Knowledge & Skills		
Objective:	<p>We are learning to:</p> <p>(4.NBT.1) Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. <i>For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.</i></p> <p>(4.NBT.2) Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form.</p> <p><i>Session 1-3:</i></p> <ul style="list-style-type: none"> • Use a place-value chart to understand the value of each digit in a number. • Identify the value of a digit based on its position in a number. • Demonstrate how moving from one place-value position to the next greatest position changes the value of a digit by a multiple of ten. • Show that any number can be represented in different ways (standard form, word form, and expanded form) to read and write multi-digit whole numbers. 	
Essential Question(s):	How does the position of a digit affect its value?; How are place value patterns repeated in large numbers?	

Core Resources	
Core Whole Group Resources	Core Formative Assessment

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<p>Ready Classroom Math Lessons Lesson 1 Understand Place Value</p>	<p>-RCM Lesson Quizzes -CFAs</p>	
<p>Additional Leveled Resources</p>		
<p>Activities and Additional Resources for Whole Group</p>	<p>Differentiated Independent Activities/Center Ideas</p>	<p>Teacher Table Differentiated Resources</p>
<p>-Anchor Chart Links - 4.NBT.1 & 4.NBT.2 - 4.NBT.1 & 4.NBT.2 -Unit 1 Digital Anchor Charts</p> <p>-Number Sense Lessons/Resources <u>Georgia Framework:</u> - 4.NBT.1 What Comes Next? - 4.NBT.1 & 4.NBT.2 Relative Value of Places - 4.NBT.2 Number Scramble - 4.NBT.2 Ordering and Comparing Numbers <u>Illustrative Math:</u> - 4.NBT.2 What's My Number - 4.NBT.2 Amusement Park Lagoon - 4.NBT.2 Fundraiser <u>Open Educational Resources:</u> - 4.NBT.1 10x Bigger!</p> <p>-Interactive Tools - Virtual Manipulatives - Base Ten Virtual Manipulatives - Place Value Matching Game - Place Value Manipulatives Game - Comparing and Ordering Game</p>	<p>-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: Understand Place Value -RCM Center Activities -RCM Enrichment Activities -Center Activities (4.NBT.1) <u>Georgia Frameworks:</u> - 4.NBT.1 Newspaper PBL - 4.NBT.1 Place Value Styrofoam Cup Activity <u>Howard County, MD:</u> - 4.NBT.1 Pocket Full of Bills - 4.NBT.1 The Greatest Eight - 4.NBT.1 Name That Digit - 4.NBT.1 Place Value Patterns - 4.NBT.1 Guess My Number - 4.NBT.1 Just Add a Zero - 4.NBT.2 Which is larger? - 4.NBT.2 Number Mix Up - 4.NBT.2 Who is older? - 4.NBT.2 Bunches of Boxes - 4.NBT.2 County Populations - 4.NBT.2 Numbers in All Forms <u>Illustrative Math:</u> - 4.NBT.1 Thousands and Millions of 4th Graders - 4.NBT.1 Threatened and Endangered - 4.NBT.1 What's My Number? - 4.NBT.2 Ordering Four-Digit Numbers <u>K-5 Math Teaching Resources:</u> - 4.NBT.1 Comparing Digits - 4.NBT.2 Place Value Triangle</p>	<p>-RCM Prerequisite Lessons - Grade 3 - Lesson 1 -RCM Tools for Instruction -RCM Exit Tickets</p>

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	<ul style="list-style-type: none"> - 4.NBT.2 Numeral, Word, Expanded Form <u>Learnzillion:</u> - 4.NBT.1 Model numbers using base ten blocks - 4.NBT.1 Understand relationships between digits and their place value - 4.NBT.1 Use a place value chart and arrow cards to understand large numbers - 4.NBT.2 Read and Write Numbers in Expanded Form - 4.NBT.2 Read and Write Numbers in Numeric Form 	
<p align="center">Vocabulary for Students - Unit 1 Digital Word Wall</p>	<p align="center">Mentor Text List</p>	
<ul style="list-style-type: none"> - Digit - Expanded Form - Period - Place Value - Standard Form - Word Form <p>These vocabulary words are part of the UNIT 1 Word Wall Virtual Word Wall</p>	<ul style="list-style-type: none"> - <i>Place Value</i> by Danielle Carroll - <i>Place Value</i> by Newbridge - <i>How Much is a Million</i> by David Schwartz - <i>Millions, Billions, & Trillions: Understanding Place Value</i> by David Adler - <i>Count To a Million</i> by Jerry Pallotta - <i>If You Made a Million</i> by David M. Schwartz 	

Topic: Compare Whole Numbers

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Student Learning Standard(s):	4.NBT.2	- Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
Math Practices:	<ul style="list-style-type: none"> • 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.8 Look for and express regularity in repeated reasoning. 	
Days: 3 9/21 - 9/23	Focus: (Major Content)	Benchmarked Standard: N Fluency Standard: N
Critical Knowledge & Skills		
Objective:	<p>We are learning to: Compare two multi-digit numbers (up to one million) based on meanings of the digits in each place, using $>$, $=$, $<$ symbols to record the results of comparisons.</p> <p><i>Session 1-3:</i></p> <ul style="list-style-type: none"> • Use symbols ($>$, $<$, $=$) to show the relationship between two multi-digit numbers. • Compare multi-digit numbers in order to solve word problems. 	
Essential Question(s):	How are place value patterns repeated in large numbers?	

Core Resources		
Core Whole Group Resources		Core Formative Assessment
Ready Classroom Math Lessons Lesson 2 Compare Whole Numbers		-RCM Lesson Quizzes -CFAs
Additional Levelled Resources		
Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
-Anchor Chart Links - 4.NBT.2 Comparing Whole Numbers - Unit 1 Digital Anchor Charts	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: Compare Whole Numbers -RCM Center Activities	-RCM Prerequisite Lessons - Grade 3 - Lesson 1 -RCM Tools for Instruction

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<p>-Number Sense Lessons/Resources</p> <p><u>Cache County:</u></p> <ul style="list-style-type: none"> - 4.NBT.2 What's My Number - 4.NBT.2 Amusement Park Lagoon - 4.NBT.2 Fundraiser <p><u>Georgia Framework:</u></p> <ul style="list-style-type: none"> - 4.NBT.2 Number Scramble - 4.NBT.2 Ordering and Comparing Numbers - 4.NBT.1 & 4.NBT.2 Relative Value of Places <p>-Interactive Tools</p> <ul style="list-style-type: none"> - Virtual Manipulatives - Base Ten Virtual Manipulatives - Place Value Matching Game - Place Value Manipulatives Game - Comparing and Ordering Game 	<p>-RCM Enrichment Activities</p> <p>-Center Activities (4.NBT.2)</p> <p><u>Cache County:</u></p> <ul style="list-style-type: none"> - 4.NBT.2 What's My Number - 4.NBT.2 Amusement Park Lagoon - 4.NBT.2 Fundraiser <p><u>Howard County, MD:</u></p> <ul style="list-style-type: none"> - 4.NBT.2 Which is larger? - 4.NBT.2 Number Mix Up - 4.NBT.2 Who is older? - 4.NBT.2 Bunches of Boxes - 4.NBT.2 County Populations - 4.NBT.2 Numbers in All Forms <p><u>Illustrative Math:</u></p> <ul style="list-style-type: none"> - 4.NBT.2 Ordering Four-Digit Numbers <p><u>K-5 Math Teaching Resources:</u></p> <ul style="list-style-type: none"> - 4.NBT.2 Place Value Triangle - 4.NBT.2 Numeral, Word, Expanded Form 	<p>-RCM Exit Tickets</p>
<p align="center">Vocabulary for Students - Unit 1 Digital Word Wall</p>	<p align="center">Mentor Text List</p>	
<ul style="list-style-type: none"> - Compare - Equal Sign (=) - Greater Than Symbol (>) - Less Than Symbol (<) <p>These vocabulary words are part of the UNIT 1 Word Wall</p>	<ul style="list-style-type: none"> - <i>Millions, Billions, & Trillions: Understanding Place</i> - <i>Value</i> by David A. Adler - <i>Count To a Million</i> by Jerry Pallotta - <i>If You Made a Million</i> by David M. Schwartz 	

Topic: Round Whole Numbers

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Student Learning Standard(s):	4.NBT.3	- Use place value understanding to round multi-digit whole numbers to any place.
Math Practices:	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision. • MP.8 Look for and express regularity in repeated reasoning.
<p align="center">Days: 4 9/24 - 9/29</p> <p align="center"><i>*9/29 was intentionally skipped to count for iReady Diagnostic 1.</i></p>	Focus: (Major Content)	Benchmarked Standard: N Fluency Standard: N
Critical Knowledge & Skills		
Objective:	<p>We are learning to: Use place value understanding to round multi-digit whole numbers to any place.</p> <p><i>Session 1:</i></p> <ul style="list-style-type: none"> • Round multi-digit whole numbers to any place. <p><i>Session 2-3:</i></p> <p>Continuing on from Session 1’s objectives we will build upon that by being able to:</p> <ul style="list-style-type: none"> • Explain how to round a multi-digit whole number to a specific place value. 	
Essential Question(s):	When is estimation more appropriate than finding the ‘right’ answer?; What strategies make a reasonable estimate?	

Core Resources		
Core Whole Group Resources		Core Formative Assessment
Ready Classroom Math Lessons Lesson 3 Round Whole Numbers		-RCM Lesson Quizzes -CFAs
Additional Leveled Resources		
Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
-Anchor Chart Links - 4.NBT.3 Rounding Multi-Digit Numbers	-iReady Individual Path -iReady Teacher Assigned Lessons	-RCM Prerequisite Lessons - Grade 3

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<p>-Unit 1 Digital Anchor Charts</p> <p>-Number Sense Lessons/Resources <u>Cache County:</u> - 4.NBT.3 Enough is Enough - 4.NBT.3 Rollercoaster Rounding <u>Georgia Framework:</u> - 4.NBT.3 It's in the Numbers! <u>Graham Fletcher:</u> - 4.NBT.3 Where's the Beef 3-ACT Task</p> <p>-Interactive Tools - Number Line Generator</p>	<p>-RCM Interactive Practice: None -RCM Center Activities -RCM Enrichment Activities -Center Activities (4.NBT.3) <u>Cache County:</u> - 4.NBT.3 Enough is Enough - 4.NBT.3 Rollercoaster Rounding <u>Howard County, MD:</u> - 4.NBT.3 Fundraiser Fun - 4.NBT.3 Rounding Problems - 4.NBT.3 Guess My Number - 4.NBT.3 Let's Celebrate - 4.NBT.3 Rounding Race <u>Illustrative Math:</u> - 4.NBT.3 Rounding to the Nearest 1000 - 4.NBT.3 Round to the Nearest 100 and 1000 <u>K-5 Math Teaching Resources:</u> - 4.NBT.3 Reasonable Difference - 4.NBT.3 Reasonable Sums</p>	<p>- Lesson 1 -RCM Tools for Instruction -RCM Exit Tickets</p>
<p align="center">Vocabulary for Students - Unit 1 Digital Word Wall</p>	<p align="center">Mentor Text List</p>	
<ul style="list-style-type: none"> - Estimate (verb) - Round <p>These vocabulary words are part of the UNIT 1 Word Wall</p>	<ul style="list-style-type: none"> - <i>Place Value</i> by Danielle Carroll - <i>Place Value</i> by Newbridge 	

Topic: Add & Subtract Whole Numbers

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Student Learning Standard(s):	4.NBT.4	- Fluently add and subtract multi-digit whole numbers using the standard algorithm.
Math Practices:	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision. • MP.8 Look for and express regularity in repeated reasoning.
<p align="center">Days: 13 9/30 - 10/19</p> <p><i>*10/4 was intentionally skipped to count for Smart Strong.</i></p>	Focus: (Major Content)	Benchmarked Standard: N Fluency Standard: Y
Critical Knowledge & Skills		
Objective:	<p>We are learning to: Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p><i>Lesson 4 Session 1-4:</i></p> <ul style="list-style-type: none"> • Use place-value strategies to add two or more multi-digit whole numbers. • Develop fluency with the standard algorithm for addition when adding multi-digit whole numbers up to 999,999. • Use an estimating strategy with rounded numbers to check for reasonableness of a sum. <p><i>Lesson 5 Session 1-4:</i></p> <ul style="list-style-type: none"> • Use place-value strategies to subtract two or more multi-digit whole numbers. • Develop fluency with the standard algorithm for subtraction when subtracting multi-digit whole numbers up to 999,999. • Use addition to check differences. • Use an estimating strategy with rounded numbers to check for reasonableness of a difference. 	
Essential Question(s):	How do you make sense of different strategies?; How do you determine their strengths and weaknesses?	

Core Resources	
Core Whole Group Resources	Core Formative Assessment
<p><u>Ready Classroom Math Lessons</u></p> <p>Lesson 4 Prerequisite: Grade 3 Lesson 2 Add 3-digit Numbers (Session 1 & Session 3) Lesson 4 Add Whole Numbers Lesson 5 Prerequisite: Grade 3 Lesson 3 Subtract 3-digit Numbers (Session 2 & Session 4)</p>	<p>-RCM Lesson Quizzes -CFAs</p>

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Lesson 5 Subtract Whole Numbers		
Additional Levelled Resources		
Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
<p>-Anchor Chart Links</p> <ul style="list-style-type: none"> - 4.NBT.4 Adding Multi-Digit Numbers - 4.NBT.4 Subtracting Multi-Digit Numbers <p>-Unit 1 Digital Anchor Charts</p> <p>-Number Sense Lessons/Resources</p> <p><u>Cache County:</u></p> <ul style="list-style-type: none"> - 4.NBT.4(+/-) Lagoon Adventure - 4.NBT.4(+/-) My Mountain Ranges - 4.NBT.4(+/-) Vacation Miles <p><u>Graham Fletcher:</u></p> <ul style="list-style-type: none"> - 4.NBT.4(+/-) Where's the Beef 3-ACT Task <p><u>Georgia Framework:</u></p> <ul style="list-style-type: none"> - 4.NBT.4 Making Sense of the Algorithm - 4.NBT.4 Reality Checking <p>-Interactive Tools</p>	<p>-iReady Individual Path</p> <p>-iReady Teacher Assigned Lessons</p> <p>-RCM Interactive Practice: Add Whole Numbers & Subtract Whole Numbers</p> <p>-RCM Center Activities</p> <p>-RCM Enrichment Activities</p> <p>-Center Activities (4.NBT.4)</p> <p><u>Cache County:</u></p> <ul style="list-style-type: none"> - 4.NBT.4(+/-) Lagoon Adventure - 4.NBT.4(+/-) My Mountain Ranges - 4.NBT.4(+/-) Vacation Miles <p><u>Graham Fletcher:</u></p> <ul style="list-style-type: none"> - 4.NBT.4(+/-) Where's the Beef 3-ACT Task <p><u>Howard County:</u></p> <ul style="list-style-type: none"> - 4.NBT.4(+) In Attendance for Our History - 4.NBT.4(+) Unpacking Books - 4.NBT.4(+) Animal Shelter - 4.NBT.4(+) Bean Bag Toss - 4.NBT.4(+) Good Fit - 4.NBT.4(+) What's Missing? - 4.NBT.4(-) Hershey Triple Tower - 4.NBT.4(-) Walking Wednesday - 4.NBT.4(-) Subtraction Strategy Showdown - 4.NBT.4(-) Comparing Subtraction Strategies - 4.NBT.4(-) A Tale of Two Strategies - 4.NBT.4(-) Modern Technology - 4.NBT.4(-) Volunteer Fire Station - 4.NBT.4(+/-) Number Line Addition & Subtraction <p><u>Illustrative Mathematics:</u></p> <ul style="list-style-type: none"> - 4.NBT.4(-) To regroup or not to regroup <p><u>Inside Mathematics:</u></p> <ul style="list-style-type: none"> - 4.NBT.4(+/-) Miles of Tiles 	<p>-RCM Prerequisite Lessons</p> <ul style="list-style-type: none"> - Grade 3 - Lesson 2 - Lesson 3 <p>-RCM Tools for Instruction</p> <p>-RCM Exit Tickets</p>

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	<ul style="list-style-type: none"> - 4.NBT.4(+/-) Once Upon a Time K-5 Math Teaching Resources: - 4.NBT.4(+) Make the Largest Sum Learnzillion: - 4.NBT.4(+) Adding using the standard algorithm - 4.NBT.4(+) Adding numbers that involve regrouping - 4.NBT.4(-) Subtract using the standard algorithm - 4.NBT.4(-) Subtracting numbers that involve regrouping - 4.NBT.4(+/-) Multi-digit addition and subtraction word problems 	
Vocabulary for Students - Unit 1 Digital Word Wall	Mentor Text List	
<ul style="list-style-type: none"> - Addend - Algorithm - Difference - Estimate (noun) - Estimate (verb) - Reasonable - Regroup - Round - Sum <p>These vocabulary words are part of the UNIT 1 Word Wall</p>	<ul style="list-style-type: none"> - <i>The Action of Subtraction</i> by Brian Cleary - <i>A Fair Bear Share</i> by Stuart J. Murphy - <i>Hershey's Kisses Addition Book</i> by Jerry Pallotta - <i>Hershey's Kisses Subtraction Book</i> by Jerry Pallotta - <i>Mission: Addition</i> by Loreen Leedy - <i>The M&M's Subtraction Book</i> by Barbara McGrath - <i>Safari Park</i> by Stuart J. Murphy - <i>Subtraction Action</i> by Loreen Leedy - <i>The Subtraction Book</i> by Jerry Pallotta 	

Topic: Unit Review and Unit Assessment	
Days: 2	UA Review Day: 10/20 Unit Assessment Date: 10/21
Scoring Submission in LinkIt:	Data Review Date:

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**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: Work with Whole Numbers		
Student Learning Standard(s):	<p>4.NBT.2</p> <p>4.NBT.3</p> <p>4.NBT.4</p>	<ul style="list-style-type: none"> - Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons. - Use place value understanding to round multi-digit whole numbers to any place. - Fluently add and subtract multi-digit whole numbers using the standard algorithm.
Math Practices:	<ul style="list-style-type: none"> • 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. 	
Days:	Focus: (Major Content)	Benchmarked Standard: N Fluency Standard: Y
Critical Knowledge & Skills		
Objective:	<p>We are learning to: Apply multiple skills from the unit to solve real-world problems related to visitors to a gaming blog site. Problems involve comparing, ordering, adding, subtracting, rounding, and estimating multi-digit whole numbers.</p>	
Essential Question(s):	<p>How are place value patterns repeated in large numbers?; When is estimation more appropriate than finding the 'right' answer?; What strategies make a reasonable estimate?; How do you make sense of different strategies?; How do you determine their strengths and weaknesses?</p>	

Core Resources		
Core Whole Group Resources	Core Formative Assessment	
<p>Ready Classroom Math Lessons</p> <p>Math In Action Work with Whole Numbers</p>	<p>-RCM Lesson Quizzes</p> <p>-CFAs</p>	
Additional Levelled Resources		
Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources

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<p>-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools</p>	<p>-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: N/A -RCM Center Activities -RCM Enrichment Activities</p>	<p>-RCM Prerequisite Lessons -RCM Tools for Instruction -Extra Support Activity -Challenge Activity</p>
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Preparation for College, Careers, and Beyond																																						
Career Ready Practices	Personal Financial Literacy (9.1) and Career Awareness, Exploration, and Preparation (9.2)																																					
<p>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.</p>	<p>Seek opportunities to integrate financial literacy and career readiness into math lessons and activities when appropriate.</p> <p>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</p> <table border="1" data-bbox="1035 760 1986 1170"> <thead> <tr> <th colspan="3" data-bbox="1035 760 1986 800">Personal Financial Literacy (Standard 9.1)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1035 800 1514 834">Strand A</td> <td colspan="2" data-bbox="1514 800 1986 834">Income and Careers</td> </tr> <tr> <td data-bbox="1035 834 1514 868">Strand B</td> <td colspan="2" data-bbox="1514 834 1986 868">Money Management</td> </tr> <tr> <td data-bbox="1035 868 1514 902">Strand C</td> <td colspan="2" data-bbox="1514 868 1986 902">Credit and Debt Management</td> </tr> <tr> <td data-bbox="1035 902 1514 937">Strand D</td> <td colspan="2" data-bbox="1514 902 1986 937">Planning, Saving, and Investing</td> </tr> <tr> <td data-bbox="1035 937 1514 971">Strand E</td> <td colspan="2" data-bbox="1514 937 1986 971">Becoming a Critical Consumer</td> </tr> <tr> <td data-bbox="1035 971 1514 1005">Strand F</td> <td colspan="2" data-bbox="1514 971 1986 1005">Civic and Financial Responsibility</td> </tr> <tr> <td data-bbox="1035 1005 1514 1039">Strand G</td> <td colspan="2" data-bbox="1514 1005 1986 1039">Insuring and Protecting</td> </tr> <tr> <th colspan="3" data-bbox="1035 1039 1986 1073">Career Awareness, Exploration, and Preparation (Standard 9.2)</th> </tr> <tr> <td data-bbox="1035 1073 1514 1107">Strand A</td> <td colspan="2" data-bbox="1514 1073 1986 1107">Career Awareness (by end of Grade 4)</td> </tr> <tr> <td data-bbox="1035 1107 1514 1141">Strand B</td> <td colspan="2" data-bbox="1514 1107 1986 1141">Career Exploration (by end of Grade 8)</td> </tr> <tr> <td data-bbox="1035 1141 1514 1170">Strand C</td> <td colspan="2" data-bbox="1514 1141 1986 1170">Career Preparation (by end of Grade 12)</td> </tr> </tbody> </table>		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)	
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Cross-Curricular Connections	
Interdisciplinary Connections	Technology Integration and Literacy
<ul style="list-style-type: none"> Literature connections (math mentor texts identified in “Resources and Activities”) Math journals Math word wall 	<p>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.</p>

● Literacy Connections & Activities Ready Classroom Math

Possible Modifications and Accommodations

Special Education	At-Risk	Gifted	English Language Learners
<p><i>*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.</i></p> <p>Possible Modifications/Accommodations</p> <ul style="list-style-type: none"> ● 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 ● 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 	<p>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.</p> <p><i>*Refer to the individual student Math Plan for specific interventions.</i></p>	<p><i>*Teachers should select the appropriate modifications and/or accommodations for Gifted and Talented according to the following suggestions.</i></p> <p>Differentiating instruction based on:</p> <ul style="list-style-type: none"> ● 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 <p>To differentiate content consider:</p> <ul style="list-style-type: none"> ● 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) <ul style="list-style-type: none"> ○ For Example: tiering problem solving scenarios making a gifted learner's scenario more complex ○ 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 <i>individualized</i> 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) <p>To differentiate the process consider:</p> <ul style="list-style-type: none"> ● How students are grouped ● Tiering materials used (e.g., graphic organizers varying in complexity, types of questions asked - DOK level) <ul style="list-style-type: none"> ○ For Example: <i>Below-Grade-Level Question:</i> ●●●●●● + ? = ●●●●●●●●●● <i>On-Grade-Level Question (Grade 1):</i> 6 + ? = 10 <i>Above-Grade-Level Question:</i> Jon has 6 puppies. He wants to have 10 puppies. How many more puppies does he need to buy? 	<ul style="list-style-type: none"> ● 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 ● 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

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<ul style="list-style-type: none"> ● 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 		<p>To differentiate the product consider:</p> <ul style="list-style-type: none"> ● 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) ● Using open ended tasks (have more than one correct answer and/or more than one way to get to/explain an answer) <ul style="list-style-type: none"> ○ For Example: (Grade 2) Use the digits 0 to 9, at most one time each, to make a true statement. $\square\square - \square\square = \square\square + \square\square$ (Open Middle Link) ○ 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. $\square\square\square + \square\square\square + \square\square\square$ (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			