



## Alloway Township School

*Home of the Tigers*

*Amy Morley*  
Chief School Administrator

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Business Administrator

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### **Grade 5 Unit 1 — Dates: 9/10/24 - 10/16/24**

#### **Rationale for Unit 1 Expectations**

Unit 1 focuses on the concepts of volume, multi-digit multiplication and division, and fluency with whole number multiplication. Learners begin to develop fluency for multiplication strategies by building on work done in 4th grade with the area model. They continue work building fluency with multiplication of whole numbers using the standard algorithm. These concepts lay the foundation for introducing learners to multiplication of decimals to hundredths. Similarly, learners extend the work done in 4th grade with the area model for division and divide whole numbers by using concrete models, drawings, and various strategies to divide.

Learners build upon earlier work in grade 3 tiling rectangular figures to develop the concept of area. Now in grade 5, learners pack rectangular prisms with unit cubes to develop the concept of volume. They recognize volume as an attribute of solid figures, understand foundational concepts of volume measurement, and measure volumes by counting unit cubes of various standard and non-standard units. They relate volume to the operations of multiplication and addition and solve real world and mathematical problems by applying volume formulas  $V = l \times w \times h$  and  $V = B \times h$  to rectangular prisms with whole number edge lengths. Learners recognize volume as additive and use the concept to determine volumes of composite solid figures composed of right rectangular prisms.

#### **Unit 1 Description & Expectations**

Days of Instruction: 26 days (iReady sessions (\*Includes Lesson Zero), Math In Action, Unit Review, Unit Assessment)

Unit Completion Date: 10/16

Unit Topics/Themes: Applying Multiplication and Division to find Volume

[Topic: Setting Learning Routines](#)

[Topic: Lesson 4 - Multiply Multi-Digit Whole Numbers](#)(Apply strategies to multiply and divide multi-digit numbers)

[Topic: Lesson 5 - Divide Multi-Digit Whole Numbers](#) (Apply strategies to multiply and divide multi-digit numbers)

[Topic: Lesson 1 - Understanding Volume](#) (Volume is the amount of space inside a 3-D figure)

[Topic: Lesson 2 - Find Volume Using Unit Cubes](#) (You can use what you know about calculating area as the first step in calculating the volume of rectangular prisms)

[Topic: Lesson 3 - Find Volumes Using Formulas](#)

[Topic: Unit Review and Assessment](#)

[Topic: Math In Action](#)

| Whole Group Instruction  | Differentiation: Teacher Table   | Differentiation: Independent Practice/Small Group Center   |
|--|--|--|
| <b>Guidelines</b>  |  |  |
| <b>30-45 minutes of daily instruction using Core Resources</b>   | <b>30-45 minutes of daily differentiation</b>  |  |
| <p><b>Number Sense Making Routines: (5-10 minutes daily)</b><br/>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 &amp; Less, Benchmark Numbers, Part-Part-Whole, Magnitude, etc.</p> <p><b>Core Resource for Whole Group Instruction:</b> Ready Classroom Math (30-45 minutes daily)</p> | <p><b>Number of groups to meet with each day: two</b></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</p> | <p>Activities should be aligned to specific skills &amp; standards addressed during whole group instruction and practice of fluency standards.</p> |

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 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

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 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 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

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, Rework, 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

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.

|   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>○ <i>Teacher Moves</i> - Turn &amp; Talk, Individual Think Time and Four Rs</li> </ul> <p><b>Closing: (2-5 minutes daily)</b><br/> 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>  |  |  |
| <b>Whole Group Instruction</b>  | <b>Differentiation: Teacher Table</b>  | <b>Differentiation: Independent Practice/Small Group Center</b>  |
| <b>Unit Resources</b>   |  |  |
| <ul style="list-style-type: none"> <li>● Suggested Pacing Guide</li> <li>● Ready Unit Flow and Progression Video</li> <li>● Ready Math Background: Models, Progressions, and Teaching Tips</li> <li>● Ready Interactive Tutorials</li> <li>● Ready Unit Self Reflection</li> <li>● Ready Unit Review</li> <li>● Ready Discourse Cards/Cube</li> <li>● Ready Digital Math Tools</li> <li>● Silent Hand Signals</li> <li>● <a href="#">Georgia Frameworks</a> (K-5)</li> <li>● Howard County, MD: <ul style="list-style-type: none"> <li>○ <a href="#">Gr 5</a></li> </ul> </li> <li>● Achieve the Core <a href="#">Coherence Map</a></li> <li>● <a href="#">Illustrative Mathematics</a></li> <li>● Mindset Mathematics (<a href="#">Gr 3-6</a>) by Jo Boaler</li> </ul> | <ul style="list-style-type: none"> <li>● Scheduling Small Groups and Rotations</li> <li>● CFAs</li> <li>● RCM Fluency Practice Pages</li> <li>● RCM Prerequisite Lessons</li> <li>● RCM Tools for Instruction Lessons</li> <li>● RCM Discourse Bookmarks</li> <li>● <a href="#">K-5 Math Teaching Resources</a><br/>(no direct links to free documents!)</li> <li>● Virtual Manipulatives: <ul style="list-style-type: none"> <li>○ <a href="#">Brainiaccamp</a>- counters, base ten blocks, number</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>● Scheduling Small Groups and Rotations</li> <li>● RCM Unit Game</li> <li>● RCM Literacy Connections Activities</li> <li>● RCM Discourse Bookmarks</li> <li>● <a href="#">K-5 Math Teaching Resources</a><br/>(no direct links to free documents!)</li> <li>● Howard County, MD: <ul style="list-style-type: none"> <li>○ <a href="#">Gr 5</a></li> </ul> </li> </ul> |

- [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)
  - [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)

- line, 100s chart, graphs, fractions, measurement
- [TheMathLearningCenter](#) - ten frames, counters, time, number line, math rack, geoboards
- [SplatSquare-InteractiveHundredthsChart](#)
- [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   |
|---|--|--|
| <b>Assessments</b>  |  |  |
| <ul style="list-style-type: none"> <li>● Ready Unit Assessment</li> <li>● Ready Lesson Quizzes</li> <li>● Ready - Math In Action</li> <li>● CFAs</li> <li>● Exit Tickets</li> </ul>   | <ul style="list-style-type: none"> <li>● Daily log of small group instruction</li> <li>● Anecdotal Notes</li> <li>● Grade Level Math Interview</li> <li>● CFAs</li> <li>● RCM Fluency Practice Pages</li> <li>● RCM Prerequisite Lessons</li> <li>● RCM Tools for Instruction Lessons</li> <li>● Exit Tickets</li> <li>● Achieve the Core <a href="#">Coherence Map</a></li> <li>● <a href="#">Illustrative Mathematics</a></li> </ul> | <p>Examples of accountability measures: Recording sheets, Fluency Practice Pages, exit tickets, rubrics, reflections, etc.</p> |
| Whole Group Instruction   | Differentiation: Teacher Table   | Differentiation: Independent Practice/Small Group Center   |
| <b>Standards</b>  |  |  |
| <p>5.M.B.2 (old 5.MD.C.3) Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> <p style="padding-left: 20px;">a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.</p> <p style="padding-left: 20px;">b. A solid figure which can be packed without gaps or overlaps using <math>n</math> unit cubes is said to have a volume of <math>n</math> cubic units.</p> <p>5.M.B.3 (old 5.MD.C.4) Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units.</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><b>**Unit 1 Center Focuses:</b></p> <p><b>4.NBT.B.5</b> Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of</p>   |  |

5.M.B.4 (old 5.MD.C.5) Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

- a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.
- b. Apply the formulas  $V = l \times w \times h$  and  $V = B \times h$  for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.
- c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

5.NBT.B.5 With accuracy and efficiency multiply multi-digit whole numbers using the standard algorithm.

5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

**5.NBT.B.5** With accuracy and efficiency multiply multi-digit whole numbers using the standard algorithm.

**4.NBT.B.6** Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

**4.MD.A.3** Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

**4.NBT.A.3** Use place value understanding to round multi-digit whole numbers to any place.



## Unit 1 Math Pacing Guide

| Topic: Setting Learning Routines   |   |   |
|--|---|---|
| <b>Student Learning Standard(s):</b>                                     | <p><b>4.MD.A.3</b></p> <p><b>4.NBT.B.5</b></p>  | <p>-Apply the area and perimeter formulas for rectangles in real world and mathematical problems. <i>For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.</i></p> <p>-Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> |
| <b>Math Practices:</b>   | <ul style="list-style-type: none"> <li>• MP.1 Make sense of the problem and persevere in solving them.</li> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• MP.3 Construct viable arguments and critique the reasoning of others.</li> <li>• MP.4 Model with Mathematics.</li> <li>• MP.5 Use appropriate tools strategically.</li> <li>• MP.6 Attend to precision.</li> <li>• MP.7 Look for and make use of structure.</li> <li>• MP.8 Look for and express regularity in repeated reasoning.</li> </ul> |   |
| <b>Days:</b> 5<br>iReady Diagnostic: 9/9 - 9/10<br>Lesson 0: 9/11 - 9/13 | <b>Focus:</b> (Major Content)   | <b>Benchmarked Standard:</b> N<br><b>Fluency Standard:</b> N  |
| Critical Knowledge & Skills  |   |   |
| <b>Objective:</b>  | We are learning to: think and talk like mathematicians.   |   |
| <b>Essential Question(s):</b>  | 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**

-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  
Activities:  
-And I'm a Mathematician  
-Dot Card and Number Talks  
-Good Groupwork

**Resources listed below are from Gr 4  
Unit 3 Guidance Doc:**

-Number Sense Lessons/Resources  
Cache County:  
- [4.MD.3 Yard Crashers](#)  
- [4.MD.3 Designing Your Own  
Bedroom](#)  
- [4.MD.3 You Are the Architect](#)

**Differentiated Independent Activities/Center Ideas**

**Resources listed below are from Gr 4 Unit 3 Guidance Doc:**

-Center Activities (4.MD.3)  
Cache County:  
- [4.MD.3 Yard Crashers](#)  
- [4.MD.3 Designing Your Own Bedroom](#)  
- [4.MD.3 You Are the Architect](#)  
- [4.MD.3 How Much Does Boog Weigh?](#)  
- [4.MD.3 Grandpa's Playground](#)  
- [4.MD.3 Double Trouble](#)  
Georgia Framework:  
- [4.MD.3 Perimeter and Area](#)  
- [4.MD.3 Parking Lot](#)  
Howard County, MD:  
- [4.MD.3 Community Pool](#)  
- [4.MD.3 Which Pool?](#)  
- [4.MD.3 Help the Bees](#)  
- [4.MD.3 Zoo Exhibit Contest](#)  
- [4.MD.3 Carpet Costs](#)  
- [4.MD.3 What Happens to the Area?](#)

**Teacher Table Differentiated Resources**

|  |   |         |   |                         |  |                  |         |          |            |   |      |         |          |  |   |
|--|---|---------|---|-------------------------|--|------------------|---------|----------|------------|---|------|---------|----------|--|---|
| <ul style="list-style-type: none"> <li>- <a href="#">4.MD.3 How Much Does Boog Weigh?</a></li> <li>- <a href="#">4.MD.3 Grandpa's Playground</a></li> <li>- <a href="#">4.MD.3 Double Trouble</a></li> <li><b>Georgia Framework:</b></li> <li>- <a href="#">4.MD.3 Perimeter and Area</a></li> <li>- <a href="#">4.MD.3 Parking Lot</a></li> <li><b>Inside Mathematics:</b></li> <li>- <a href="#">4.MD.3 Fair Play</a></li> </ul> <p>-Interactive Tools</p> <ul style="list-style-type: none"> <li>- <a href="#">Interactive Perimeter and Area</a></li> <li>- <a href="#">Finding Area and Perimeter of Rectangles</a></li> <li>- <a href="#">How to Find Area and Perimeter Song</a></li> </ul>   | <ul style="list-style-type: none"> <li>- <a href="#">4.MD.3 Choosing a Pool and a Garden</a></li> <li>- <a href="#">4.MD.3 Puppy Fencing</a></li> <li>- <a href="#">4.MD.3 Soccer Party</a></li> <li>- <a href="#">4.MD.3 Perimeter Polygons</a></li> <li><b>Illustrative Math:</b></li> <li>- <a href="#">4.MD.3 Karl's Garden</a></li> <li><b>Inside Mathematics:</b></li> <li>- <a href="#">4.MD.3 Surrounded and Covered</a></li> <li>- <a href="#">4.MD.3 Fair Play</a></li> <li><b>K-5 Math Teaching Resources:</b></li> <li>- <a href="#">4.MD.3 Fencing a Garden</a></li> <li>- <a href="#">4.MD.3 Designing a Zoo Enclosure</a></li> </ul> |         |   |                         |  |                  |         |          |            |   |      |         |          |  |   |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; background-color: #fce4d6; text-align: center;"><b>Vocabulary for Students - Unit 1 Digital Word Wall</b></td> <td style="width: 50%; background-color: #d1ecf1; text-align: center;"><b>Mentor Text List</b></td> </tr> <tr> <td data-bbox="191 789 1152 1027"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Partial Products</td> <td style="width: 33%;">Factors</td> <td style="width: 33%;">Product</td> </tr> <tr> <td>Area Model</td> <td>Perimeter</td> <td>Area</td> </tr> <tr> <td>Formula</td> <td>Variable</td> <td></td> </tr> </table> </td> <td data-bbox="1152 789 2095 1027" style="vertical-align: top; padding: 5px;"> <p><a href="#"><i>Perimeter, Area, and Volume: A Monster Book of Dimensions</i> by David A. Adler</a></p> </td> </tr> </table> |   |         | <b>Vocabulary for Students - Unit 1 Digital Word Wall</b> | <b>Mentor Text List</b> | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Partial Products</td> <td style="width: 33%;">Factors</td> <td style="width: 33%;">Product</td> </tr> <tr> <td>Area Model</td> <td>Perimeter</td> <td>Area</td> </tr> <tr> <td>Formula</td> <td>Variable</td> <td></td> </tr> </table> | Partial Products | Factors | Product  | Area Model | Perimeter   | Area | Formula | Variable |  | <p><a href="#"><i>Perimeter, Area, and Volume: A Monster Book of Dimensions</i> by David A. Adler</a></p> |
| <b>Vocabulary for Students - Unit 1 Digital Word Wall</b>  | <b>Mentor Text List</b>   |         |   |                         |  |                  |         |          |            |   |      |         |          |  |   |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Partial Products</td> <td style="width: 33%;">Factors</td> <td style="width: 33%;">Product</td> </tr> <tr> <td>Area Model</td> <td>Perimeter</td> <td>Area</td> </tr> <tr> <td>Formula</td> <td>Variable</td> <td></td> </tr> </table>   | Partial Products  | Factors | Product   | Area Model              | Perimeter  | Area             | Formula | Variable |            | <p><a href="#"><i>Perimeter, Area, and Volume: A Monster Book of Dimensions</i> by David A. Adler</a></p> |      |         |          |  |   |
| Partial Products   | Factors   | Product |   |                         |  |                  |         |          |            |   |      |         |          |  |   |
| Area Model   | Perimeter   | Area    |   |                         |  |                  |         |          |            |   |      |         |          |  |   |
| Formula  | Variable  |         |   |                         |  |                  |         |          |            |   |      |         |          |  |   |

| Topic: Lesson 4 - Multiply Multi-Digit Whole Numbers |   |   |
|--|---|---|
| <b>Student Learning Standard(s):</b>                 | <b>5.NBT.B.5</b>  | With accuracy and efficiency multiply multi-digit whole numbers using the standard algorithm. |
| <b>Math Practices:<br/>(add 7 &amp; 8 as needed)</b> | <ul style="list-style-type: none"> <li>• MP.1 Make sense of the problem and persevere in solving them.</li> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• MP.3 Construct viable arguments and critique the reasoning of others.</li> <li>• MP.4 Model with Mathematics.</li> <li>• MP.5 Use appropriate tools strategically.</li> <li>• MP.6 Attend to precision.</li> <li>• MP.8 Look for and express regularity in repeated reasoning.</li> </ul> |   |
| <b>Days:</b> 4<br>9/16 - 9/19                        | <b>Focus:</b> (Major Content)   | <b>Benchmarked Standard:</b> N<br><b>Fluency Standard:</b> Y                                  |
| Critical Knowledge & Skills                          |   |   |
| <b>Objective:</b>                                    | <b>We are learning to:</b> <ul style="list-style-type: none"> <li>• Use the distributive property to break apart factors in order to solve multi-digit multiplication problems.</li> <li>• Multiply three-, four-, and five-digit numbers by two-digit numbers</li> <li>• Use the standard algorithm to solve multi-digit multiplication problems with whole numbers</li> </ul>   |   |
| <b>Essential Question(s):</b>                        | How does my knowledge of basic operations help me solve problems?<br>What makes a strategy both effective and efficient?  |   |

| Core Resources   |  |
|--|--|
| Core Whole Group Resources   | Core Formative Assessment  |
| <a href="#">Ready Classroom Math Lessons</a><br><b>Lesson 4 Prerequisite <i>choose from</i>:</b><br><b>Grade 4 Lesson 11</b> Multiply by One-Digit Numbers - <b>Session 2</b> <i>OR</i><br><b>Grade 4 Lesson 12</b> Multiply by Two-Digit Numbers - <b>Session 2</b> | <ul style="list-style-type: none"> <li>- RCM Lesson Quizzes</li> <li>- RCM Comprehension Checks</li> <li>- CFAs</li> </ul> |

| <p><b>Lesson 4</b><br/>         Session 1 - Try It and Connect It WB pgs<br/>         Session 2 - Try It, Model It, and Connect It WB pgs<br/>         Session 3 - Try It, Model It, and Connect It WB pgs<br/>         Session 4 - Apply It Ques 1-3<br/>         Materials: base ten block, base ten grid paper, grid paper, index cards, multiplication models</p>   |  |  |
|---|--|--|
| <b>Additional Levelled Resources</b>  |  |  |
| <b>Activities and Additional Resources for Whole Group</b>  | <b>Differentiated Independent Activities/Center Ideas</b>  | <b>Teacher Table Differentiated Resources</b>  |
| <p>-Anchor Chart Links<br/>         -Number Sense Lessons/Resources<br/>         -Interactive Tools</p> <p><b>RCM</b><br/>         -Session 1 - Additional Practice WB pgs<br/>         -Session 2 - Apply It WB and Additional Practice WB pgs, Fluency &amp; Skills Practice WS<br/>         -Session 3 - Apply It WB and Additional Practice WB pgs, Fluency &amp; Skills Practice WS<br/>         -Session 4 - Apply It Questions 4-9</p> <p>- 3 Act Task: <a href="#">"Array"bow of Colors</a><br/>         - 3 Act Task: <a href="#">Krispy Krems Me</a></p> <p><u>Virtual Math Manipulatives</u></p> <ul style="list-style-type: none"> <li>• <a href="#">Algebra Tiles</a></li> <li>• <a href="#">Math Learning Center</a></li> </ul> | <p>-iReady Individual Path<br/>         -iReady Teacher Assigned Lessons<br/>         -RCM Interactive Practice: Multiply Multi-Digit Whole Numbers<br/>         -RCM Center Activities<br/>         -RCM Enrichment Activities<br/>         -<a href="#">What Comes Next? 12 In 53 Out</a><br/>         -<a href="#">Which One Doesn't Belong? An Array Away</a><br/>         -<a href="#">Math in Our World: Card Collector</a><br/>         -<a href="#">Howard County Tasks</a> (Preferred Resources Tab)</p> <ul style="list-style-type: none"> <li>• Partial Products &amp; Standard Algorithm:             <ul style="list-style-type: none"> <li>○ Doughnuts for Days</li> <li>○ Many Ways to Multiply</li> <li>○ How Many Meters</li> <li>○ Curriculum Writing Pay</li> </ul> </li> <li>• Standard Algorithm: Multi-Digit Factor x 1-Digit Factor:             <ul style="list-style-type: none"> <li>○ Pool Heat</li> </ul> </li> <li>• Standard Algorithm: Multi-Digit Factor x 2-Digit Factor:             <ul style="list-style-type: none"> <li>○ Flying Birds</li> <li>○ Bad Dog</li> </ul> </li> </ul> <p>- <a href="#">Howard County Printable Center Activities</a> (Independent Work Tab)</p> <ul style="list-style-type: none"> <li>• Greatest Products</li> </ul> | <p>-RCM Prerequisite Lessons<br/>         -RCM Tools for Instruction<br/>         - <a href="#">Georgia Framework</a>:             <ul style="list-style-type: none"> <li>• Multiplication Three in a Row</li> </ul>         - <a href="#">Illustrative Math Tasks</a><br/>         - Exit Tickets             <ul style="list-style-type: none"> <li>• <a href="#">Howard County Assessment Tasks</a> Tab</li> </ul> </p> |

|   |   |                         |   |
|---|---|-------------------------|---|
|   | <ul style="list-style-type: none"> <li>• Least Products</li> <li>• Double and Half</li> </ul> <p><u>Unable to provide Direct Links to the Below Activities</u></p> <p><u>-K-5 Math Teaching Resources:</u></p> <p>5.NBT.B.5 Multiplication Race (2 x 3-digit)</p> <p>5.NBT.B.5 Make the Largest Product (3 x 2-digit)</p> |                         |   |
| <b>Vocabulary for Students - <a href="#">Unit 1 Digital Word Wall</a></b> |   | <b>Mentor Text List</b> |   |
| Algorithm   | Distributive Property   | Factor                  | <a href="#">Each Orange Had 8 Slices: A Counting Book by Paul Giganti</a><br><a href="#">2 x 2 = Boo: A Set of Spooky Multiplication Stories by Loreen Leedy</a><br><a href="#">Pizza Counting by Christina Dobson</a><br><a href="#">Minnie's Diner, by Dayle Ann Dodds</a><br><a href="#">The King's Chessboard, by David Birch</a><br>The Hershey's Milk Chocolate Multiplication Book by Jerry Pallotta |
| Partial Product   | Product   | Area Model              |   |
|   |   | Variable                |   |

| Topic: Lesson 5 - Divide Multi-Digit Whole Numbers |   |   |
|--|---|---|
| <b>Student Learning Standard(s):</b>               | <b>5.NBT.B.6</b>  | Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. |
| <b>Math Practices: (add 7 &amp; 8 as needed)</b>   | <ul style="list-style-type: none"> <li>• MP.1 Make sense of the problem and persevere in solving them.</li> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• MP.3 Construct viable arguments and critique the reasoning of others.</li> <li>• MP.4 Model with Mathematics.</li> <li>• MP.5 Use appropriate tools strategically.</li> <li>• MP.6 Attend to precision.</li> <li>• MP.7 Look for and make use of structure.</li> <li>• MP.8 Look for and express regularity in repeated reasoning.</li> </ul> |   |
| <b>Days:</b> 5<br>9/20 - 9/26                      | <b>Focus:</b> (Major Content)   | <b>Benchmarked Standard:</b> N<br><b>Fluency Standard:</b> N  |
| Critical Knowledge & Skills                        |   |   |
| <b>Objective:</b>                                  | <b>We are learning to:</b> <ul style="list-style-type: none"> <li>• Divide three- and four-digit dividends by two-digit divisors.</li> <li>• Use the relationship between multiplication and division to estimate quotients.</li> <li>• Divide multi-digit whole numbers using area models and strategies such as place-value understanding, properties of operations, estimating quotients, and finding partial quotients.</li> </ul>  |   |
| <b>Essential Question(s):</b>                      | How does my knowledge of basic operations help me solve problems?   |   |
| Core Resources                                     |   |   |
| <b>Core Whole Group Resources</b>                  | <b>Core Formative Assessment</b>  |   |

| <p><a href="#">Ready Classroom Math Lessons</a></p> <p><b>Lesson 5 Prerequisite:</b><br/> <b>Grade 4 Lesson 14</b> Divide Three-Digit Numbers - <b>Session 3</b> <i>AND</i><br/> <b>Grade 4 Lesson 15</b> Divide Four-Digit Numbers - <b>Session 2</b></p> <p><b>Lesson 5</b><br/> Session 1 - Try It and Connect It WB pgs<br/> Session 2 - Try It, Model It, and Connect It WB pgs<br/> Session 3 - Try It, Model It, and Connect It WB pgs<br/> Session 4 - Try It, Model It, and Connect It WB pgs<br/> Session 5 - Apply It questions 1-3<br/> Materials: base-ten blocks, base-ten grid paper, grid paper, index cards</p>                                  | <ul style="list-style-type: none"> <li>- RCM Lesson Quizzes</li> <li>- RCM Comprehension Checks</li> <li>- CFAs</li> </ul>  |  |
|---|---|--|
| <b>Additional Levelled Resources</b>  |   |  |
| <b>Activities and Additional Resources for Whole Group</b>  | <b>Differentiated Independent Activities/Center Ideas</b>   | <b>Teacher Table Differentiated Resources</b>  |
| <ul style="list-style-type: none"> <li>-Anchor Chart Links</li> <li>-Number Sense Lessons/Resources</li> <li>-Interactive Tools</li> <li>-Session 1 - Additional Practice WB pgs</li> <li>-Session 2 - Apply It WB and Additional Practice WB pgs, Fluency &amp; Skills Practice WS</li> <li>-Session 3 - Apply It WB and Additional Practice WB pgs, Fluency &amp; Skills Practice WS</li> <li>-Session 4 - Apply It WB and Additional Practice WB pgs, Fluency &amp; Skills Practice WS</li> <li>-Session 5 - Apply It questions 4-8</li> <li>-3 Act Task: <a href="#">It's Not Just a Mint</a></li> <li>- 3 Act Task: <a href="#">Tomato-Tomato</a></li> </ul> | <ul style="list-style-type: none"> <li>-iReady Individual Path</li> <li>-iReady Teacher Assigned Lessons</li> <li>-RCM Interactive Practice: Divide Multi-Digit Whole Numbers</li> <li>-RCM Center Activities</li> <li>-RCM Enrichment Activities</li> <li>-<a href="#">Same &amp; Different: Equation Elation</a></li> <li>-<a href="#">Mobile Math: Number Hunter</a></li> <li>- <a href="#">Division Squares</a> (TPT Free)</li> <li>-<a href="#">Howard County Tasks</a> (Preferred Resources Tab) <ul style="list-style-type: none"> <li>● Divide Multi-Digit Dividends by 1-Digit Divisors Using Partial Quotients: <ul style="list-style-type: none"> <li>○ Divide Using the Area Model</li> <li>○ Book Reading and Partial Quotients</li> <li>○ Puppy Time</li> <li>○ Summer Reading</li> </ul> </li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>-RCM Prerequisite Lessons</li> <li>-RCM Tools for Instruction</li> <li>- <a href="#">Georgia Framework</a>: Division &amp; Interpreting Remainders, The Grass is Always Greener, Division Four in a Row, Are These All <math>364 \div 15</math>?</li> <li>- <a href="#">Illustrative Math Tasks</a></li> <li>- Exit Tickets <ul style="list-style-type: none"> <li>● <a href="#">Howard County Assessment Tasks</a> Tab</li> </ul> </li> </ul> <p style="text-align: center;"><b>Tiered Examples / Supporting Standard through Number Sense</b></p> |



|  |   |          |   |                         |   |          |          |         |                   |   |          |          |  |  |   |
|--|---|----------|---|-------------------------|---|----------|----------|---------|-------------------|---|----------|----------|--|--|---|
| <p><u>Virtual Math Manipulatives</u></p> <ul style="list-style-type: none"> <li>• <a href="#">Visual division</a></li> <li>• <a href="#">Math Learning Center</a></li> </ul>   | <ul style="list-style-type: none"> <li>• Divide Multi-Digit Dividends by 2-Digit Divisors Using Partial Quotients: <ul style="list-style-type: none"> <li>○ Parking Lot</li> <li>○ Party Food</li> </ul> </li> <li>- <a href="#">Howard County Printable Center Activities</a> (Independent Work Tab) <ul style="list-style-type: none"> <li>• Least Quotient</li> <li>• Greatest Quotient</li> <li>• Write and Solve a Division Problem</li> <li>• The Range Game</li> </ul> </li> </ul> <p><u>Unable to provide Direct Links to the Below Activities</u></p> <p><u>-K-5 Math Teaching Resources:</u></p> <p>5.NBT.B.6 Division Strategy: Partial Quotients (v. 3)</p> <p>5.NBT.B.6 Estimate the Quotient (v. 2)</p> <p>5.NBT.B.6 Write It, Solve It, Check It! (v. 3)</p> |          |   |                         |   |          |          |         |                   |   |          |          |  |  |   |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; background-color: #fce4d6; text-align: center;"><b>Vocabulary for Students - Unit 1 Digital Word Wall</b></td> <td style="width: 50%; background-color: #d1ecf1; text-align: center;"><b>Mentor Text List</b></td> </tr> <tr> <td data-bbox="191 824 1152 1068"> <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Dividend</td> <td style="width: 33%;">Division</td> <td style="width: 33%;">Divisor</td> </tr> <tr> <td>Inverse Operation</td> <td>Partial Quotient</td> <td>Quotient</td> </tr> <tr> <td>Variable</td> <td></td> <td></td> </tr> </table> </td> <td data-bbox="1152 824 2089 1068"> <p><a href="#">Bean Thirteen by Math McElligott</a></p> <p><a href="#">The Great Divide: A Mathematical Marathon by Dayle Ann Dodds</a></p> <p><a href="#">Divide and Ride by Stuart J. Murphy</a></p> <p><a href="#">The Doorbell Rang by Pat Hutchins</a></p> <p><a href="#">Safari Park by Stuart J. Murphy</a></p> <p><a href="#">A Remainder of One by Elinor J. Pinczes</a></p> </td> </tr> </table> |   |          | <b>Vocabulary for Students - Unit 1 Digital Word Wall</b> | <b>Mentor Text List</b> | <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Dividend</td> <td style="width: 33%;">Division</td> <td style="width: 33%;">Divisor</td> </tr> <tr> <td>Inverse Operation</td> <td>Partial Quotient</td> <td>Quotient</td> </tr> <tr> <td>Variable</td> <td></td> <td></td> </tr> </table> | Dividend | Division | Divisor | Inverse Operation | Partial Quotient  | Quotient | Variable |  |  | <p><a href="#">Bean Thirteen by Math McElligott</a></p> <p><a href="#">The Great Divide: A Mathematical Marathon by Dayle Ann Dodds</a></p> <p><a href="#">Divide and Ride by Stuart J. Murphy</a></p> <p><a href="#">The Doorbell Rang by Pat Hutchins</a></p> <p><a href="#">Safari Park by Stuart J. Murphy</a></p> <p><a href="#">A Remainder of One by Elinor J. Pinczes</a></p> |
| <b>Vocabulary for Students - Unit 1 Digital Word Wall</b>  | <b>Mentor Text List</b>   |          |   |                         |   |          |          |         |                   |   |          |          |  |  |   |
| <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Dividend</td> <td style="width: 33%;">Division</td> <td style="width: 33%;">Divisor</td> </tr> <tr> <td>Inverse Operation</td> <td>Partial Quotient</td> <td>Quotient</td> </tr> <tr> <td>Variable</td> <td></td> <td></td> </tr> </table>  | Dividend  | Division | Divisor   | Inverse Operation       | Partial Quotient  | Quotient | Variable |         |                   | <p><a href="#">Bean Thirteen by Math McElligott</a></p> <p><a href="#">The Great Divide: A Mathematical Marathon by Dayle Ann Dodds</a></p> <p><a href="#">Divide and Ride by Stuart J. Murphy</a></p> <p><a href="#">The Doorbell Rang by Pat Hutchins</a></p> <p><a href="#">Safari Park by Stuart J. Murphy</a></p> <p><a href="#">A Remainder of One by Elinor J. Pinczes</a></p> |          |          |  |  |   |
| Dividend   | Division  | Divisor  |   |                         |   |          |          |         |                   |   |          |          |  |  |   |
| Inverse Operation  | Partial Quotient  | Quotient |   |                         |   |          |          |         |                   |   |          |          |  |  |   |
| Variable   |   |          |   |                         |   |          |          |         |                   |   |          |          |  |  |   |

| Topic: Lesson 1 - Understanding Volume |  |   |
|--|--|---|
| <b>Student Learning Standard(s):</b>   | <b>5.M.B.2</b><br>(old 5.MD.C.3)   | <ul style="list-style-type: none"> <li>- Recognize volume as an attribute of solid figures and understand concepts of volume measurement.               <ul style="list-style-type: none"> <li>a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.</li> <li>b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.</li> </ul> </li> </ul> |
| <b>Math Practices:</b>                 | <ul style="list-style-type: none"> <li style="width: 50%;">• MP.1 Make sense of the problem and persevere in solving them.</li> <li style="width: 50%;">• MP.2 Reason abstractly and quantitatively.</li> <li style="width: 50%;">• MP.3 Construct viable arguments and critique the reasoning of others.</li> <li style="width: 50%;">• MP.4 Model with Mathematics.</li> <li style="width: 50%;">• MP.5 Use appropriate tools strategically.</li> <li style="width: 50%;">• MP.6 Attend to precision.</li> <li style="width: 50%;">• MP.7 Look for and make use of structure.</li> </ul> |   |
| <b>Days:</b> 3<br>9/27 - 10/1          | <b>Focus:</b> (Major Content)  | <b>Benchmarked Standard:</b> N<br><b>Fluency Standard:</b> N  |
| Critical Knowledge & Skills            |  |   |
| <b>Objective:</b>                      | <b>We are learning to:</b> <ul style="list-style-type: none"> <li>• Understand the concept of volume as an attribute of solid figures.</li> <li>• Find the volume of rectangular prisms with whole number side lengths by counting the number of unit cubes that fill the prism without gaps or overlaps.</li> <li>• Use addition and multiplication strategies to find the volume of a rectangular prism.</li> </ul>  |   |
| <b>Essential Question(s):</b>          | How does what you’re measuring determine how you measure it?   |   |

| Core Resources                    |                                  |
|-----------------------------------|----------------------------------|
| <b>Core Whole Group Resources</b> | <b>Core Formative Assessment</b> |

| <p><a href="#">Ready Classroom Math Lessons</a></p> <p><b>Lesson 1</b><br/>         Session 1: Model It WB pgs<br/>         Session 2: Model It and Connect It WB pgs<br/>         Session 3: Apply It</p> <p>Materials: unit cubes</p>  | <ul style="list-style-type: none"> <li>- RCM Lesson Quizzes</li> <li>- RCM Comprehension Checks</li> <li>- CFAs</li> </ul>  |   |
|--|---|---|
| <b>Additional Leveled Resources</b>  |   |   |
| <b>Activities and Additional Resources for Whole Group</b>   | <b>Differentiated Independent Activities/Center Ideas</b>   | <b>Teacher Table Differentiated Resources</b>   |
| <p>-Anchor Chart Links<br/>         -Number Sense Lessons/Resources<br/>         -Interactive Tools</p> <p><b>RCM</b><br/>         -Session 1: Prepare for Volume WB pgs<br/>         -Session 2: Practice with Volume WB pages, Fluency and Skills WS</p> <p>-<a href="#">Building Rectangular Prisms</a><br/>         -<a href="#">What's the Volume?</a><br/>         -3 Act: <a href="#">Stack Em Up</a><br/>         -3 Act: <a href="#">Got Cubes</a></p> <p>Virtual Math Manipulatives</p> <ul style="list-style-type: none"> <li>● <a href="#">Build using unit cubes</a></li> <li>● <a href="#">Math Learning Center</a></li> </ul> | <p>-iReady Individual Path<br/>         -iReady Teacher Assigned Lessons<br/>         -RCM Interactive Practice: Understand Volume<br/>         -RCM Center Activities<br/>         -RCM Enrichment Activities<br/>         -LearnZillion Resources <a href="#">Tasks</a><br/>         - <a href="#">Howard County Tasks</a> (Preferred Resources Tab)</p> <ul style="list-style-type: none"> <li>● Who's Box is Biggest</li> <li>● Box of Clay</li> </ul> <p>- <a href="#">Howard County Printable Center Activities</a> (Independent Work Tab)</p> <ul style="list-style-type: none"> <li>● Same Volume, Different Dimensions</li> <li>● Make it, Fill it, Find it...VolumeCount the Cubes</li> </ul> <p style="text-align: center;"><u>Unable to provide Direct Links to the Below Activities</u></p> <p>-<a href="#">K-5 Math Teaching Resources</a><br/>         5.MD.C.3: Building Rectangular Prisms<br/>         5.MD.C.3: What's Volume?</p> | <p>-RCM Prerequisite Lessons<br/>         -RCM Tools for Instruction<br/>         -RCM WB pgs under Additional Whole Group<br/>         -Georgia Framework: <a href="#">Unit 6: Volume</a> (Differentiating Area and Volume pg 45-49)<br/>         - Exit Tickets</p> <ul style="list-style-type: none"> <li>● <a href="#">Howard County</a> (Assessment Tab)</li> </ul> <p style="text-align: center;"><b>Tiered Examples / Supporting Standard through Number Sense</b></p> |
| <b>Vocabulary for Students - Unit 1 Digital Word Wall</b>  | <b>Mentor Text List</b>   |   |

|              |                   |              |  |
|--------------|-------------------|--------------|--|
| Area         | Cubic unit        | Face         | <a href="#"><i>Perimeter, Area, and Volume: A Monster Book of Dimensions</i> by David A. Adler</a> |
| Plane figure | Rectangular prism | Solid figure |  |
| Square unit  | Unit cube         | Unit square  |  |
| Volume       |                   |              |  |

**Topic:** Lesson 2 - Find Volume Using Unit Cubes

|  |  |   |
|--|--|---|
| <p><b>Student Learning Standard(s):</b></p>                  | <p><b>5.M.B.3</b><br/>(old 5.MD.C.4)<br/><b>5.M.B.4</b><br/>(old 5.MD.C.5)</p>   | <p>- Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units.</p> <p>- Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <p>a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.</p> |
| <p><b>Math Practices:</b></p>                                | <ul style="list-style-type: none"> <li>• MP.1 Make sense of the problem and persevere in solving them.</li> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• MP.3 Construct viable arguments and critique the reasoning of others.</li> <li>• MP.4 Model with Mathematics.</li> <li>• MP.5 Use appropriate tools strategically.</li> <li>• MP.6 Attend to precision.</li> <li>• MP.7 Look for and make use of structure.</li> </ul>   |   |
| <p align="center"><b>Days:</b> 3<br/>10/2 - 10/4</p>         | <p align="center"><b>Focus:</b> (Major Content)</p>  | <p align="center"><b>Benchmarked Standard:</b> N<br/><b>Fluency Standard:</b> N</p>   |
| <p align="center"><b>Critical Knowledge &amp; Skills</b></p> |  |   |
| <p><b>Objective:</b></p>                                     | <p><b>We are learning to:</b></p> <ul style="list-style-type: none"> <li>• Find the volume of a rectangular prism in various cubic units by filling it with unit cubes and counting them or by counting the number of unit cubes in one layer and multiplying by the number of layers.</li> <li>• Find volume by counting improvised units.</li> <li>• Recognize that the volume of a unit cube depends on the measurement unit used for its dimensions.</li> <li>• Determine the third dimension of a rectangular prism given its volume and two dimensions.</li> </ul> |   |
| <p><b>Essential Question(s):</b></p>                         | <p>How does what you're measuring determine how you measure it?</p>  |   |

**Core Resources**

| Core Whole Group Resources  | Core Formative Assessment   |   |
|---|---|---|
| <p><a href="#">Ready Classroom Math Lessons</a><br/> <b>Lesson 2</b><br/>           Session 1 - Try and Connect WB pgs<br/>           Session 2 - Try, Picture, and Model WB pgs<br/>           Session 3 - Apply It WB pgs<br/> <b>***Encourage formula use when students discover it!!!</b><br/>           Materials: unit cubes, grid paper, isometric dot paper</p>   | <ul style="list-style-type: none"> <li>- RCM Lesson Quizzes</li> <li>- RCM Comprehension Checks</li> <li>- CFAs</li> </ul>  |   |
| Additional Levelled Resources   |   |   |
| Activities and Additional Resources for Whole Group   | Differentiated Independent Activities/Center Ideas  | Teacher Table Differentiated Resources  |
| <ul style="list-style-type: none"> <li>-Anchor Chart Links</li> <li>-Number Sense Lessons/Resources</li> <li>-Interactive Tools</li> </ul> <p><b>RCM</b></p> <ul style="list-style-type: none"> <li>-Session 1 - Additional Practice WB pgs</li> <li>-Session 2 - Connect It, Apply, Additional Practice WB pgs, Fluency and Skills WS</li> </ul> <p><a href="#">-Building Rectangular Prisms</a><br/> <a href="#">-What's the Volume?</a><br/>           -3 Act: <a href="#">Stack Em Up</a><br/>           -3 Act: <a href="#">Got Cubes</a><br/>           -3 Act: <a href="#">Packing Sugar</a><br/>           -3 Act: <a href="#">Overflow</a></p> <p><u>Virtual Math Manipulatives</u></p> <ul style="list-style-type: none"> <li>● <a href="#">Build using unit cubes</a></li> <li>● <a href="#">Math Learning Center</a></li> </ul> | <ul style="list-style-type: none"> <li>-iReady Individual Path</li> <li>-iReady Teacher Assigned Lessons</li> <li>-RCM Interactive Practice: Understand and Measure Volume</li> <li>-RCM Center Activities</li> <li>-RCM Enrichment Activities</li> <li>-BrainPop: <a href="#">Volume of prisms</a></li> <li>-<a href="#">Online Activity</a></li> <li>-LearnZillion Resources <a href="#">Tasks</a></li> <li>-<a href="#">Which One Doesn't Belong? Baseballs</a></li> <li>-<a href="#">What Comes Next? Picturesque Prisms</a></li> <li>- <a href="#">Howard County Tasks</a> (Preferred Resources Tab)               <ul style="list-style-type: none"> <li>● Same Volume Different Dimensions</li> <li>● Make it, Fill it, Find it...Volume</li> <li>● Count the Cubes</li> </ul> </li> <li>- <a href="#">Howard County Printable Center Activities</a> (Independent Work Tab)               <ul style="list-style-type: none"> <li>● Make it, Fill it, Find it...Volume</li> <li>● Boxes, Boxes, Boxes</li> <li>● View and Volume of Structures</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>-RCM Prerequisite Lessons</li> <li>-RCM Tools for Instruction</li> <li>-RCM WB pgs under Additional Whole Group</li> <li>-Georgia Framework: <a href="#">Unit 6: Volume</a> (Differentiating Area and Volume pg 45-49)</li> <li>- Exit Tickets               <ul style="list-style-type: none"> <li>● <a href="#">Howard County Assessment Tasks</a> Tab</li> </ul> </li> </ul> <p style="text-align: center;"><b>Tiered Examples / Supporting Standard through Number Sense</b></p> |

|   |   |                   |  |
|---|---|-------------------|--|
|   | <p style="text-align: center;"><u>Unable to provide Direct Links to the Below Activities</u></p> <p style="text-align: center;"><a href="#">-K-5 Math Teaching Resources:</a></p> <p style="text-align: center;">5.MD.C.4 What's the Volume Cards</p> |                   |  |
| <b>Vocabulary for Students - Unit 1 Digital Word Wall</b> |   |                   | <b>Mentor Text List</b>  |
| Cubic unit  | Face  | Rectangular prism | <a href="#"><i>Perimeter, Area, and Volume: A Monster Book of Dimensions</i> by David A. Adler</a> |
| Unit cube   | Volume  | Base (of a prism) |  |

**Topic:** Lesson 3 - Find Volumes Using Formulas- **\*see Educator Note** -[Teacher Tool Box](#)

|  |   |   |   |
|--|---|---|---|
| <p align="center"><b>Student Learning Standard(s):</b></p>                 | <p align="center"><b>5.M.B.4</b><br/>(old 5.MD.C.5)</p>   | <p>Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <ol style="list-style-type: none"> <li>Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.</li> <li>Apply the formulas <math>V = l \times w \times h</math> and <math>V = B \times h</math> for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.</li> <li>Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</li> </ol> |   |
| <p align="center"><b>Math Practices:</b><br/>(add 7 &amp; 8 as needed)</p> | <ul style="list-style-type: none"> <li>• MP.1 Make sense of the problem and persevere in solving them.</li> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• MP.3 Construct viable arguments and critique the reasoning of others.</li> <li>• MP.4 Model with Mathematics.</li> <li>• MP.5 Use appropriate tools strategically.</li> <li>• MP.6 Attend to precision.</li> <li>• MP.7 Look for and make use of structure.</li> <li>• MP.8 Look for and express regularity in repeated reasoning.</li> </ul> |   |   |
| <p align="center"><b>Days:</b> 4<br/>10/7 - 10/10</p>                      | <p align="center"><b>Focus:</b> (Major Content)</p>   |   | <p align="center"><b>Benchmarked Standard:</b> N<br/><b>Fluency Standard:</b> N</p> |
| <p align="center"><b>Critical Knowledge &amp; Skills</b></p>               |   |   |   |
| <p align="center"><b>Objective:</b></p>                                    | <p><b>We are learning to:</b></p> <ul style="list-style-type: none"> <li>• Find the volume of a rectangular prism by multiplying its height by the area of its base.</li> <li>• Solve real-world and mathematical problems involving volumes of rectangular prisms by applying the formulas <math>V = l \times w \times h</math> and <math>V = B \times h</math></li> <li>• Use addition to find volumes of solid figures composed of two non-overlapping rectangular prisms.</li> </ul>                              |   |   |



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| <b>Essential Question(s):</b> | How does what you're measuring determine how you measure it? |
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| <b>Core Resources</b> |
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| Core Whole Group Resources   | Core Formative Assessment  |
|--|--|
| <p><a href="#">Ready Classroom Math Lessons</a><br/> <b>Lesson 3</b><br/>           Session 1 - Try It and Connect It WB pgs<br/>           Session 2 - Try It, Picture It, Model It, and Connect It WB pgs<br/>           Session 3 - Try It and Model It WB pgs<br/>           Session 4 - Apply It Ques 1-6<br/>           Materials: unit cubes, grid paper, isometric dot paper</p> | <ul style="list-style-type: none"> <li>- RCM Lesson Quizzes</li> <li>- RCM Comprehension Checks</li> <li>- CFAs</li> </ul> |

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| <b>Additional Levelled Resources</b> |
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| Activities and Additional Resources for Whole Group   | Differentiated Independent Activities/Center Ideas  | Teacher Table Differentiated Resources   |
|---|---|--|
| <p>-Anchor Chart Links<br/>           -Number Sense Lessons/Resources<br/>           -Interactive Tools</p> <p><b>RCM</b><br/>           -Session 1 - Additional Practice WB pgs<br/>           -Session 2 - Apply It WB and Additional Practice WB pgs, Fluency &amp; Skills Practice WS<br/>           -Session 3 - Apply It WB and Additional Practice WB pgs, Fluency &amp; Skills Practice WS<br/>           -Session 4 - Apply It Questions 7-9</p> | <p>-iReady Individual Path<br/>           -iReady Teacher Assigned Lessons<br/>           -RCM Interactive Practice: Measure Volume Using Formulas<br/>           -RCM Center Activities<br/>           -RCM Enrichment Activities<br/>           -LearnZillion Resources <a href="#">Tasks</a><br/>           -<a href="#">Math in Our World: Pool Time!</a><br/>           -<a href="#">Would You Rather? Popcorn!</a><br/>           - <a href="#">Howard County Tasks</a> (Preferred Resources Tab)</p> <ul style="list-style-type: none"> <li>● Volume of Rectangular Prisms, Applying Formulas:               <ul style="list-style-type: none"> <li>○ The Lunchbox Problem</li> <li>○ Angelfish</li> <li>○ Boxing Glasses</li> </ul> </li> </ul> | <p>-RCM Prerequisite Lessons<br/>           -RCM Tools for Instruction<br/>           -RCM WB pgs under Additional Whole Group<br/>           -Georgia Framework: <a href="#">Unit 6: Volume</a> (Differentiating Area and Volume pg 45-49)<br/>           - <a href="#">Illustrative Math Tasks</a><br/>           - Exit Tickets</p> <ul style="list-style-type: none"> <li>● <a href="#">Howard County</a> (Assessment Tab)</li> </ul> <p style="text-align: center; background-color: yellow;"><b>Tiered Examples / Supporting Standard through Number Sense</b></p> |

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| <p>-3 Act: <a href="#">Stack Em Up</a></p> <p>-3 Act: <a href="#">Got Cubes</a></p> <p>-3 Act: <a href="#">Packing Sugar</a></p> <p>-3 Act: <a href="#">Overflow</a></p> <p><u>Virtual Math Manipulatives</u></p> <ul style="list-style-type: none"> <li>• <a href="#">Build using unit cubes</a></li> <li>• <a href="#">Math Learning Center</a></li> </ul> | <ul style="list-style-type: none"> <li>• Volume of Rectilinear Prisms: Volume as Additive <ul style="list-style-type: none"> <li>○ Bigger Better Volume</li> <li>○ Wedding Cake</li> </ul> </li> </ul> <p>- <a href="#">Howard County Printable Center Activities</a> (Independent Work Tab)</p> <ul style="list-style-type: none"> <li>• Ordering Volume</li> <li>• Same Volume, Different Dimensions</li> <li>• Rolling For Prisms</li> <li>• Bigger, Better Volume</li> <li>• Cereal Box Search</li> </ul> <p><u>Unable to provide Direct Links to the Below Activities</u></p> <p><u>-K-5 Math Teaching Resources:</u></p> <p>5.MD.C.5a Exploring Volume</p> <p>5.MD.C.5b Designing a Toy Box</p> <p>5.MD.C.5b Roll a Rectangular Prism</p> <p>5.MD.C.5c Find the Volume</p> |                           |   |
| <b>Vocabulary for Students - Unit 1 Digital Word Wall</b>  |  | <b>Mentor Text List</b>   |   |
| Area   | Base (of a prism)  | Cubic unit                | <p><a href="#">Perimeter, Area, and <br/>https://hcpss.instructure.com/courses/108/pages/5-dot-md-dot-5-about-the-math-learning-targets-and-rigor</a></p> <p><a href="#">Volume: A Monster Book of Dimensions by David A. Adler</a></p> |
| Formula  | Volume   | Additive/Composite Volume |   |

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|---|---|
| <b>Topic:</b> Unit Review and Unit Assessment |   |
| <b>Days:</b> 2                                | <b>Review Date:</b> 10/15<br><b>Unit Assessment Date:</b> 10/16 |

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| <b>Scoring Submission in LinkIt:</b> | <b>Data Review Date:</b> |
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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                            |   |  |
|--|---|--|
| <b>Student Learning Standard(s):</b>             | <b>5.M.B</b><br><br><b>5.NBT.B</b>  | - Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.<br>- Perform operations with multi-digit whole numbers |
| <b>Math Practices: (add 7 &amp; 8 as needed)</b> | <ul style="list-style-type: none"> <li>• MP.1 Make sense of the problem and persevere in solving them.</li> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• MP.3 Construct viable arguments and critique the reasoning of others.</li> <li>• MP.4 Model with Mathematics.</li> <li>• MP.5 Use appropriate tools strategically.</li> <li>• MP.6 Attend to precision.</li> <li>• MP.7 Look for and make use of structure.</li> </ul>  |  |
| <b>Days: 1</b><br>10/11                          | <b>Focus: (Major Content)</b>   | <b>Benchmarked Standard: N</b><br><b>Fluency Standard: N</b>   |
| Critical Knowledge & Skills                      |   |  |
| <b>Objective:</b>                                | <b>We are learning to:</b> <ul style="list-style-type: none"> <li>• Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to</li> <li>• Use the distributive property to break apart factors in order to solve multi-digit multiplication problems.</li> <li>• Multiply three-, four-, and five-digit numbers by two-digit numbers</li> <li>• Divide three- and four-digit dividends by two-digit divisors.</li> <li>• Use the relationship between multiplication and division to estimate quotients.</li> <li>• Divide multi-digit whole numbers using area models and strategies such as place-value understanding, properties of operations, estimating quotients, and finding partial quotients.</li> </ul> |  |
| <b>Essential Question(s):</b>                    | How does my knowledge of basic operations help me solve problems?<br>How does what you're measuring determine how you measure it?   |  |

| Core Resources  |   |  |
|---|---|--|
| Core Whole Group Resources  | Core Formative Assessment   |  |
|   |   |  |
| Additional Levelled Resources   |   |  |
| Activities and Additional Resources for Whole Group   | Differentiated Independent Activities/Center Ideas  | Teacher Table Differentiated Resources   |
| -Anchor Chart Links<br>-Number Sense Lessons/Resources<br>-Interactive Tools<br><a href="#">Ready Classroom Math Lessons</a><br><b>Math In Action</b> <ul style="list-style-type: none"> <li>● Worm Farm</li> <li>● Goldfish Pool</li> <li>● Robot Area</li> <li>● Layered Dessert</li> </ul> - 3 Act Tasks from Lessons in this Unit | -iReady Individual Path<br>-iReady Teacher Assigned Lessons<br>-RCM Center Activities<br>-RCM Enrichment Activities | -RCM Prerequisite Lessons<br>-RCM Tools for Instruction<br>-Review Previous Unit Assessments |

**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.

**Preparation for College, Careers, and Beyond**

**Career Ready Practices**

**Personal Financial Literacy (9.1), Career Awareness, Exploration, and Preparation (9.2), Life Literacies and Key Skills (9.4)**

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.

9.1.5.CR.1: Compare various ways to give back and relate them to your strengths, interests, and other personal factors

9.1.5.CP.1: Identify the advantages of maintaining a positive credit history

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.

9.1.5.EG.1: Explain and give examples of what is meant by the term "tax."

9.1.5.EG.2: Describe how tax monies are spent

9.1.5.EG.3: Explain the impact of the economic system on one's personal financial goals.

9.1.5. EG.4: Describe how an individual's financial decisions affect society and contribute to the overall economy

9.1.5. EG.5: Identify sources of consumer protection and assistance.

9.1.5.FI.1: Identify various types of financial institutions and the services they offer including banks, credit unions, and credit card companies.

9.1.5.FP.1: Illustrate the impact of financial traits on financial decisions.

9.1.5.FP.2: Identify the elements of being a good steward of money.

9.1.5.FP.3: Analyze how spending choices and decision-making can result in positive or negative consequences.

9.1.5.FP.4: Explain the role of spending money and how it affects wellbeing and happiness (e.g., "happy money," experiences over things, donating to causes, anticipation, etc.).

9.1.5.FP.5: Illustrate how inaccurate information is disseminated through various external influencers including the media, advertisers/marketers, friends, educators, and family members.

9.1.5.PB.1: Develop a personal budget and explain how it reflects spending, saving, and charitable contributions.

9.1.5.PB.2: Describe choices consumers have with money (e.g., save, spend, donate).

9.1.5.RMI.1: Identify risks that individuals and households face.

9.1.5.RMI.2: Justify reasons to have insurance.

| <b>Personal Financial Literacy (Standard 9.1)</b> |   |
|---|---|
| <b>Strand A</b>                                   | <b>Income and Careers</b>                 |
| <b>Strand B</b>                                   | <b>Money Management</b>                   |
| <b>Strand C</b>                                   | <b>Credit and Debt Management</b>         |
| <b>Strand D</b>                                   | <b>Planning, Saving, and Investing</b>    |
| <b>Strand E</b>                                   | <b>Becoming a Critical Consumer</b>       |
| <b>Strand F</b>                                   | <b>Civic and Financial Responsibility</b> |

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|  | 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   |
| <ul style="list-style-type: none"> <li>Literature connections (math mentor texts identified in “Resources and Activities”)</li> <li>Math journals</li> <li>Math word wall</li> <li>Literacy Connections &amp; Activities Ready Classroom Math</li> </ul> | <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> |

| Possible Modifications and Accommodations   |  |  |  |
|---|--|--|--|
| Special Education/504 Plans   | 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><b>Possible Modifications/Accommodations</b></p> <ul style="list-style-type: none"> <li>Number line on desk</li> </ul> | <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</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"> <li><b>Content:</b> What is taught or the material used</li> <li><b>Process:</b> How it is taught or support given or student grouping or environment</li> <li><b>Product:</b> What students produce</li> </ul> <p>To differentiate <b>content</b> consider:</p> | <ul style="list-style-type: none"> <li>Continue practicing vocabulary</li> <li>Demonstrate that vocabulary can have multiple meanings</li> <li>Encourage bilingual supports among students</li> <li>Provide visual cues, graphic representations, gestures, and pictures</li> <li>Rephrase math problems when appropriate</li> </ul> |

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| <ul style="list-style-type: none"> <li>● Extra time on timed calculation assessments</li> <li>● Use of a calculator or chart of basic facts for computation</li> <li>● Use of a graphic organizer to plan ways to solve math problems</li> <li>● Use of concrete materials and objects (manipulatives)</li> <li>● Opportunities for cooperative partner work</li> <li>● Assign fewer problems at one time (e.g., assign only odds or evens)</li> <li>● Basic computation – use counters</li> <li>● Differentiated center-based small group instruction</li> <li>● Fractions – use fraction blocks</li> <li>● Provide a copy of mathematical equations, class notes, and examples for math notebooks</li> <li>● Highlight or underline key words in word problems</li> <li>● If a manipulative is used during instruction, allow its use on a test</li> <li>● Place value – use place value blocks</li> <li>● Provide graph paper for arrays</li> <li>● Provide reteach pages if necessary</li> <li>● Provide several ways to solve a problem if possible</li> <li>● Offer small and large graph paper options</li> <li>● Provide visual aids and anchor charts</li> <li>● Tiered lessons and assignments</li> </ul> | <p>the needs of individual students.</p> <p><i>*Refer to the individual student Math Plan for <b>specific interventions</b>.</i></p> | <ul style="list-style-type: none"> <li>● 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"> <li>○ <b>For Example:</b> tiering problem solving scenarios making a gifted learner’s scenario more complex</li> <li>○ <b>For Example:</b> gifted students could work on deriving the procedure for an abstract concept</li> </ul> </li> <li>● Organizing ideas through graphic organizers</li> <li>● 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)</li> <li>● Using jigsaws</li> <li>● 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)</li> </ul> <p>To differentiate the <b>process</b> consider:</p> <ul style="list-style-type: none"> <li>● How students are grouped</li> <li>● Tiering materials used (e.g., graphic organizers varying in complexity, types of questions asked - DOK level) <ul style="list-style-type: none"> <li>○ <b>For Example:</b> <p><i>Below-Grade-Level Question:</i> ●●●●●● + ? =</p> <p>●●●●●●●●●●</p> <p><i>On-Grade-Level Question (Grade 1):</i> 6 + ? = 10</p> <p><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?</p> </li> </ul> </li> </ul> <p>To differentiate the <b>product</b> consider:</p> <ul style="list-style-type: none"> <li>● Using a choice board (the difficulty of the activity should be noted for each choice and should be at least 3 levels)</li> <li>● Using a menu of options (each item is assigned a point value and students select the route to take)</li> <li>● Using open ended tasks (have more than one correct answer and/or more than one way to get to/explain an answer)</li> </ul> | <ul style="list-style-type: none"> <li>● Build knowledge from real-world examples</li> <li>● Provide manipulatives and symbols</li> <li>● Have students estimate each other’s heights</li> <li>● Have students measure themselves and one another</li> <li>● Have students relate an object they know with a unit of measure</li> <li>● Encourage peer discussions regarding how students are thinking about math</li> <li>● RCM Unit Connect Language Development to Mathematics</li> </ul> |
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|  |  | <p>o <b>For Example:</b> (Grade 2) Use the digits 0 to 9, at most one time each, to make a true statement.</p> <p><input type="text"/><input type="text"/> - <input type="text"/><input type="text"/> = <input type="text"/><input type="text"/> + <input type="text"/><input type="text"/> (<a href="#">Open Middle Link</a>)</p> <p>o <b>For Example:</b> (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. <input type="text"/><input type="text"/><input type="text"/> + <input type="text"/><input type="text"/><input type="text"/> + <input type="text"/><input type="text"/><input type="text"/> (<a href="#">GeoGebra Link</a>)</p> |  |
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**Individualized Learning Opportunities**

Possible independent study and online learning opportunities are embedded within the “Possible Resources and Activities” column for each Topic area. iReady