

# TOWNSHIP OF UNION PUBLIC SCHOOLS



## Grade 3 Mathematics

Adopted: December 19, 2023

## Standards

### Standards (Taught and Assessed):

- **3.OA.A.1** Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as  $5 \times 7$ .
- **3.OA.A.2** Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as  $56 \div 8$ .
- **3.OA.A.3** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

Key: ■ Major Cluster

□ Supporting Cluster

◎ Additional Cluster

### Highlighted Career Ready Practices and 21<sup>st</sup> Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

### Social-Emotional Learning Competencies

- Self-Awareness
- Self-Management
- Social Awareness
- Relationship Skills
- Responsible Decision-Making

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

<p><b>SLO – WALT</b> We are learning to/that</p>	<p><b>Student Strategies</b></p>	<p><b>Formative Assessment</b></p>	<p><b>Ready Lesson Alignment</b></p>	<p><b>Modifications</b> ELL: Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. G&amp;T: Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. At Risk: Individualized as needed. IEP/504: Modifications/Accommodations as stated in IEP. See samples below:</p>
<p><b>3.OA.A.1</b> WALT interpret products of whole numbers in terms of the number of groups and objects**</p>	<p>Use manipulatives to model equal groups and arrays. Use drawings to connect to and explain equations. Remember each group as a single item to be counted</p> <hr/> <p><b>Vocabulary:</b> Equal groups, product, factor, repeated addition, multiply, array</p>	<p>Exit ticket Non verbal check ins Ex: Thumbs up-thumbs down. Self Reflection Student conferences Teacher created pretests Observations/checklists Quick write/Response card <i>Lesson Paper Assessments (Ready Math)</i> <i>Standards Mastery Check Form B (iReady)</i> <i>Comprehension Check Form B (iReady)</i></p>	<p><b>Target Lessons:</b> <b>Lesson 4: Understand the Meaning of Multiplication</b></p>	<p>Modifications per students' IEP Additional manipulatives Read text Clarify words Less problems Provide additional scaffolding Extended time Using prior knowledge</p>

<p><u>Instructional Technology Resources (Where Applicable):</u></p> <p><u>Khan Academy</u></p> <p><u>i-Ready</u></p> <p><u>Learn Zillion</u></p> <p><u>Nearpod Lessons</u></p> <p><u>IXL</u></p> <p><u>Brainpop</u></p> <p><u>Reflex Math</u></p>	<p>-Break Apart a Number to Multiply</p> <p><u>Interactive Practice: Lesson 7</u></p> <p><u>Fluency and Skills Practice 1</u></p> <p><u>Fluency and Skills Practice 2</u></p> <p><u>Fluency and Skills Practice 3</u></p> <hr/> <p><u>Lesson 17: Solve One-Step Word Problems</u></p> <p><u>Using Multiplication and Division</u></p> <p><u>iReady Interactive Tutorials</u></p> <p>-Multiplication Word Problems Part 1</p> <p>-Multiplication Word Problems Part 2</p>
<p><b>SLO – WALT</b></p> <p><b>We are learning to/that</b></p>	<p><b>3.OA.A.2</b></p> <p><b>WALT</b> interpret whole number quotients of whole numbers as the number of objects in each share (or groups) or as the number of shares (or groups) that result from partitioning a total number of objects**</p>
<p><u>Student Strategies</u></p>	<p>Use division to determine the size of each group when the number of groups is known</p> <p>Use division to determine the number of groups when the size of each group is known.</p> <p>Represent division with models and drawings.</p> <p>Write an equation for a division situation.</p> <p>Use division to find how many in each group or how many equal groups</p> <p>Use strategies to divide</p> <p><b>Vocabulary:</b> Equal groups, quotient, dividend, divisor, repeated subtraction, divide, array</p>
<p><u>Formative Assessment</u></p>	<p>Exit ticket</p> <p>Non verbal check ins- Ex: Thumbs up-thumbs down.</p> <p>Self Reflection</p> <p>Student conferences</p> <p>Teacher created pretests</p> <p>Observations/checklists</p> <p>Quick write/Response card</p> <p><b>Lesson Paper Assessments (Ready Math)</b></p> <p><b>Standards Mastery Check Form B (iReady)</b></p> <p><b>Comprehension Check Form B (iReady)</b></p>
<p><u>Ready Lesson Alignment</u></p>	<p><b>Target Lessons:</b></p> <p><b>Lesson 10:</b></p> <p><i>Understand the Meaning of Division</i></p>
<p><u>Modifications</u></p>	<p>Modifications per students' IEPs</p> <p>Additional manipulatives</p> <p>Read text</p> <p>Clarify words</p> <p>Less problems</p> <p>Provide additional scaffolding</p> <p>Extended time</p> <p>Using prior knowledge</p>

Instructional Technology Resources (Where Applicable):

Khan Academy

i-Ready

Learn Zillion

Nearpod Lessons

IXL

Brainpop

Reflex Math

Fluency and Skills Practice 3

**Center Activities:**

3.5 “Solve Word Problems”

3.6 “Writing Equations”

**Enrichment:**

“Race Training”

## Unit 1 - Module B

**Unit Title: Mathematics – Introductory Multiplication and Division Concepts – Unit 1 – Module B**

**Grade level: Grade 3**

**Timeframe: 1st Marking Period; 19 instructional days, 5 assessment days**

### Rationale

#### Grade 3 – Introductory Multiplication and Division Concepts – Unit 1

*Unit 1 focuses on an introduction to multiplication and division concepts. Learners build upon their Grade 2 work with arrays and repeated addition to work with equal groups and larger arrays. They explore this concept of multiplication together with the concept of division. By exploring the concepts together, learners learn to reason about the relationship between the two operations and come to understand division as an unknown-factor problem. Learners use increasingly sophisticated strategies to solve multiplication and division problems involving single digit numbers. As learners apply strategies to solve these problems, they begin working towards accuracy and efficiency (fluency) with these operations. By the end of the unit, learners use drawings and equations with a symbol for the unknown to represent simple two-step word problems using the four operations.*

*Note: Double asterisks (\*\*\*) indicate that the example(s) included within the New Jersey Student Learning Standard may be especially informative when considering the Student Learning Objective.*

### Guiding Questions

- *How can you use multiplication facts, place value, and properties to solve multiplication problems?*
- *What strategies can you use to multiply?*
- *What strategies can you use to divide?*
- *What are some ways you can describe a pattern in a table?*
- *How can you use an array or a multiplication table to find an unknown factor or product?*
- *How can you write a set of related multiplication and division facts?*
- *How can you round numbers?*

## Social-Emotional Learning Competencies

- Self-Awareness
- Self-Management
- Social Awareness
- Relationship Skills
- Responsible Decision-Making

### Instructional Plan Unit 1 – Module B

#### Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
<p><b>iReady Pre-Assessments:</b></p> <p><b>Benchmark Assessment - Paper (Beginning of the Year)</b></p> <p><b>Standards Mastery Assessments - Form A</b></p> <p><b>Comprehension Checks - Form A</b></p> <p><b>iReady Diagnostic</b></p>	<p><b>ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p><b>Examples include:</b></p> <ul style="list-style-type: none"> <li>• Touch Math material</li> <li>• A number line</li> <li>• A multiplication Table</li> <li>• Various manipulatives</li> <li>• Less Questions</li> <li>• Extended Time</li> <li>• Read Aloud Directions and Instructions</li> <li>• Reword for understanding of Context</li> </ul>

<p><b>3.OA.B.5</b> WALT apply properties of operations (commutative property) and (distributive property) as strategies to multiply</p>	<ul style="list-style-type: none"> <li>Model the Commutative &amp; Distribute Property of Multiplication, and use it to find products</li> <li><b>Commutative property:</b> If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known.</li> <li><b>Distributive property:</b> Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56</math>.</li> </ul> <p><i>Essential Vocabulary: Commutative Property of Multiplication</i></p>	<p><b>Standards</b> Mastery Check Form B (iReady) Comprehension Check Form B (iReady)</p>	<p><b>Target Lessons:</b> <b>Lesson 5:</b> Multiply with 0, 1, 2, 5, and 10 <b>Lesson 6:</b> Multiply with 3, 4, and 6 <b>Lesson 7:</b> Multiply with 7, 8, and 9 <b>Lesson 8:</b> Use Order and Grouping to Multiply <b>Additional Coverage:</b> <i>Lesson 9, 10, 12 &amp; 16</i></p>
<p><b>Activities and Resources</b></p> <p>Use counters or objects to model arrays and equal groups for both multiplication facts</p> <p>Give each child a copy of a multiplication table and highlight/color various patterns on the table.</p> <p>Use manipulatives or counters to represent arrays and equal groups to determine the unknown number</p> <p>Talk about Fact Families, Use Fact Family Triangles</p> <p>Talk about repeated addition</p> <p>Use skip counting to model multiplication and repeated addition</p> <p>Identify Even and Odd Numbers</p> <p>Use manipulatives or counters to represent equal groups</p> <p>Use manipulatives or counters to represent arrays</p> <p>Use a number line to model multiplication/repeated addition.</p> <p>Use equal groups, arrays, repeated addition or multiplication to solve the unknown factor in word problems</p> <p>Review text strategies to determine key components of the problem (CUBES)</p> <ul style="list-style-type: none"> <li>Circle the important numbers</li> <li>Underline the question</li> </ul>		<p><b>Ready Math Resources</b></p> <p><b>Lesson 5: Multiply with 0, 1, 2, 5, and 10'</b> <b>iReady Interactive Tutorial "Understand Multiplication Part 1"</b> <b>Lesson 5 - iReady Interactive Practice</b> <u>Fluency and Skills Practice 1</u> <u>Fluency and Skills Practice 2</u></p> <p><b>Lesson 6: Multiply with 3, 4, and 6</b> <b>iReady Interactive Tutorial "Understand Multiplication Part 2"</b> <b>Interactive Practice: Lesson 6</b> <u>Fluency and Skills Practice 1</u> <u>Fluency and Skills Practice 2</u> <u>Fluency and Skills Practice 3</u></p> <p><b>Lesson 7: Multiply with 7, 8, and 9</b> <b>iReady Interactive Tutorial "Break Apart a Number to Multiply"</b> <b>Interactive Practice: Lesson 7</b> <u>Fluency and Skills Practice 1</u> <u>Fluency and Skills Practice 2</u> <u>Fluency and Skills Practice 3</u></p> <p><b>Lesson 8: Use Order and Grouping to Multiply</b> <b>iReady Interactive Tutorial "Use Order and Grouping to Multiply"</b> <b>Lesson 8 - iReady Interactive Practice</b></p>	



<p><b>3.OA.C.7</b> WALT multiply and divide within 100 using strategies such as the relationship between multiplication and division, or properties of operations (working towards accuracy and efficiency)</p>	<ul style="list-style-type: none"> <li>Write a set of related multiplication and division facts</li> <li>Identify factors in a fact family</li> <li>Demonstrate proficiency in multiplying one and two-digit numbers within 100</li> </ul> <p><i>Essential Vocabulary: related facts</i></p>	<p><i>Comprehension Check Form B (iReady)</i></p>	<p><b>Target Lessons:</b> <b>Lesson 5:</b> Multiply with 0, 1, 2, 5, and 10 <b>Lesson 6:</b> Multiply with 3, 4, and 6 <b>Lesson 7:</b> Multiply with 7, 8, and 9 <b>Lesson 12:</b> Multiplication and Division Facts <b>Additional Coverage:</b> <i>Lessons 9, 17 &amp; 18</i></p>
<p><b>Activities and Resources</b></p> <p><b>3.OA.B.6</b> WALT a related multiplication problem with an unknown factor can be used to solve a division problem</p> <ul style="list-style-type: none"> <li><i>Create Fact Family Triangles to demonstrate how multiplication and division are related and can be used to find unknown numbers</i></li> <li><i>Read The Grapes of Math and create math riddles</i></li> <li><i>Create fact cards for faster fluency.</i></li> <li><i>Play fact games on the computer.</i></li> <li><i>Work with a partner/group on center fact fluency games</i></li> <li><i>Student Sharing Activity</i></li> <li><i>Unknown Factor Video</i></li> <li><i>Unknown Factor Tic Tac Toe</i></li> <li><i>Multiplication/Division/Factor Game</i></li> </ul> <p><b>3.OA.C.7</b> WALT multiply and divide within 100 using strategies such as the relationship between multiplication and division, or properties of operations (working towards accuracy and efficiency)</p> <ul style="list-style-type: none"> <li><i>Create fact cards for faster fluency.</i></li> <li><i>Play fact games on the computer.</i></li> </ul>		<p><b>Ready Math Resources</b></p> <p><b>Lesson 11: Understand How Multiplication &amp; Division are related</b> <b>iReady Interactive Tutorial:</b> “Understand Division Part 2”</p> <p><b>Lesson 11 iReady Interactive Practice</b> <b>Resource:</b> <u>Multiplication Triangles Fluency and Skills Practice 1</u></p> <hr/> <p><b>Lesson 5: Multiply with 0, 1, 2, 5, and 10’</b> <b>iReady Interactive Tutorial</b> “Understand Multiplication Part 1” <b>Lesson 5 - iReady Interactive Practice</b> <u>Fluency and Skills Practice 1</u> <u>Fluency and Skills Practice 2</u></p> <hr/> <p><b>Lesson 6: Multiply with 3, 4, and 6</b> <b>iReady Interactive Tutorial</b> “Understand Multiplication Part 2” <b>Interactive Practice: Lesson 6</b> <u>Fluency and Skills Practice 1</u> <u>Fluency and Skills Practice 2</u> <u>Fluency and Skills Practice 3</u></p> <hr/> <p><b>Lesson 7: Multiply with 7, 8, and 9</b></p>	

<p><b>3.NBT.A.1</b> WALT round whole numbers to the nearest 10 or 100, using place value understanding</p>	<ul style="list-style-type: none"> <li>Recall place value: ones, tens, hundreds</li> <li>Name the places in 2 and 3 digit number</li> <li>Compare numbers using place value</li> <li>Determine whether a number rounds up or down</li> <li>Use a number line to round a whole number to the nearest 10 and 100</li> </ul> <p><i>Essential Vocabulary: place value, ones, tens, hundreds, number line, digit, round</i></p>	<p><i>Comprehension Check Form B (iReady)</i></p>	<p><u>Target Lessons:</u> Lesson 1: Use Place Value to Round Numbers <u>Additional Coverage:</u> Lessons 2, 3 &amp; 18</p>
<p><b>Activities and Resources</b></p>		<p><b>Ready Math Resources</b></p>	
<p><b>3.OA.D.8</b> WALT solve simple two-step word problems using the four operations WALT represent two-step word problems using equations with a letter standing for the unknown quantity</p> <ul style="list-style-type: none"> <li>Review text strategies to determine key components of the word problem (ex: CUBES)</li> <li>Review keywords that signal the operation that needs to be used to complete the problem.</li> <li>Use teacher modeling. Use drawings and physical models equations.</li> <li>Hands on activities and practice.</li> <li>Floccabulary Word Problems Video</li> </ul>	<p><u>Lesson 18: “Solve Two Step Word Problems Using the Four Operations”</u> <u>iReady Interactive Tutorial: “Division Word Problems Part 2”</u> <u>Teacher Toolbox</u></p> <ul style="list-style-type: none"> <li>Center Activity 3.15 “Solve 2 Step Word Problems”</li> <li>Center Activity 3.16 “Check Reasonableness”</li> <li>Fluency &amp; Skills Practice 18.1</li> <li>Fluency &amp; Skills Practice 18.2</li> <li>Fluency &amp; Skills Practice 18.3</li> <li>Enrichment Activity: Purple Coins</li> </ul>	<p><u>Lesson 1: Use Place Value to Round Numbers</u> <u>iReady Interactive Tutorials “Understand Hundreds, Tens, and Ones”</u> <u>Lesson 1 iReady Interactive Practice</u> <u>Teacher Toolbox</u></p>	

## Benchmark Assessment 1

<b>Benchmark Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
<u>Unit 1 Benchmark Assessment</u>	<i>Modifications per students' IEP, in addition to: Additional manipulatives, Read text, Clarify words, Less problems, Provide additional scaffolding , Extended time</i>

## Benchmark Assessment 2

<b>Benchmark Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
<i>I-Ready</i>	<i>Modifications per students' IEP, in addition to: Additional manipulatives, Read text, Clarify words, Less problems, Provide additional scaffolding , Extended time</i>

## Summative Assessments (add rows as needed)

<b>Summative Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
Collaboratively Designed Assessment Standards Mastery (I-Ready) National Assessments (iReady) PARCC Assessments (iReady) SBAC Assessment (iReady)	<i>Modifications per students' IEP, in addition to: Additional manipulatives, Read text, Clarify words, Less problems, Provide additional scaffolding , Extended time</i>

## Interdisciplinary Connections

<b>Interdisciplinary Connections</b>
<ul style="list-style-type: none"><li>• <b>SL.3.1.</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on <i>grade 3 topics and texts</i>, building on others' ideas and expressing their own clearly.</li><li>• <b>SL.3.3.</b> Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</li><li>• <b>W.3.2.</b> Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <b>A.</b> Introduce a topic and group related information together; include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.</li><li>• <b>RI.3.7.</b> Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</li></ul>

## Unit 2 Module A

**Unit Title:** Mathematics – Relating Area to Multiplication and Addition – Unit 2 – Module A

**Grade level:** Grade 3

**Timeframe:** 2nd marking period; 11 instructional days, 3 assessment days [14 days total]

### Rationale

*Grade 3 – Relating Area to Multiplication and Addition – Unit 2*

*This unit focuses on the concepts of area, the distributive property, and multiplication. Learners build upon earlier work with arrays and repeated addition from the prior unit and grade to tile rectangular areas, relating area to multiplication and addition. Learners use area models and properties of operations to reason about and to calculate products of whole numbers, using increasingly sophisticated strategies to solve multiplication word problems involving area.*

*By the end of the unit, learners recognize area as additive and use the concept to determine areas of rectilinear figures. As learners apply strategies to solve multiplication and division problems, they continue working towards accurately and efficiently multiplying and dividing within 100 (fluency).*

### Guiding Questions

*How can you solve problems involving area?*

*How can you use the Distributive Property to find the product?*

*Why can you multiply to find the area of a rectangle?*

*How can you find the area of a plane figure?*

*How can you break apart a figure to find the area?*

### Standards

#### **Standards (Taught and Assessed):**

- **3.MD.C.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.
  - a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
  - b. A plane figure which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units.

## Instructional Plan - Unit 2 – Module A

### Pre-Assessment and Reflection

<p><b>Pre-Assessment</b></p> <p><b>iReady Pre-Assessments:</b></p> <p><b>Benchmark Assessment - Paper (Beginning of the Year)</b></p> <p><b>Standards Mastery Assessments - Form A</b></p> <p><b>Comprehension Checks - Form A</b></p> <p><b>iReady Diagnostic</b></p>	<p><b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b></p> <p><b>ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p><b>Examples include:</b></p> <ul style="list-style-type: none"> <li>● Touch Math material</li> <li>● A number line</li> <li>● A multiplication Table</li> <li>● Various manipulatives</li> <li>● Less Questions</li> <li>● Extended Time</li> <li>● Read Aloud Directions and Instructions</li> <li>● Reword for understanding of Context</li> </ul>
--	--

<p><b><u>SLO – WALT</u></b> <b><u>We are learning to/that</u></b></p>	<p><b><u>Student Strategies</u></b></p>	<p><b><u>Formative Assessment</u></b></p>	<p><b><u>Ready Math Lesson Alignment</u></b> <b><u>Activities &amp; Resources</u></b></p>	<p><b><u>Modifications</u></b></p>
<p><b>3.MD.C.5 – WALT</b> the number of <math>n</math> square units covering a plane figure without gaps or overlaps, determines its area</p>	<p><b><u>Essential Vocabulary:</u> unit square, square unit, area, length, width, array, multiply</b></p> <ul style="list-style-type: none"> <li>Measure area of plane figures by counting squares</li> </ul>		<p>“Area Game” <b><u>Fluency and Skills Practice 1</u></b> <i>Flocabulary Area Lesson</i> <i>Cheez-it Area Activity</i></p>	<p><b>ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>
<p><b>3.MD.C.6 – WALT</b> measure area by counting unit squares including square cm, square m, square in, square ft, and nonstandard units</p>	<ul style="list-style-type: none"> <li>Use drawings, models, and manipulatives to count unit squares to find the side lengths and area</li> <li>Multiply 2 side lengths to find the area</li> </ul>	<p>Exit ticket Non verbal check in- Ex: Thumbs up-thumbs down. Self Reflection Student conferences Teacher created pretests</p>	<p><b><u>Target Lesson(s):</u></b> <b><u>Lesson 15:</u></b> “Multiply to Find Area” <b><u>Interactive Tutorials:</u></b></p> <ul style="list-style-type: none"> <li>Add and Multiply to Find Areas</li> </ul>	<p>Modifications per students’ IEPs Additional manipulatives Read text Clarify words Less problems</p>
<p><b>3.MD.C.7.a.b.</b> <b>WALT</b> find the area of a rectangle with whole-number side lengths by tiling it</p>				

<p><b><u>SLO – WALT</u></b> <b><u>We are learning to/that</u></b></p>	<p><b><u>Student Strategies</u></b></p>	<p><b><u>Formative Assessment</u></b></p>	<p><b><u>Ready Math Lesson Alignment</u></b> <b><u>Activities &amp; Resources</u></b></p>	<p><b><u>Modifications</u></b></p> <p>ELL: Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p>G&amp;T: Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p>At Risk: Individualized as needed.</p> <p>IEP/504: Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>
<p><b>3.OA.C.7 – WALT</b> multiply and divide within 100 using strategies such as the relationship between multiplication and division or properties of operations (working towards accuracy and efficiency)</p>	<p><b><u>Essential Vocabulary: unit square, square unit, area, length, width, array, multiply</u></b></p> <ul style="list-style-type: none"> <li>● Write a set of related multiplication and division facts</li> <li>● Identify side lengths as factors to multiply</li> <li>● Demonstrate proficiency in multiplying one and two-digit numbers within 100</li> <li>● If given a total area, understand that is a quotient to find an unknown side length</li> </ul>	<p>Exit ticket Non verbal check ins- Self Reflection Observations/checklists <i>Standards Mastery Check Form B (iReady)</i> <i>Comprehension Check Form B (iReady)</i></p>	<p><b><u>Target Lessons:</u></b> <b>Lessons 5-7:</b> Multiply with 0 through 10 <b>Lesson 12:</b> Multiplication and Division Facts  (SEE UNIT 1 Curriculum for more RESOURCES)</p>	<p>Modifications per students' IEP Additional manipulatives Read text Clarify words Less problems Extended time Using prior knowledge</p> <p><b><u>Enrichment:</u></b> <u>Lesson 5: Shopping Spree</u> <u>Lesson 6: How Many Creatures?</u></p>

<b>Benchmark Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
<i>Teacher Created Assessment</i>	<i>Modifications per students' IEP, in addition to: Additional manipulatives, Read text, Clarify words, Less problems, Provide additional scaffolding , Extended time</i>

**Benchmark Assessment 2**

<b>Benchmark Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
<i>I-Ready</i>	<i>Modifications per students' IEP, in addition to: Additional manipulatives, Read text, Clarify words, Less problems, Provide additional scaffolding , Extended time</i>

**Summative Assessments (add rows as needed)**

<b>Summative Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
Collaboratively Designed Assessment Standards Mastery (I-Ready) National Assessments (iReady) PARCC Assessments (iReady) SBAC Assessment (iReady)	<i>Modifications per students' IEP, in addition to: Additional manipulatives, Read text, Clarify words, Less problems, Provide additional scaffolding , Extended time</i>

**Interdisciplinary Connections**

<b>Interdisciplinary Connections</b>
<ul style="list-style-type: none"> <li>• <b>SL.3.1.</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on <i>grade 3 topics and texts</i>, building on others' ideas and expressing their own clearly.</li> <li>• <b>SL.3.3.</b> Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</li> <li>• <b>W.3.2.</b> Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <b>A.</b> Introduce a topic and group related information together; include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.</li> <li>• <b>RI.3.7.</b> Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</li> </ul>



## Unit 2 Module B

---

**Unit Title: Mathematics – Relating Area to Multiplication and Addition – Unit 2 – Module B**

---

**Grade level: Grade 3**

---

**Timeframe: 2nd marking period; 22 instructional teaching days; 5 assessment days [27 days total]**

---

### **Rationale**

---

*Grade 3 – Relating Area to Multiplication and Addition – Unit 2*

*This unit focuses on the concepts of area, the distributive property, and multiplication. Learners build upon earlier work with arrays and repeated addition from the prior unit and grade to tile rectangular areas, relating area to multiplication and addition. Learners use area models and properties of operations to reason about and to calculate products of whole numbers, using increasingly sophisticated strategies to solve multiplication word problems involving area.*

*By the end of the unit, learners recognize area as additive and use the concept to determine areas of rectilinear figures. As learners apply strategies to solve multiplication and division problems, they continue working towards accurately and efficiently multiplying and dividing within 100 (fluency).*

---

### **Guiding Questions**

---

*How can you solve problems involving area?*

*How can you use the strategy draw a diagram to multiply with multiples of 10*

*What strategies can you use to multiply with multiples of 10?*

*How can you model and record multiplying 1-digit whole numbers by multiples of 10?*

---

## Instructional Plan - Unit 2 – Module B

### Pre-Assessment and Reflection

<p><b>Pre-Assessment</b></p> <p><b>iReady Pre-Assessments:</b></p> <p><b>Benchmark Assessment - Paper (Beginning of the Year)</b></p> <p><b>Standards Mastery Assessments - Form A</b></p> <p><b>Comprehension Checks - Form A</b></p> <p><b>iReady Diagnostic</b></p>	<p><b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b></p> <p><b>ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p><b>Examples include:</b></p> <ul style="list-style-type: none"> <li>● Touch Math material</li> <li>● A number line</li> <li>● A multiplication Table</li> <li>● Various manipulatives</li> <li>● Less Questions</li> <li>● Extended Time</li> <li>● Read Aloud Directions and Instructions</li> <li>● Reword for understanding of Context</li> </ul>
--	--

<p><u>SLO – WALT</u> <u>We are learning to/that</u></p>	<p><u>Student Strategies</u></p>	<p><u>Formative Assessment</u></p>	<p><u>Ready Math Lesson Alignment</u> <u>Activities &amp; Resources</u></p>	<p><u>Modifications</u> ELL: Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary. G&amp;T: Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments. At Risk: Individualized as needed. IEP/504: Modifications/Accommodations as stated in IEP. See samples below:</p>
<p><b>3.NBT.A.3 – WALT</b> multiply one-digit whole numbers by multiples of 10 in the range 10 to 90 using strategies based on place value and properties of operations</p>	<ul style="list-style-type: none"> <li>• Use skip counting, a number line, or a bar model to multiply with the multiples of 10.</li> <li>• Use base-ten blocks or place value to multiply with multiples of 10.</li> <li>• Hands on activities and practice.</li> <li>• Interactive notebook lesson</li> </ul>	<p><i>Standards Mastery Check Form B (iReady)</i> <i>Comprehension Check Form B (iReady)</i></p>	<p><b>Lesson 9:</b> “Use Place Value to Multiply “ <b>Interactive Tutorials:</b> Multiply by Multiples of 10 <u>Fluency and Skills 1</u> <b>Center 3.23</b> <u>“Multiply Multiples of 10</u> <b>Center 3.24</b> <u>“Match the Product”</u></p>	<p><b>Enrichment:</b> <u>Lesson 9: Party Bags</u></p>
<p><b>3.OA.C.7 – WALT</b> multiply and divide within 100 using strategies such as: relationship between multiplication and division or properties of operations (working</p>	<ul style="list-style-type: none"> <li>• Write a set of related multiplication and division facts</li> <li>• Identify side lengths as factors to multiply</li> <li>• Demonstrate proficiency in multiplying one and two-digit numbers within 100</li> </ul>		<p><b>Target Lessons:</b> <b>Lessons 5-7:</b> Multiply with 0 through 10 <b>Lesson 12:</b> Multiplication and Division Facts</p>	

<b>Summative Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
Collaboratively Designed Assessment Standards Mastery (I-Ready) National Assessments (iReady) PARCC Assessments (iReady) SBAC Assessment (iReady)	<i>Modifications per students' IEP; in addition to:          Additional manipulatives, Read text, Clarify words, Less problems, Provide additional scaffolding , Extended time</i>

**Interdisciplinary Connections**

**Interdisciplinary Connections**

- **SL.3.1.** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **W.3.2.** Write informative/explanatory texts to examine a topic and convey ideas and information clearly. **A.** Introduce a topic and group related information together; include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

---

**Unit Title: Mathematics – Relating Area to Multiplication and Addition – Unit 2 – Module C**

---

**Grade level: Grade 3**

**Timeframe: 2nd-3rd marking period; 17 instructional days; 1-4 assessment days [18-21 days total]**

---

**Rationale**

*Grade 3 – Relating Area to Multiplication and Addition – Unit 2*

*This unit focuses on the concepts of area, the distributive property, and multiplication. Learners build upon earlier work with arrays and repeated addition from the prior unit and grade to tile rectangular areas, relating area to multiplication and addition. Learners use area models and properties of operations to reason about and to calculate products of whole numbers, using increasingly sophisticated strategies to solve multiplication word problems involving area.*

*By the end of the unit, learners recognize area as additive and use the concept to determine areas of rectilinear figures. As learners apply strategies to solve multiplication and division problems, they continue working towards accurately and efficiently multiplying and dividing within 100 (fluency).*

---

**Guiding Questions**

*How can you solve problems involving area?*

---

**Standards**

**Standards (Taught and Assessed):**

- **3.MD.C.7** Relate area to the operations of multiplication and addition.
  - d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
- ◎ **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.

**Key:** ■ Major Cluster    □ Supporting Cluster    ◎ Additional Cluster

## Instructional Plan Unit 2 – Module C

### Pre-Assessment and Reflection

<p><b>Pre-Assessment</b></p> <p><b>iReady Pre-Assessments:</b></p> <p><b>Benchmark Assessment - Paper (Beginning of the Year)</b></p> <p><b>Standards Mastery Assessments - Form A</b></p> <p><b>Comprehension Checks - Form A</b></p> <p><b>iReady Diagnostic</b></p>	<p><b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b></p> <p><b>ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p><b>Examples include:</b></p> <ul style="list-style-type: none"> <li>● Touch Math material</li> <li>● A number line</li> <li>● A multiplication Table</li> <li>● Various manipulatives</li> <li>● Less Questions</li> <li>● Extended Time</li> <li>● Read Aloud Directions and Instructions</li> <li>● Reword for understanding of Context</li> </ul>
--	--

<p><b>SLO – WALT</b></p> <p><u>We are learning to/that</u></p>	<p><u>Student Strategies</u></p>	<p><u>Formative Assessment</u></p>	<p><u>Ready Math Lesson Alignment</u></p> <p><u>Activities &amp; Resources</u></p>	<p><b>Modifications ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>
<p><b>3.MD.C.7.d</b></p> <p>WALT decompose rectilinear figures into non-overlapping rectangles and find their areas to solve real world problems</p>	<ul style="list-style-type: none"> <li>● Draw lines in rectilinear non-rectangular shapes to break them into rectangles.</li> <li>● Tell how to find the area of a shape made from rectangles.</li> </ul> <p><b>Essential Vocabulary:</b> <i>area, product, square unit, length, with, units, rectangle</i></p>	<p><u>Comprehension Check</u></p> <p><u>Form B (iReady)</u></p>	<p><u>Fluency &amp; Skills Practice 16.1</u></p> <p><u>Fluency &amp; Skills Practice 16.2</u></p> <p><u>Additional Coverage:</u> <i>Lesson 32: Area and Perimeter of Shapes</i></p>	<p><b>Enrichment:</b></p> <p><u>Tile Design</u></p>

<p><b><u>SLO – WALT</u></b> <b><u>We are learning to/that</u></b></p>	<p><b><u>Student Strategies</u></b></p>	<p><b><u>Formative Assessment</u></b></p>	<p><b><u>Ready Math Lesson Alignment</u></b> <b><u>Activities &amp; Resources</u></b></p>	<p><b><u>Modifications ELL:</u></b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>
<p><b>3.NBT.A.2</b> <b>WALT subtract</b> within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction (working towards accuracy and efficiency)</p>	<p><b><i>Essential Vocabulary:</i></b> <i>partial sums, algorithm, sum, difference, regroup, estimate</i></p>	<p><b><i>Comprehension Check Form B (iReady)</i></b></p>	<p>“Subtract within 1000” <u>Hundreds Place Value Chart</u> <u>Flocabulary Subtraction with Regrouping Video</u> <u>Flocabulary Addition with Regrouping Video</u></p>	<p><b><u>Lesson 2: Addition Grids</u></b> <b><u>Lesson 3: Planning a Trip</u></b></p>

**Benchmark Assessment 1**

<p><b>Benchmark Assessment</b></p>	<p><b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b></p>
<p><i>Teacher Created Assessment</i></p>	<p><i>Modifications per students' IEP, in addition to: Additional manipulatives, Read text, Clarify words, Less problems, Provide additional scaffolding , Extended time</i></p>



---

## Unit Title: Mathematics – Introductory Fraction Concepts – Unit 3 – Module A

---

**Grade level:** Grade 3

**Timeframe:** 2nd parking period; 6 instructional days, 1-2 assessment days [7-8 days total]

---

### Rationale

*Unit 3 focuses on the foundational fraction concepts. It begins by building upon Grade 2 expectation that learners partition circles and rectangles into two, three, or four equal shares, and describe the shares using the words halves, thirds, or fourths. Learners also build upon their work with area in the previous unit to partition shapes into parts with equal areas. They come to understand unit fractions as quantities formed by partitioning a whole into equal parts. They use visual fraction models to represent simple fractions, to generate simple equivalent fractions, and to compare two fractions by reasoning about their size. Learners also come to understand fractions as numbers by placing them on the number line, and that all fractions are built from unit fractions.*

*This unit integrates (1) solving word problems involving telling and writing time to the nearest minute; (2) measuring length using rulers and representing the data on line plots; and (3) solving two-step word problems using the four operations; and working towards accurately and efficiently adding and subtracting within 1000.*

---

### Guiding Questions

*How can you use fractions to describe how much or how many?*

---

### Standards

#### Standards (Taught and Assessed):

- **3.NF.A.1** Understand a fraction  $1/b$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts; understand a fraction  $a/b$  as the quantity formed by  $a$  parts of size  $1/b$ .
- **3.G.A.2** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as  $1/4$  of the area of the shape.*

**Key:** ■ Major Cluster    □ Supporting Cluster    © Additional Cluster

#### Highlighted Career Ready Practices and 21<sup>st</sup> Century Themes/Skills

- 9.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.
- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications and Reflections
<p><b>3.G.A.2 – WALT</b> partition shapes into parts with equal areas</p>	<ul style="list-style-type: none"> <li>Use a fraction to name one part of a whole that is divided into equal parts.</li> <li>Read, write, and model fractions that represent more than one part of a whole that is divided into equal parts.</li> <li>Explore and identify equal parts of a whole.</li> <li>Divide models to make equal shares.</li> </ul>	<p>Exit ticket Non verbal check ins- Example: Thumbs up-thumbs down. Self Reflections Student conferences Teacher created pretests &amp; post-tests Observations &amp; checklists</p>	<p><u>Target Lesson(s)</u> <b>Lesson 33: “Partition Shapes into Parts with Equal Areas”</b> <u>Teacher Toolbox</u></p> <ul style="list-style-type: none"> <li>Center 3.49 “Equal Area”</li> <li>Center 3.50 “Divide Shapes”</li> <li><u>Enrichment: Designing a New Home</u></li> </ul>	<p>Modifications per students’ IEPs Additional manipulatives Read text Clarify words Less problems Provide additional scaffolding</p>
<p><b>3.G.A.2 – WALT</b> express the area of each part as a unit fraction of the whole</p>				<p>See samples below:</p>

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications and Reflections
<p><b>3.NF.A.1 – WALT</b> a fraction <math>a/b</math> as the quantity formed by <math>a</math> parts, where each part has a size of <math>1/b</math>.</p> <p><i>For example, <math>\frac{3}{4}</math> is the quantity that is formed by 3 parts of the 4 total parts where each part has a size of <math>\frac{1}{4}</math>.</i></p>	<p><i>Equal, Unequal, Whole, Fraction, Unit Fraction, Halves, Thirds, Fourths, Sixths, Eighths, Numerator, Denominator</i></p>		<ul style="list-style-type: none"> <li>● “Write the Fraction”</li> <li>● Center 3.26</li> <li>● “Show Fractions”</li> <li>● <u>Enrichment: Colorful Quilts</u></li> </ul>	<p><b>ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>

---

## Unit Title: Mathematics – Introductory Fraction Concepts – Unit 3 – Module B

---

Grade level: Grade 3

---

Timeframe: 3rd marking period; 5 instructional days, 1 assessment day [6 days total]

---

### Rationale

---

*Unit 3 Module B integrates (1) solving word problems involving telling and writing time to the nearest minute.*

---

### Guiding Questions

---

How can you tell time to the nearest minute?

How can you determine the difference between AM and PM?

How do you find elapsed time?

---

### Standards

---

#### Standards (Taught and Assessed):

■ **3.MD.A.1** Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

#### Highlighted Career Ready Practices and 21<sup>st</sup> Century Themes/Skills

- 9.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.
- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

#### Social-Emotional Learning Competencies

- Self-Awareness    Self-Management    Social Awareness    Relationship Skills    Responsible Decision-Making

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
<p><b>3.MD.A.1</b> WALT tell and write time to the nearest minute and measure time intervals in minutes</p>	<ul style="list-style-type: none"> <li>● Read, write, and tell time on analog and digital clocks to the nearest minute.</li> <li>● Have students label each number on a clock face (1–11) with the corresponding 5-minute interval (5–55). Then ask the student to set the clock to various times containing 5-minute intervals.</li> <li>● Use a number line or an analog clock to measure time intervals in minutes.</li> </ul>	<p>Exit ticket Non verbal check in- Example: Thumbs up-thumbs down. Self Reflections Student conferences Teacher created pretests &amp; post-tests Observations &amp; checklists Quick write &amp; Response card <i>Lesson Paper Assessments (Ready Math)</i> <i>Standards Mastery Check Form B (iReady)</i> <i>Comprehension Check Form B (iReady)</i></p>	<p><u>Target Lesson(s)</u> <b>Lesson 27: “Time”</b></p> <p><b>Interactive Tutorials:</b></p> <ul style="list-style-type: none"> <li>● Tell and Write Time</li> </ul> <p><b>Interactive Practice</b> <b>Lesson 27</b></p> <p><b>Teacher Toolbox</b></p> <ul style="list-style-type: none"> <li>● <b>Center 3.31</b> <u>“Time Match”</u></li> <li>● <b>Center 3.32</b> <u>“Solve Time Word Problems”</u></li> <li>● <b>Enrichment:</b></li> </ul>	<p>Modifications per students’ IEPs</p> <p>Additional manipulatives</p> <p>Read text</p> <p>Clarify words</p> <p>Less problems</p> <p>Provide additional scaffolding</p> <p>Extended time</p> <p>Using prior knowledge</p>

## Benchmark Assessment 1

<b>Benchmark Assessment 1</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
<i>Teacher Created Assessment</i>	
<b>Benchmark Assessment 2</b>	<b><u>Modifications per students' IEP in addition to:</u></b>
<i>I-Ready Diagnostics</i>	<ul style="list-style-type: none"><li>• <i>Additional manipulatives</i></li><li>• <i>Read text</i></li><li>• <i>Clarify words</i></li><li>• <i>Less problems</i></li><li>• <i>Provide additional scaffolding</i></li><li>• <i>Extended time</i></li><li>• <i>Text to Speech</i></li></ul>
<b>Summative Assessment</b>	
Collaboratively Designed Assessment Standards Mastery (1-Ready) National Assessments (iReady) PARCC Assessments (iReady) SBAC Assessment (iReady)	

## Interdisciplinary Connections

### Interdisciplinary Connections

- **SL.3.1.** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **W.3.2.** Write informative/explanatory texts to examine a topic and convey ideas and information clearly. **A.** Introduce a topic and group related information together; include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

## Unit Title: Mathematics – Number Concepts and Counting to 10 – Unit 3 – Module C

Grade level: Grade 3

Timeframe: 3rd-4th marking periods; 21 instructional days; 1-5 assessment days [22-26 days total]

### Rationale

*Unit 3 focuses on the foundational fraction concepts. Students will use visual fraction models to represent simple fractions, to generate simple equivalent fractions, and to compare two fractions by reasoning about their size. Learners also come to understand fractions as numbers by placing them on the number line, and that all fractions are built from unit fractions. This unit's module integrates measuring length using rulers and representing the data on line plots.*

### Guiding Questions

*How are fractions used in our daily lives?*

*How can you compare fractions?*

*How can you use measurement to describe the size of something?*

*How do we represent information on a line plot?*

### Standards

- **3.NF.A.2** Understand a fraction  $1/b$  on the number line; represent fractions on a number line diagram.
  - a. Represent a fraction  $1/b$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts. Recognize that each part has size  $1/b$  and that the endpoint of the part based at 0 locates the number  $1/b$  on the number line.
  - b. Represent a fraction  $a/b$  on a number line diagram by marking off a lengths  $1/b$  from 0. Recognize that the resulting interval has size  $a/b$  and that its endpoint locates the number  $a/b$  on the number line.
- **3.NF.A.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
  - a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
  - b. Recognize and generate simple equivalent fractions, e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ . Explain why the fractions are equivalent, by using a visual fraction model.
- **3.NF.A.3** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
  - c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*
  - d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ .
- **3.MD.B.4** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters

Key: ■ Major Cluster

□ Supporting Cluster

◎ Additional Cluster

### Highlighted Career Ready Practices and 21<sup>st</sup> Century Themes/Skills

- 2.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications and Reflections
<p><b>3.NF.A.2</b> WALT fractions are numbers and can be found or represented on the number line</p> <p>WALT represent and recognize a fraction <math>1/b</math> on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into <math>b</math> equal parts and that the endpoint of the part based at 0 locates the</p>	<p>Represent and locate fractions on a number line.</p> <p>Learn to count by halves from 0 to 3.</p> <p>Introduces the idea that fractions are also numbers, just the same as whole numbers are numbers.</p> <p>Help the student understand that one half marks the point halfway between 0-1</p>	<p>Exit ticket</p> <p>Non verbal check ins- Example: Thumbs up-thumbs down.</p> <p>Self Reflections</p> <p>Student conferences</p> <p>Teacher created pretests &amp; post-tests</p> <p>Observations &amp; checklists</p> <p>Quick write &amp; Response card</p>	<p><b>Target Lessons:</b> (<i>Ready Math</i>) <b>Lesson 21:</b> <b>“Understand Fractions on a Number Line”</b></p> <p><b>Interactive Tutorials:</b></p> <ul style="list-style-type: none"> <li>Fractions on a Number Line Part 1</li> <li>Fractions on a Number Line Part 2</li> </ul>	<p>Modifications per students’ IEP</p> <p>Additional manipulatives</p> <p>Read text</p> <p>Clarify words</p> <p>Less problems</p> <p>Provide additional scaffolding</p> <p>Extended time</p> <p>Using prior knowledge</p> <p>ELL: Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p>G&amp;T: Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p>At Risk: Individualized as needed.</p> <p>IEP/504: Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>



SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications and Reflections
<p><b>3.MD.B.4 – WALT</b> generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch</p> <p><b>3.MD.B.4 – WALT</b> make a line plot showing measurement data, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters</p>	<p><i>Intervals, whole, Fractions greater than 1 whole, Equivalent, Equivalent fractions</i></p> <p>Measure length to the nearest half or fourth inch.</p> <p><i>Vocabulary:</i> <i>Inch</i></p>	<p><i>Lesson Paper Assessments (Ready Math) Standards Mastery Check Form B (iReady) Comprehension Check Form B (iReady)</i></p>	<p><b>Lesson 26:</b> “Measure Length and Plot Data on Line Plots”</p> <p><b>Interactive Tutorials:</b></p> <ul style="list-style-type: none"> <li>Prereq: Make Line Plots</li> </ul> <p><b>Teacher Toolbox</b></p> <ul style="list-style-type: none"> <li>Center 3.37 “Measure Objects”</li> </ul>	<p><b>ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>
				<p><b>*See Above Modifications*</b></p> <p><b>Enrichment:</b> <u>How Much Ribbon?</u></p>

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications and Reflections
<p><b>3.NF.A.3b</b> WALT recognize and generate simple equivalent fractions</p> <p>WALT explain why two fractions are equivalent by using a visual fraction model</p>	<p>Compare fractions with the same denominator or numerator using models.</p> <p>Draw a Model Students draw models of same size whole strips, and name equivalent fractions represented as parts of a whole using an area model.</p> <p>Have students cut out one fourth and two eighths from paper models, and place each one on top of the other to prove they are congruent or equivalent.</p>	<p><i>Standards Mastery Check Form B (iReady)</i></p> <p><i>Comprehension Check Form B (iReady)</i></p>		<p>ELL: Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p>G&amp;T: Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p>At Risk: Individualized as needed.</p> <p>IEP/504: Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>
<p><b>3.NF.A.3c</b> WALT express whole numbers as fractions</p>		<p>Exit ticket</p> <p>Non verbal check ins- Example: Thumbs up-thumbs down.</p> <p>Self Reflections</p> <p>Student conferences</p>	<p><u>Lesson 23:</u> “Find Equivalent Fractions”</p> <p><b>Interactive Practice Lesson 23</b></p> <p><u>Teacher Toolbox</u></p> <ul style="list-style-type: none"> <li>Center 3.29: “Building</li> </ul>	<p><u>Road Race</u></p> <p>Modifications per students’ IEP</p> <p>Additional manipulatives</p> <p>Read text</p> <p>Clarify words</p> <p>Less problems</p> <p>Provide additional scaffolding</p>

**3.NF.A.3d**

WALT compare two fractions with the same numerator or the same denominator by reasoning about their size

**Interactive Tutorials:**

- Compare Fractions With the Same Denominator
- Compare Fractions With the Same Numerator

**Teacher Toolbox**

- Center 3.54: Fraction Comparison
- Center 3.30: Comparing Fractions
- Fluency & Skills Practice L24
- Fluency & Skills Practice L25

---

## Unit Title: Mathematics – Relating Area to Multiplication and Addition – Unit 4 – Module A

---

Grade level: Grade 3

---

Timeframe: 10 instructional days, 2 assessment days [12 days total]

---

### Rationale

*Grade 3 – Spatial Reasoning and Fluency with Operations – Unit 4*

This final unit centers on problem solving with geometry and measurement. Learners measure and estimate liquid volumes and masses. They solve one-step word problems involving masses or volumes using the four operations. Building upon previous geometry content from earlier grades, they categorize shapes based on shared attributes. Learners solve real world and mathematical problems involving perimeters of polygons. Learners represent data with scaled graphs, and solve one- and two-step word problems using information presented in scaled graphs. To conclude the year, learners revisit addition and subtraction within 1000, and multiplication and division within 100 to demonstrate accurate and efficient use of strategies (fluency).

---

### Guiding Questions

How can you estimate and measure liquid volume in metric units?

How can you estimate and measure mass in metric units?

How can you use models to solve liquid volume and mass problems?

---

### Standards

#### Standards (Taught and Assessed):

- **3.MD.A.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Key: ■ Major Cluster    □ Supporting Cluster    ◎ Additional Cluster

#### Highlighted Career Ready Practices and 21<sup>st</sup> Century Themes/Skills

- 2.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.
- 2.1.4.A.2 Evaluate available resources that can assist in solving problems.

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications and Reflections
<p><b>3.MD.A.2</b> WALT measure liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l)</p>	<p>Use models to help students recognize units of measurement. Recall estimation strategies in order to estimate volume and mass. Understand real life items that are similar to the mass of a standard unit, to act as a point of reference. <i>Essential Vocabulary: volume, mass, gram, kilogram, liter, balance scale</i></p>	<p>Exit ticket Non verbal check ins- Example: Thumbs up-thumbs down. Self Reflections Student conferences Teacher created pretests &amp; post-tests Observations &amp; checklists Quick write &amp; Response card</p>	<p><b>Lesson 28:</b> <b>“Liquid Volume”</b> <b>Interactive Tutorials:</b></p> <ul style="list-style-type: none"> <li>Solve Problems About Liquid Volume</li> </ul> <p><b>Interactive Practice</b> <u>Fluency &amp; Skills Practice 28.1</u> <u>Fluency &amp; Skills Practice 28.2</u></p> <p><b>Lesson 29:</b> <b>“Mass”</b> <b>Interactive Tutorials:</b></p> <ul style="list-style-type: none"> <li>Solve Problems About Mass</li> </ul> <p><b>Interactive Practice</b> <u>Fluency &amp; Skills Practice 29.1</u> <u>Fluency &amp; Skills Practice 29.2</u></p>	<p>Modifications per students’ IEP Additional manipulatives Read text Clarify words Less problems Provide additional scaffolding Extended time Using prior knowledge</p> <p><b>Enrichment:</b> <u>Fill My Fish Tank</u> <u>Balancing Act</u></p>
<p><b>3.MD.A.2</b> WALT estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l)</p>				

**Benchmark Assessments**

<b>Benchmark Assessment 1</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
<i>Teacher Created Assessment</i>	
<b>Benchmark Assessment 2</b>	<b><u>Modifications per students' IEP, in addition to:</u></b>
<i>I-Ready Diagnostics</i>	<ul style="list-style-type: none"> <li>● <i>Additional manipulatives</i></li> <li>● <i>Read text</i></li> <li>● <i>Clarify words</i></li> <li>● <i>Less problems</i></li> <li>● <i>Provide additional scaffolding</i></li> <li>● <i>Extended time</i></li> <li>● <i>Text to Speech</i></li> </ul>
<b>Summative Assessment</b>	
Collaboratively Designed Assessment	
Standards Mastery (I-Ready)	
National Assessments (iReady)	
PARCC Assessments (iReady)	
SBAC Assessment (iReady)	

**Interdisciplinary Connections**

**Interdisciplinary Connections**

- **SL.3.1.** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **W.3.2.** Write informative/explanatory texts to examine a topic and convey ideas and information clearly. **A.** Introduce a topic and group related information together; include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

---

## Unit Title: Mathematics – Spatial Reasoning and Fluency with Operations – Unit 4 – Module B

---

Grade level: Grade 3

---

Timeframe: 12 instructional days, 3 assessment days [15 days total]

---

### Rationale

---

*Grade 3 – Spatial Reasoning and Fluency with Operations – Unit 4*

This final unit centers on problem solving with geometry and measurement. Learners measure and estimate liquid volumes and masses. They solve one-step word problems involving masses or volumes using the four operations. Building upon previous geometry content from earlier grades, they categorize shapes based on shared attributes. Learners solve real world and mathematical problems involving perimeters of polygons. Learners represent data with scaled graphs, and solve one- and two-step word problems using information presented in scaled graphs. To conclude the year, learners revisit addition and subtraction within 1000, and multiplication and division within 100 to demonstrate accurate and efficient use of strategies (fluency).

---

### Guiding Questions

---

- How can you estimate and measure liquid volume in metric units?
  - How can you estimate and measure mass in metric units?
  - How can you use models to solve liquid volume and mass problems?
- 

### Standards

---

#### Standards (Taught and Assessed):

- 3.G.A.1** Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
- 3.MD.D.8** Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Key:   ■ Major Cluster   □ Supporting Cluster   ⊙ Additional Cluster

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
<p><b>3.G.A.1 – WALT</b> shapes (quadrilaterals) in different categories may share attributes, and that the shared attributes can define a larger category **</p>	<p><b>Help the student to make a table showing triangles, quadrilaterals, and pentagons.</b></p> <ul style="list-style-type: none"> <li>• Draw three different examples of each shape.</li> <li>• Ask the student if any of the shapes she drew have special attributes, such as right angles or sides that are the same length.</li> <li>• Ask the student for any names she might know for these special shapes.</li> </ul> <p><b>Ask questions to lead to understanding the attributes of various shapes, such as:</b></p> <ul style="list-style-type: none"> <li>• What makes a shape a rhombus? <i>-a rhombus is a four-sided polygon having all four sides of equal length.</i></li> </ul>	<p>Exit ticket</p> <p>Non verbal check ins- Example: Thumbs up-thumbs down.</p> <p>Self Reflections</p> <p>Student conferences</p> <p>Teacher created pretests &amp; post-tests</p> <p>Observations &amp; checklists</p> <p>Quick write &amp; Response card</p>	<p><b>Lesson 30:</b> <b>“Understand Categories of Shapes”</b></p> <p><b>Interactive Tutorials:</b> <u>Fluency &amp; Skills Practice 30.1</u></p> <p><b>Teacher Toolbox</b></p> <ul style="list-style-type: none"> <li>• Center 3.47 “Geometry Vocabulary Match”</li> </ul>	<p>Modifications per students’ IEP</p> <p>Additional manipulatives</p> <p>Read text</p> <p>Clarify words</p> <p>Less problems</p> <p>Provide additional scaffolding</p> <p>Extended time</p> <p>Using prior knowledge</p> <p><b>Enrichment:</b> <u>Sorting Shapes</u></p>



SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
<p><b>3.MD.D.8 – WALT</b> solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths</p>	<p><b>Write the word perimeter on the board. Explain that the perimeter of a figure is the distance around the figure.</b></p> <ul style="list-style-type: none"> <li>Use a finger to trace around the edge of a desk to show the meaning of perimeter. Then have the student trace the perimeter of his or her desk, being sure to start and stop at a single point.</li> <li>Give the student a square tile. Demonstrate how to hold the edge of this tile against the outside edge of a figure and then move it in one direction to help count to find the perimeter.</li> </ul> <p><b>Give students 24 square tiles, separated into two equal groups of 12 each.</b></p>	<p>Exit ticket</p> <p>Non verbal check ins- Example: Thumbs up-thumbs down.</p> <p>Self Reflections</p> <p>Student conferences</p> <p>Teacher created pretests &amp; post-tests</p> <p>Observations &amp; checklists</p> <p>Quick write &amp; Response card</p>	<p><u>Lesson 32:</u> “Area and Perimeter of Shapes”</p> <p><b>Interactive Practice</b> “Area and Perimeter of Shapes”</p> <p><u>Fluency &amp; Skills Practice 32.1</u></p> <p><u>Fluency &amp; Skills Practice 32.2</u></p> <p><u>Fluency &amp; Skills Practice 32.3</u></p> <p><u>Teacher Toolbox</u></p> <ul style="list-style-type: none"> <li>Center 3.45 “Use Perimeter and Area Vocabulary”</li> <li>Center 3.46 “Work with Perimeter”</li> </ul>	<p>Modifications per students’ IEP</p> <p>Additional manipulatives</p> <p>Read text</p> <p>Clarify words</p> <p>Less problems</p> <p>Provide additional scaffolding</p> <p>Extended time</p> <p>Using prior knowledge</p> <p><b>Enrichment:</b> <u>Designing an Animal Pen</u></p>
<p><b>3.MD.D.8 – WALT</b> solve real world and mathematical problems involving perimeters of polygons, including finding unknown side lengths when given the perimeter</p>				

**Benchmark Assessments**

<b>Benchmark Assessment 1</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
<i>Teacher Created Assessment</i>	
<b>Benchmark Assessment 2</b>	<b><u>Modifications per students' IEP, in addition to:</u></b>
<i>I-Ready Diagnostics</i>	<ul style="list-style-type: none"> <li>● <i>Additional manipulatives</i></li> <li>● <i>Read text</i></li> <li>● <i>Clarify words</i></li> <li>● <i>Less problems</i></li> <li>● <i>Provide additional scaffolding</i></li> <li>● <i>Extended time</i></li> <li>● <i>Text to Speech</i></li> </ul>
<b>Summative Assessment</b>	
Collaboratively Designed Assessment	
Standards Mastery (I-Ready)	
National Assessments (iReady)	
PARCC Assessments (iReady)	
SBAC Assessment (iReady)	

**Interdisciplinary Connections**

<b>Interdisciplinary Connections</b>
<ul style="list-style-type: none"> <li>● <b>SL.3.1.</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on <i>grade 3 topics and texts</i>, building on others' ideas and expressing their own clearly.</li> <li>● <b>SL.3.3.</b> Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</li> <li>● <b>W.3.2.</b> Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <b>A.</b> Introduce a topic and group related information together; include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.</li> <li>● <b>RI.3.7.</b> Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</li> </ul>

---

## Unit Title: Mathematics – Spatial Reasoning and Fluency with Operations – Unit 4 – Module C

---

Grade level: Grade 3

Timeframe: 5 instructional days, 1 assessment day [6 days total]

---

### Rationale

*Grade 3 – Spatial Reasoning and Fluency with Operations – Unit 4*

This final unit centers on problem solving with geometry and measurement. Learners measure and estimate liquid volumes and masses. They solve one-step word problems involving masses or volumes using the four operations. Building upon previous geometry content from earlier grades, they categorize shapes based on shared attributes. Learners solve real world and mathematical problems involving perimeters of polygons. Learners represent data with scaled graphs, and solve one- and two-step word problems using information presented in scaled graphs. To conclude the year, learners revisit addition and subtraction within 1000, and multiplication and division within 100 to demonstrate accurate and efficient use of strategies (fluency).

---

### Essential Questions

How can you represent and interpret data?

How can you use a key to interpret data on a picture graph?

How can you determine a scale on a bar graph?

---

### Standards

#### Standards (Taught and Assessed):

- 3.MD.B.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets*

Key: ■ Major Cluster    □ Supporting Cluster    © Additional Cluster

#### Highlighted Career Ready Practices and 21<sup>st</sup> Century Themes/Skills

- [2.1.4.A.1](#) Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
<p><b>3.MD.B.3 – WALT</b> draw a scaled picture graph to represent a data set with several categories</p>	<p><b>Explaining the meaning of a “key” when graphing.</b> <b>Present the following question:</b> A picture graph that uses hands to show the # of students has this key: ☞ =4 students. What does it mean if a category in the graph has 3 hands beside it? Explain. <i>(It means there are 12 students in that category because <math>3 \times 4 = 12</math>.)</i></p> <p><b>Model ways to count pictures on a scaled graph by skip counting, adding or multiplying.</b></p>	<p>Exit ticket</p> <p>Non verbal check ins- Example: Thumbs up-thumbs down. Self Reflections Student conferences Teacher created pretests &amp; post-tests Observations &amp; checklists</p>	<p><b>Lesson 19:</b> <b>“Scaled Graphs”</b></p> <p><b>Interactive Tutorials:</b></p> <ul style="list-style-type: none"> <li>• Draw Scaled Picture Graphs</li> <li>• Draw Scaled Bar Graphs</li> <li>• Solve Problems Using Scaled Picture Graphs</li> <li>• Solve Problems Using Scaled Bar Graphs</li> </ul> <p><b>Interactive Practice:</b> <b>“Scaled Graphs”</b></p> <p><u>Fluency &amp; Skills Practice 19.1</u></p>	<p>Modifications per students’ IEP</p> <p>Additional manipulatives Read text Clarify words Less problems Provide additional scaffolding Extended time Using prior knowledge <b>Enrichment:</b></p>
<p><b>3.MD.B.3 – WALT</b> draw a scaled bar graph to represent a data set with several categories</p>				

## Benchmark Assessments

<b>Benchmark Assessment 1</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>
<i>Teacher Created Assessment</i>	
<b>Benchmark Assessment 2</b>	<b><u>Modifications per students' IEP in addition to:</u></b>
<i>I-Ready Diagnostics</i>	<ul style="list-style-type: none"> <li>● <i>Additional manipulatives</i></li> <li>● <i>Read text</i></li> <li>● <i>Clarify words</i></li> <li>● <i>Less problems</i></li> <li>● <i>Provide additional scaffolding</i></li> <li>● <i>Extended time</i></li> <li>● <i>Text to Speech</i></li> </ul>
<b>Summative Assessment</b>	
Collaboratively Designed Assessment	
Standards Mastery (I-Ready)	
National Assessments (iReady)	
PARCC Assessments (iReady)	
SBAC Assessment (iReady)	

## Interdisciplinary Connections

<b>Interdisciplinary Connections</b>
<ul style="list-style-type: none"> <li>● <b>SL.3.1.</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on <i>grade 3 topics and texts</i>, building on others' ideas and expressing their own clearly.</li> <li>● <b>SL.3.3.</b> Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</li> <li>● <b>W.3.2.</b> Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <b>A.</b> Introduce a topic and group related information together; include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.</li> <li>● <b>RI.3.7.</b> Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</li> </ul>

# Unit Title: Mathematics – Spatial Reasoning and Fluency with Operations – Unit 4 – Module D

Grade level: Grade 3

Timeframe: 9 instructional days, 2 assessment days [11 days total]

## Rationale

Grade 3 – Spatial Reasoning and Fluency with Operations – Unit 4

*This final unit centers on problem solving with geometry and measurement. Learners measure and estimate liquid volumes and masses. They solve one-step word problems involving masses or volumes using the four operations. Building upon previous geometry content from earlier grades, they categorize shapes based on shared attributes. Learners solve real world and mathematical problems involving perimeters of polygons. Learners represent data with scaled graphs, and solve one- and two-step word problems using information presented in scaled graphs. To conclude the year, learners revisit addition and subtraction within 1000, and multiplication and division within 100 to demonstrate accurate and efficient use of strategies (fluency).*

## Guiding Questions

*How do you solve word problems that involve multiple steps?*

*What strategies can you use to determine the proper order to solve word problems?*

*How can you use rounding and estimation to determine if an answer is reasonable?*

## Standards

### Standards (Taught and Assessed):

- **3.OA.D.8** Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- ◎ **3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.
- ◎ **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
- **3.OA.C.7** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Key: ■ Major Cluster    □ Supporting Cluster    ◎ Additional Cluster

## Highlighted Career Ready Practices and 21<sup>st</sup> Century Themes/Skills

- 9.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.

Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
<p><b>3.OA.D.8 – WALT</b> solve two-step word problems using the four operations</p>	<ul style="list-style-type: none"> <li>• <b>Ask questions to ensure that students understands what the problem is about, such as:</b> “What do each of the numbers in the problem stand for?”</li> <li>• <b>Guide students to draw a model</b> to visualize and construct meaning from the word problem.                             <ul style="list-style-type: none"> <li>-Have students describe their model, explaining what each part in the model stands for and what is still unknown in the model.</li> <li>-Help students label the known and unknown quantities.</li> </ul> </li> <li>• <b>Present the student with a two-step problem:</b> Linda is saving money to buy a pair of ice skates that costs \$279. For the past 7 weeks, she has saved \$8 each week. How much money, <i>d</i>, does Linda still need to save?</li> </ul>	<p>Exit ticket</p> <p>Non verbal check ins- Example: Thumbs up-thumbs down. Self Reflections</p> <p>Student conferences</p> <p>Teacher created pretests &amp; post-tests</p> <p>Observations &amp; checklists</p> <p>Quick write &amp; Response card</p> <p><i>Lesson Paper Assessments (Ready Math)</i></p>	<p><b>Lesson 18:</b></p> <p>“Solve Two Step Word Problems Using the Four Operations”</p> <p><b>iReady Interactive Tutorial:</b></p> <p>“Solve Two Step Word Problems”</p> <p><b>Teacher Toolbox</b></p> <p><b>Center Activity 3.15</b></p> <p>“Solve 2 Step Word Problems”</p> <p><b>Center Activity 3.16</b></p> <p>“Check Reasonableness”</p> <p><b>Fluency &amp; Skills Practice 18.1</b></p> <p><b>Fluency &amp; Skills Practice 18.2</b></p>	<p>Modifications per students’ IEP</p> <p>Additional manipulatives</p> <p>Read text</p> <p>Clarify words</p> <p>Less problems</p> <p>Provide additional scaffolding</p> <p>Extended time</p> <p>Using prior knowledge</p>
<p><b>3.OA.D.8 – WALT</b> represent two-step word problems using equations with a letter standing for the unknown quantity</p>				<p>See samples below:</p> <p><b>At Risk:</b> Individualized as needed.</p> <p><b>IEP/504:</b> Modifications/Accommodations as stated in IEP.</p> <p><b>ELL:</b> Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p><b>G&amp;T:</b> Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p><b>Enrichment Lesson 18:</b></p>

SLO – WALT We are learning to/that	Student Strategies	Formative Assessment	Activities and Resources	Modifications
<p><b>3.NBT.A.2 – WALT</b> add within 1000 with accuracy and efficiency by using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction</p>	<p>Compare numbers using place value</p> <p>Determine whether a number rounds up or down</p> <p>Use a number line to round a whole number to the nearest 10 and 100</p> <p>Round 2- and 3-digit numbers to the nearest ten or hundred.</p> <p>Recall using place value to add within 1,000.</p> <p>Recall using properties of operations to add within 1,000.</p> <p>Recall using place value to subtract within 1,000</p> <p>Recall using properties of operations to subtract within 1,000</p>	<p>Teacher created pretests &amp; post-tests</p> <p>Observations &amp; checklists</p> <p>Quick write &amp; Response card</p> <p><i>Lesson Paper Assessments (Ready Math)</i></p> <p><i>Standards Mastery Check Form B (iReady)</i></p> <p><i>Comprehension Check Form B (iReady)</i></p>	<p><b>Lessons 2 &amp; 3 REVIEW: “Add and Subtract 3-digit Numbers”</b></p> <p><b>Interactive Tutorials:</b></p> <ul style="list-style-type: none"> <li>• Add 3-Digit Numbers</li> <li>• Subtract 3-Digit Numbers</li> </ul> <p><b>Interactive Practice:</b></p> <p><i>Lesson 2: Add 3-Digit Numbers</i></p> <p><i>Lesson 3: Subtract 3-Digit Numbers</i></p> <p><i>Fluency &amp; Skills Practice 2.1</i></p> <p><i>Fluency &amp; Skills Practice 2.2</i></p> <p><i>Fluency &amp; Skills Practice 3.1</i></p> <p><i>Fluency &amp; Skills Practice 3.2</i></p> <p><i>Fluency &amp; Skills Practice 3.3</i></p> <p><b>Teacher Toolbox</b></p> <ul style="list-style-type: none"> <li>• <b>Center 3.21</b> “Model Addition”</li> <li>• <b>Center 3.22</b> “Add within 1000”</li> <li>• <b>Center 3.56</b> “Model Subtraction”</li> <li>• <b>Center 3.57</b> “Subtract within 1000”</li> </ul>	<p>Provide additional scaffolding</p> <p>Extended time</p> <p>Using prior knowledge</p> <p><b>Enrichment:</b></p> <p><u>Lesson 1: Mystery Number</u></p> <p><u>Lesson 2: Addition Grids</u></p> <p><u>Lesson 3: Planning a Trip</u></p>
<p><b>3.NBT.A.2 – WALT</b> subtract within 1000 with accuracy and efficiency by using strategies and algorithms based on place value, properties of operations, and/or</p>				



<p><b>SLO – WALT</b></p> <p><b>We are learning to/that</b></p>	<p><b>Student Strategies</b></p>	<p><b>Formative Assessment</b></p>	<p><b>Activities and Resources</b></p>	<p><b>Modifications</b></p> <p>ELL: Model and provide example; Establish a non-verbal cue to redirect students when not on task. Students may use a bilingual dictionary.</p> <p>G&amp;T: Provide enrichment activities to expand upon the curriculum. Use higher level questioning techniques in class and on assessments.</p> <p>At Risk: Individualized as needed.</p> <p>IEP/504: Modifications/Accommodations as stated in IEP.</p> <p>See samples below:</p>
<p><b>3.OA.C.7 – WALT</b> know from memory all products of two one-digit numbers</p>	<p>Demonstrate proficiency in multiplying one and two-digit numbers within 100</p>	<p><i>Lesson Paper Assessments (Ready Math)</i></p> <p><i>Standards Mastery Check Form B (iReady)</i></p> <p><i>Comprehension Check Form B (iReady)</i></p>	<ul style="list-style-type: none"> <li>● <b>Center 3.13</b> “Toss and Multiply”</li> <li>● <b>Center 3.52</b> “Multiplication Race 2”</li> <li>● <b>Center 3.7</b> “Place Missing Numbers”</li> <li>● <b>Center 3.14</b> “Complete a Fact Family”</li> </ul> <p><b>(SEE ADDITIONAL RESOURCES BELOW)</b></p>	<p><u>Lesson 5: Shopping Spree</u></p> <p><u>Lesson 6: How Many Creatures?</u></p> <p><u>Lesson 7: How Many Creatures?</u></p> <p><u>Lesson 12: Display of Cans</u></p>

Activities and Resources	Ready Math Resources
<p>Talk about repeated addition</p> <p>Use manipulatives or counters to represent equal groups</p> <p>Use manipulatives or counters to represent arrays</p> <p>Use a number line to model multiplication/repeated addition.</p> <p>Write multiplication equations using models</p> <p>Review text strategies to determine key components of the problem (CUBES)</p> <ul style="list-style-type: none"> <li>● Circle the important numbers</li> <li>● Underline the question</li> <li>● Box the words that are keywords</li> <li>● Eliminate extra information</li> <li>● Solve by showing work.</li> </ul> <p>Use skip counting to model multiplication and repeated addition</p> <p>Use equal groups, arrays, repeated addition or multiplication to solve the unknown factor in word problems</p> <p>Use teacher modeling. Use drawings and physical models to show equal groups.</p> <p>Hands on activities and practice</p> <p><b><u>Instructional Technology Resources (Where Applicable):</u></b></p> <p><u>Khan Academy</u></p> <p><u>i-Ready</u></p> <p><u>Learn Zillion</u></p> <p><u>Nearpod Lessons</u></p> <p><u>IXL</u></p> <p><u>Brainpop</u></p> <p><u>Reflex Math</u></p>	<p><b>Lesson 5: Multiply with 0, 1, 2, 5, and 10'</b></p> <p><b>iReady Interactive Tutorial "Understand Multiplication Part 1"</b></p> <p><b>Lesson 5 - iReady Interactive Practice</b></p> <p><u>Fluency and Skills Practice 1</u></p> <p><u>Fluency and Skills Practice 2</u></p> <hr/> <p><b>Lesson 6: Multiply with 3, 4, and 6</b></p> <p><b>iReady Interactive Tutorial "Understand Multiplication Part 2"</b></p> <p><b>Interactive Practice: Lesson 6</b></p> <p><u>Fluency and Skills Practice 1</u></p> <p><u>Fluency and Skills Practice 2</u></p> <p><u>Fluency and Skills Practice 3</u></p> <hr/> <p><b>Lesson 7: Multiply with 7, 8, and 9</b></p> <p><b>iReady Interactive Tutorial "Break Apart a Number to Multiply"</b></p> <p><b>Interactive Practice: Lesson 7</b></p> <p><u>Fluency and Skills Practice 1</u></p> <p><u>Fluency and Skills Practice 2</u></p> <p><u>Fluency and Skills Practice 3</u></p> <hr/> <p><b>Lesson 12: Multiplication and Division Facts</b></p> <p><b>iReady Interactive Tutorial "Understand Division Part 2"</b></p> <p><b>Lesson 12 - iReady Interactive Practice</b></p> <p><u>Fluency and Skills Practice 1</u></p> <p><u>Fluency and Skills Practice 2</u></p> <p><b>Center Activity: 3.14 "Complete a Fact Family"</b></p>