

**WEYMOUTH TOWNSHIP MATHEMATICS  
CURRICULUM**

Content Area: Mathematics

Course Title: Middle School

Grade Level: 3

**Unit 1 Plan:  
Operations and Algebraic Thinking**

**September-October  
Ongoing**

**Unit 2 Plan:  
Number and Operations in Base Ten**

**November/December  
Ongoing**

**Unit 3 Plan:  
Number and Operations-Fractions**

**January/February  
Ongoing**

**Unit 4 Plan:  
Measurement and Data**

**March/April  
Ongoing**

**Unit 5 Plan:  
Geometry**

**May/June  
Ongoing**

**Date Created:**

August, 2022

**Revised:**

**Board Approved on:**

August 2023

## Gr –3th Grade Unit 1-Operations and Algebraic Thinking

### Unit Overview

*Content topic and skill focus:* **Operations and Algebraic Thinking**

*Standard, Strand, and Content statements (CPIs listed below)*

Learning in this unit will focus on: **Operations and Algebraic Thinking**

**Standard MA.3.OA.A.1, MA.3.OA.A.2, MA.3.OA.A.3, MA.3.OA.A.4, MA.3.OA.B.5, MA.3.OA.B.6, MA.3.OA.C.7, MA.3.OA.D.8, MA.3.OA.D.9**

**Content Statement:** Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.

**Instructional Focus: Operations and Algebraic Thinking**

**Lesson #:** Sections 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.2, 5.3, 5.4, 8.11, 9.3, 9.4, 9.5,

#### Essential Questions:

- How to use equal groups to multiply.
- How to use a number line to multiply.
- How to use an array to multiply.
- How to multiply factors in any order.
- How to use division to find the size of equal groups.
- How to use division to find the number of equal groups.
- How to use a number line to divide.
- How to multiply by 2.
- How to multiply by 5.
- How to multiply by 10.
- How to use properties to multiply by 1 or 0.
- How to use the Distributive Property to multiply.
- How to use the problem-solving plan to solve word problems.
- How to multiply by 3.
- How to multiply by 4.
- How to multiply by 6.
- How to multiply by 7.
- How to multiply by 8.
- How to multiply by 9.
- How to use a strategy to multiply two factors.
- How to use the Associative Property of Multiplication.
- How to use the problem-solving plan to solve word problems.
- How to use an array to divide.
- How to use fact families to relate multiplication and division.
- How to divide a number by 2, 5, or 10.
- How to divide a number by 3 or 4.
- How to divide a number by 6 or 7.
- How to divide a number by 8 or 9.
- How to divide with 0 or 1.
- How to use a strategy to divide.

- How to use the problem-solving plan to solve word problems.
- How to use the multiplication table to write related multiplication and division facts.
- How to complete a multiplication table.
- How to solve multiplication and division word problems.
- How to use the problem-solving plan to solve two-step addition and subtraction word problems.
- How to use properties to multiply by multiples of 10.
- How to use the problem-solving plan to solve two-step word problems involving different operations.

**Student Learning Objectives: STUDENTS WILL BE ABLE TO:**

- **MA.3.OA (Doman) Operations and Algebraic Thinking.**
- MA.3.OA.A Represent and solve problems involving multiplication and division.
- MA.3.OA.A.1 [*Standard*] - Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each.
  - 1.1 Use Equal Groups to Multiply, 1.2 Use Number Lines to Multiply, 1.3 Use arrays to Multiply, 1.4 Multiply in Any Order
- MA.3.OA.A.2 [*Standard*] - 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.
  - 1.5 Divide: Size of Equal Groups, 1.6 Divide: Number of Equal Groups, 4.1 Use Arrays to Divide, 4.2 Relate Multiplication and Division.
- MA.3.OA.A.3 [*Standard*] - 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.
  - 1.2 Use Number Lines to Multiply, 1.3 Use Arrays to Multiply, 1.4 Multiply in Any Order, 1.5 Divide: Size of Equal Groups, 1.6 Divide: Number of Equal Groups, 1.7 Use Number Lines to Divide, 2.1 Multiply by 2, 2.2 Multiply by 5, 2.3 Multiply by 10, 2.4 Multiply by 0 or 1, 2.5 Use the Distributive Property, 2.6 Problem Solving: Multiplication, 3.1 Multiply by 3, 3.2 Multiply by 4, 3.3 Multiply by 6, 3.4 Multiply by 7, 3.5 Multiply by 8, 3.6 Multiply by 9, 3.7 Practice Multiplication Strategies, 3.8 Multiply Three Factors, 3.9 More Problem Solving: Multiplication, 4.1 Use Arrays to Divide, 4.2 Relate Multiplication and Division, 4.3 Divide by 2,5, or 10, 4.4 Divide by 3 or 4, 4.5 Divide by 6 or 7, 4.6 Divide by 8 or 9, 4.7 Divide with 0 or 1, 4.8 Practice Division Strategies, 4.9 Problem-Solving: Division
- MA.3.OA.A.4 [*Standard*] - Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
  - 2.1 Multiply by 2, 2.2 Multiply by 5, 2.3 Multiply by 10, 2.4 Multiply by 0 or 1, 2.5 Use the Distributive Property, 2.6 Problem Solving: Multiplication, 3.1 Multiply by 3, 3.2 Multiply by 4, 3.3 Multiply by 6, 3.4 Multiply by 7, 3.5 Multiply by 8, 3.6 Multiply by 9, 3.7 Practice Multiplication Strategies, 3.8 Multiply Three Factors, 3.9 More Problem Solving: Multiplication 4.3 Divide by 2,5, or 10, 4.4 Divide by 3 or 4, 4.5 Divide by 6 or 7, 4.6 Divide by 8 or 9, 4.7 Divide with 0 or 1, 4.8 Practice Division Strategies, 4.9 Problem-Solving: Division, 5.2 Use the Multiplication Table, 5.3 Complete Multiplication Tables, 5.4 More Problem Solving
- MA.3.OA.B.5 [*Standard*] - Apply properties of operations as strategies to multiply and divide.
  - 1.4 Multiply in Any Order, 2.4 Multiply by 0 or 1, 2.5 Use the Distributive Property, 3.6 Multiply by 9, 3.7 Practice Multiplication Strategies, 3.8 Multiply Three Factors, 4.7 Divide with 0 or 1, 9.3 Use Properties to Multiply by Multiples of 10.
- MA.3.OA.B.6 [*Standard*] - Understand division as an unknown-factor problem.
  - 4.2 Relate Multiplication and Division, 4.3 Divide by 2,5, or 10, 4.4 Divide by 3 or 4, 4.5 Divide by 6 or 7, 4.6 Divide by 8 or 9, 4.7 Divide with 0 or 1, 4.8 Practice Division Strategies.
- MA.3.OA.C.7 [*Standard*] - 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.
- 2.1 Multiply by 2, 2.2 Multiply by 5, 2.3 Multiply by 10, 2.4 Multiply by 0 or 1, 2.5 Use the Distributive Property, 2.6 Problem Solving: Multiplication, 3.1 Multiply by 3, 3.2 Multiply by 4, 3.3 Multiply by 6, 3.4 Multiply by 7, 3.5 Multiply by 8, 3.6 Multiply by 9, 3.7 Practice Multiplication Strategies, 3.8 Multiply Three Factors, 3.9 More Problem Solving: Multiplication, 4.2 Relate Multiplication and Division, 4.3 Divide by 2, 5, or 10, 4.4 Divide by 3 or 4, 4.5 Divide by 6 or 7, 4.6 Divide by 8 or 9, 4.7 Divide with 0 or 1, 4.8 Practice Division Strategies, 4.9 Problem-Solving: Division, 5.1 Identify Patterns in the Multiplication Table, 5.2 Use the Multiplication Table, 5.3 Complete Multiplication Tables, 5.4 More Problem Solving
  - MA.3.OA.D.8 [*Standard*] - 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.
    - 5.4 More Problem Solving, 8.11 Problem Solving: Addition and Subtraction, 9.5 Problem Solving: All Operations
  - MA.3.OA.D.9 [*Standard*] - Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.
    - 2.1 Multiply by 2, 2.2 Multiply by 5, 2.3 Multiply by 10, 2.4 Multiply by 0 or 1, 5.1 Identify Patterns in the Multiplication Table, 5.2 Use the Multiplication Table, 5.3 Complete Multiplication Tables, 5.4 More Problem Solving.

**Suggested Activities**

- Introduction videos
- IXL
- Graphic organizers
- Scavenger hunts
- Flash cards
- My Dear Aunt Sally Game
- Online textbook lesson
- Online questions correlated to textbook
- Stem videos

**Instructional Materials/Resources**

- Big Ideas Math Textbook copyright 2022
- Big Ideas record and practice journal
- Big Ideas resource by chapter workbook
- Big Ideas skills review handbook
- Teacher made materials
- Instructional videos
- Quizzes
- Online chapter review
- Online practice test
- Online test
- Cumulative assessments
- Benchmark tests
- Performance assessment

**Pacing: approx # of class periods:**

**NJ Student Learning Standards for Math: MA.3.OA.A.1, MA.3.OA.A.2, MA.3.OA.A.3, MA.3.OA.A.4, MA.3.OA.B.5, MA.3.OA.B.6, MA.3.OA.C.7, MA.3.OA.D.8, MA.3.OA.D.9**

**Interdisciplinary Connections**

**Language Arts Literacy** LA.RL.3.1, LA.RI.3.4, LA.RF.3.4.C, LA.W.3.1.A, LA.W.3.1.B, LA.W.3.2.A, LA.W.3.2.B, LA.W.3.2.C, LA.W.3.2.D, LA.W.3.2.F, LA.W.3.4, LA.L.3.2.B, LA.3.3.A, LA.L.3.4.C, LA.L.3.6

**Career Readiness-Personal Financial Literacy** PFL.9.1.4.D.1, PFL.9.1.4.D.2, PFL.9.1.4.D.3, PFL.9.1.4.E.1, PFL.9.1.4.E.2

**Career Awareness, Exploration, and Training** WRK.9.2.5.CAP.2

**Life Literacy and Key Skills** TECH.9.4.5.CT.1, TECH.9.4.5.TL.1, TECH.9.4.5.TL.2, TECH.9.4.5.CT.3

### Integration of Technology

Math instruction engages students in a variety of learning experiences using technology. The following standards will be addressed through the activities in this unit:

**Computer Science and Design Thinking** CS.3-5.8.1.5.DA.1, CS.3-5.8.1.5.DA.5, CS.3-5.8.2.5.ED.2, CS.3-5.8.2.5.ED.3

### 21st Century Life and Career Skills

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

### Evidence of Learning

Summative and Benchmark Assessments	Formative Assessments and Alternative Activities
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Unit Pretest Unit Project Unit Test Performance Assessment Beginning of the year benchmark Trimester benchmark End of year benchmark	Hand Signals Student Conference Fun and Games Class work/participation Critical Thinking Skill activity Writing about Math Textbook Interactive Activities ixl record and practice journal	Lesson Review questions Reading Check questions Share/Pair Skills Practice Study Guide Teacher Observation Unit Review Vocabulary Review Graphic Organizers Homework and Practice pages Writing Connection Content Videos Online Questions
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### Instructional Delivery

Student learning experiences will include a combination of instructional strategies appropriate to the content and skills being taught. Lessons may include (but are not limited to) the following:

- Direct instruction/demonstration
- Interactive/Guided math strategies
- Cooperative learning activities
- Digital activities including videos, games, assessments
- Research projects and Presentation projects
- Small Group Instruction
- Share Examples
- Visual Aids
- Learning Centers
- Modeled, Shared, and Independent Activities
- Active Learning

### Differentiated Instruction, Accommodations & Adaptations

Alternative Assessments  
Goal Setting with Students  
Homework Options  
Frequent Breaks  
Tests Read Aloud  
Color Coded Assignments/books/notebooks/folders

Cooperative Learning  
Picture Vocabulary Wall  
Anchor Charts of Concepts  
Change in Content, Process, Product  
Flexible Grouping  
Modified Class Assignments

<b>Special Education/IEP</b>	<b>504</b>
Assessments/assignments read orally w/ extended time Concept chunking Graphic organizer concept maps	Extended time for assignments Frequent breaks Sign agenda book daily

<p>Picture study guides Small group instruction Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts</p>	<p>Study guides Graphic organizers</p>
<p><b>ELL</b></p>	<p><b>Gifted &amp; Talented</b></p>
<p>Picture study guides Video presentation/Audio presentation Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts Spanish pupil editions including assessments</p>	<p>Independent extension research projects Jigsaw cooperative learning activities Student choice Advanced Activities Class grouping</p>
<p><b><u>At Risk/I&amp;RS</u></b></p>	<p><b><u>At Risk/I&amp;RS</u></b></p>
<p><b>Presentation accommodations</b> (changes the way information is presented)</p> <ul style="list-style-type: none"> <li>● Listen to audio recordings instead of reading text</li> <li>● Learn content from videos, and digital media instead of reading print versions</li> <li>● Work with fewer items per page or line</li> <li>● Have a “designated reader”—someone who reads test questions aloud to</li> <li>● Hear instructions spoken aloud</li> <li>● Get class notes from teacher</li> <li>● See an outline of a lesson</li> <li>● Use visual presentations of verbal material, such as word webs</li> <li>● Get a written list of instructions</li> </ul> <p><b>Response accommodations</b> (changes the way kids complete assignments or tests)</p> <ul style="list-style-type: none"> <li>● Give responses in a form (spoken or written) that’s easier for them</li> <li>● Dictate answers to a scribe who writes or types</li> <li>● Use a spelling dictionary or digital spell-checker</li> <li>● Use a laptop to type notes or give answers in class</li> <li>● Use a calculator or table of “math facts”</li> </ul> <p><b>Setting accommodations</b></p>	<p><b>Common Modifications</b></p> <p><b>Assignment modifications</b></p> <ul style="list-style-type: none"> <li>● Complete fewer or different homework problems than peers</li> <li>● Write shorter answers to questions</li> <li>● Answer fewer or different test questions</li> <li>● Create alternate projects or assignments</li> </ul> <p><b>Curriculum modifications</b></p> <ul style="list-style-type: none"> <li>● Learn different material (such as continuing to work on multiplication while classmates move on to fractions)</li> <li>● Get graded or assessed using a different standard than other students</li> <li>● Be excused from particular projects</li> </ul> <p><b>Scheduling accommodations</b></p> <ul style="list-style-type: none"> <li>● Take more time to complete a project</li> <li>● Take a test in several sessions or over several days</li> <li>● Take sections of a test in a different order</li> <li>● Take a test at a specific time of day</li> </ul> <p><b>Organization skills accommodations</b></p> <ul style="list-style-type: none"> <li>● Mark notes with a highlighter</li> </ul>

<ul style="list-style-type: none"> <li>• Work or take a test in a different setting, such as a quiet room with few distractions</li> <li>• Sit where they learn best (for example, near the teacher)</li> <li>• Adjust lighting in the classroom</li> <li>• Take a test in a small group setting</li> </ul> <p><b>Timing accommodations</b></p> <ul style="list-style-type: none"> <li>• Take more time to complete a task or a test</li> <li>• Have extra time to process spoken information and directions</li> <li>• Take frequent breaks, such as after completing a worksheet</li> </ul>	<ul style="list-style-type: none"> <li>• Use a planner or organizer to help coordinate assignments</li> <li>• Receive organizational skills instruction</li> </ul>
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**Internet Resources**

Big Idea Math Series <https://www.bigideasmath.com/>  
ixl math <https://www.ixl.com/>  
prodigy <https://www.prodigygame.com/>  
National Library of Virtual Manipulatives <http://nlvm.usu.edu/en/nav/vlibrary.html>  
Internet4classrooms [https://www.internet4classrooms.com/skills\\_6th.htm](https://www.internet4classrooms.com/skills_6th.htm)  
Future Smart Financial Literacy <https://platform.everfi.net/teacher/curriculum/25/demo>  
Junior Achievement <http://learn.ja.org>

**Gr –3th Grade Unit 2-Number and Operations in Base Ten**

**Unit Overview**

*Content topic and skill focus: Number and Operations in Base Ten*

*Standard, Strand, and Content statements (CPIs listed below)*

Learning in this unit will focus on: **Number and Operations in Base Ten**

**Standard MA.3.NBT.A.1, MA.3.NBT.A.2, MA.3.NBT.A.3**

**Content Statement:** Students use their knowledge of addition and subtraction to solve multiple digit problems and develop fluency in both operations. Students will develop their mental math capabilities Students round numbers for estimation in addition and subtraction. Students develop use of mathematical properties for operations and their inverse operations.

**Instructional Focus: Number and Operations in Base Ten**

**Lesson #:** Sections 7.2, 7.3, 7.4, 7.5, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11,12.4, 9.1, 9.2, 9.3

<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• How to use a number line to rebound numbers to the nearest ten or nearest hundred.</li> <li>• How to use place value to round numbers to the nearest ten or nearest hundred.</li> <li>• How to use rounding or compatible numbers to estimate sums.</li> <li>• How to use rounding or compatible numbers to estimate differences.</li> </ul>
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- How to identify and use addition properties.
- How to use a number line to find a sum.
- How to use mental math to find a sum.
- How to use partial sums to find a sum.
- How to add three-digit numbers.
- How to add up to four numbers.
- How to use a number line to find a difference.
- How to use mental math to find a difference.
- How to subtract three-digit numbers.
- How to use inverse operations to check answers.
- How to use the problem-solving plan to solve two-step addition and subtraction word problems.

**Student Learning Objectives: STUDENTS WILL BE ABLE TO:**

- MA.3.NBT [*Domain*] - Number and Operations in Base Ten
- MA.3.NBT.A.1 [*Standard*] - Use place value understanding to round whole numbers to the nearest 10 or 100
  - 7.2 Round Numbers Using a Number Line, 7.3 Round Numbers Using Place Value, 7.4 Estimate Sums, 7.5 Estimate Differences
- MA.3.NBT.A.2 [*Standard*] - 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.
  - 7.4 Estimate Sums, 7.5 Estimate Differences, 8.1 Identify Addition Properties, 8.2 Use Number Lines to Add, 8.3 Use Mental Math to Add, 8.4 Use Partial Sums to Add, 8.5 Add Three-Digit Numbers, 8.6 Add Three or More Numbers, 8.7 Use Number Lines to Subtract, 8.8 Use Mental Math to Subtract, 8.9 Subtract Three-Digit Numbers, 8.10 Relate Addition and Subtraction, 8.11 Problem Solving: Addition and Subtraction, 12.4 Problem Solving: Time Interval Problems
- MA.3.NBT.A.3 [*Standard*] - Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.
  - 9.1 Use Number Lines to Multiply by Multiples of 10, 9.2 Use Place Value to Multiply by Multiples of 10, 9.3 Use Properties to Multiply by Multiples of 10.

**Suggested Activities**

- Introduction videos
- IXL
- Graphic organizers
- Scavenger hunts
- Flash cards
- My Dear Aunt Sally Game
- Online textbook lesson
- Online questions correlated to textbook
- Stem videos

**Instructional Materials/Resources**

- Big Ideas Math Textbook copyright 2022
- Big Ideas record and practice journal
- Big Ideas resource by chapter workbook
- Big Ideas skills review handbook
- Teacher made materials
- Instructional videos
- Quizzes
- Online chapter review
- Online practice test
- Online test
- Cumulative assessments
- Benchmark tests
- Performance assessment

**Pacing: approx # of class periods:**

### Interdisciplinary Connections

**Language Arts Literacy** LA.RL.3.1, LA.RI.3.4, LA.RF.3.4.C, LA.W.3.1.A, LA.W.3.1.B, LA.W.3.2.A, LA.W.3.2.B, LA.W.3.2.C, LA.W.3.2.D, LA.W.3.2.F, LA.W.3.4, LA.L.3.2.B, LA.3.3.A, LA.L.3.4.C, LA.L.3.6

**Career Readiness-Personal Financial Literacy** PFL.9.1.4.D.1, PFL.9.1.4.D.2, PFL.9.1.4.D.3, PFL.9.1.4.E.1, PFL.9.1.4.E.2

**Career Awareness, Exploration, and Training** WRK.9.2.5.CAP.2

**Life Literacy and Key Skills** TECH.9.4.5.CT.1, TECH.9.4.5.TL.1, TECH. 9.4.5.TL.2, TECH.9.4.5.CT.3

### Integration of Technology

Math instruction engages students in a variety of learning experiences using technology. The following standards will be addressed through the activities in this unit:

**Computer Science and Design Thinking** CS.3-5.8.1.5.DA.1, CS.3-5.8.1.5.DA.5, CS.3-5.8.2.5.ED.2, CS.3-5.8.2.5.ED.3

### 21st Century Life and Career Skills

X	CRP1. Act as a responsible and contributing citizen and employee.
X	CRP2. Apply appropriate academic and technical skills.
X	CRP3. Attend to personal health and financial well-being.
X	CRP4. Communicate clearly and effectively and with reason.
	CRP5. Consider the environmental, social and economic impacts of decisions.
X	CRP6. Demonstrate creativity and innovation.
	CRP7. Employ valid and reliable research strategies.
X	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.
X	CRP11. Use technology to enhance productivity.
	CRP12. Work productively in teams while using cultural global competence.

### Evidence of Learning

Summative and Benchmark Assessments	Formative Assessments and Alternative Activities	
Unit Pretest	Hand Signals	Lesson Review questions
Unit Project	Student Conference	Reading Check questions
Unit Test	Fun and Games	Share/Pair
Performance Assessment	Class work/participation	Skills Practice
Beginning of the year benchmark	Critical Thinking Skill activity	Study Guide
Trimester benchmark	Writing about Math	Teacher Observation
End of year benchmark	Textbook Interactive Activities	Unit Review
	ixl	Vocabulary Review

	record and practice journal	Graphic Organizers Homework and Practice pages Writing Connection Content Videos Online Questions
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### Instructional Delivery

Student learning experiences will include a combination of instructional strategies appropriate to the content and skills being taught. Lessons may include (but are not limited to) the following:

- Direct instruction/demonstration
- Interactive/Guided math strategies
- Cooperative learning activities
- Digital activities including videos, games, assessments
- Research projects and Presentation projects
- Small Group Instruction
- Share Examples
- Visual Aids
- Learning Centers
- Modeled, Shared, and Independent Activities
- Active Learning

### Differentiated Instruction, Accommodations & Adaptations

Alternative Assessments  
Goal Setting with Students  
Homework Options  
Frequent Breaks  
Tests Read Aloud  
Color Coded Assignments/books/notebooks/folders

Cooperative Learning  
Picture Vocabulary Wall  
Anchor Charts of Concepts  
Change in Content, Process, Product  
Flexible Grouping  
Modified Class Assignments

<b>Special Education/IEP</b>	<b>504</b>
Assessments/assignments read orally w/ extended time Concept chunking Graphic organizer concept maps Picture study guides Small group instruction Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts	Extended time for assignments Frequent breaks Sign agenda book daily Study guides Graphic organizers
<b>ELL</b>	<b>Gifted &amp; Talented</b>
Picture study guides Video presentation/Audio presentation	Independent extension research projects Jigsaw cooperative learning activities

<p>Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts Spanish pupil editions including assessments</p>	<p>Student choice Advanced Activities Class grouping</p>
<p><b><u>At Risk/I&amp;RS</u></b></p>	<p><b><u>At Risk/I&amp;RS</u></b></p>
<p><b>Presentation accommodations</b> (changes the way information is presented)</p> <ul style="list-style-type: none"> <li>● Listen to audio recordings instead of reading text</li> <li>● Learn content from videos, and digital media instead of reading print versions</li> <li>● Work with fewer items per page or line</li> <li>● Have a “designated reader”—someone who reads test questions aloud to</li> <li>● Hear instructions spoken aloud</li> <li>● Get class notes from teacher</li> <li>● See an outline of a lesson</li> <li>● Use visual presentations of verbal material, such as word webs</li> <li>● Get a written list of instructions</li> </ul> <p><b>Response accommodations</b> (changes the way kids complete assignments or tests)</p> <ul style="list-style-type: none"> <li>● Give responses in a form (spoken or written) that’s easier for them</li> <li>● Dictate answers to a scribe who writes or types</li> <li>● Use a spelling dictionary or digital spell-checker</li> <li>● Use a laptop to type notes or give answers in class</li> <li>● Use a calculator or table of “math facts”</li> </ul> <p><b>Setting accommodations</b></p> <ul style="list-style-type: none"> <li>● Work or take a test in a different setting, such as a quiet room with few distractions</li> <li>● Sit where they learn best (for example, near the teacher)</li> <li>● Adjust lighting in the classroom</li> <li>● Take a test in a small group setting</li> </ul> <p><b>Timing accommodations</b></p> <ul style="list-style-type: none"> <li>● Take more time to complete a task or a test</li> </ul>	<p><b>Common Modifications</b></p> <p><b>Assignment modifications</b></p> <ul style="list-style-type: none"> <li>● Complete fewer or different homework problems than peers</li> <li>● Write shorter answers to questions</li> <li>● Answer fewer or different test questions</li> <li>● Create alternate projects or assignments</li> </ul> <p><b>Curriculum modifications</b></p> <ul style="list-style-type: none"> <li>● Learn different material (such as continuing to work on multiplication while classmates move on to fractions)</li> <li>● Get graded or assessed using a different standard than other students</li> <li>● Be excused from particular projects</li> </ul> <p><b>Scheduling accommodations</b></p> <ul style="list-style-type: none"> <li>● Take more time to complete a project</li> <li>● Take a test in several sessions or over several days</li> <li>● Take sections of a test in a different order</li> <li>● Take a test at a specific time of day</li> </ul> <p><b>Organization skills accommodations</b></p> <ul style="list-style-type: none"> <li>● Mark notes with a highlighter</li> <li>● Use a planner or organizer to help coordinate assignments</li> <li>● Receive organizational skills instruction</li> </ul>

- Have extra time to process spoken information and directions
- Take frequent breaks, such as after completing a worksheet

### Internet Resources

Big Idea Math Series <https://www.bigideasmath.com/>

ixl math <https://www.ixl.com/>

prodigy <https://www.prodigygame.com/>

National Library of Virtual Manipulatives <http://nlvm.usu.edu/en/nav/vlibrary.html>

Internet4classrooms [https://www.internet4classrooms.com/skills\\_6th.htm](https://www.internet4classrooms.com/skills_6th.htm)

Future Smart Financial Literacy <https://platform.everfi.net/teacher/curriculum/25/demo>

Junior Achievement <http://learn.ja.org>

### Gr –3th Grade Unit 3-Number and Operations-Fractions

#### Unit Overview

*Content topic and skill focus: Number and Operations-Fractions*

*Standard, Strand, and Content statements (CPIs listed below)*

Learning in this unit will focus on: **Number and Operations-Fractions**

**Standard MA.3.NF.A.1, MA.3.NF.A.2a.- b, MA.3.NF.A.3a.-d.**

**Content Statement:** Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. For example,  $\frac{1}{2}$  of the paint in a small bucket could be less paint than  $\frac{1}{3}$  of the paint in a larger bucket, but  $\frac{1}{3}$  of a ribbon is longer than  $\frac{1}{5}$  of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.

**Instructional Focus: Number and Operations-Fractions**

**Lesson #:** Sections 10.1, 1.2, 10.3, 10.4, 10.5, 14.6. 14.7, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8

#### Essential Questions:

- How to identify equal parts of a whole and name them.
- How to identify and write a unit fraction.
- How to identify and write a fraction.
- How to plot fractions less than 1 on a number line.
- How to plot fractions greater than 1 on a number line.
- How to measure objects to the nearest half inch and make line plots.
- How to measure objects to the nearest quarter inch and make line plots.
- How to model and write equivalent fractions.
- How to use a number line to find equivalent fractions.
- How to relate fractions and whole numbers.
- How to compare fractions that have the same denominator.
- How to compare fractions that have the same numerator.

**Student Learning Objectives: STUDENTS WILL BE ABLE TO:**

- MA.3.NF (Doman) Number and Operations-Fractions
- MA.3.NF.A Develop understanding of fractions as numbers.
- MA.3.NF.A.1 [*Standard*] - 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  $1/b$ .
- MA.3.NF.A.2 [*Standard*] - Understand a fraction as a number on the number line; represent fractions on a number line diagram.
  - MA.3.NF.A.2a 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.
  - MA.3.NF.A.2b 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.
- MA.3.NF.A.3 [*Standard*] - Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
  - MA.3.NF.A.3a Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
  - MA.3.NF.A.3b Recognize and generate simple equivalent fractions (e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ ). Explain why the fractions are equivalent, e.g., by using a visual fraction model.
  - MA.3.NF.A.3c 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.
- MA.3.NF.A.3d 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  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.

**Suggested Activities**

- Introduction videos
- IXL
- Graphic organizers
- Scavenger hunts
- Flash cards
- My Dear Aunt Sally Game
- Online textbook lesson
- Online questions correlated to textbook
- Stem videos

**Instructional Materials/Resources**

- Big Ideas Math Textbook copyright 2022
- Big Ideas record and practice journal
- Big Ideas resource by chapter workbook
- Big Ideas skills review handbook
- Teacher made materials
- Instructional videos
- Quizzes
- Online chapter review
- Online practice test
- Online test
- Cumulative assessments
- Benchmark tests
- Performance assessment

**Pacing: approx # of class periods: 27**

**NJ Student Learning Standards for Math: MA.3.NF.A.1, MA.3.NF.A.2a.- b, MA.3.NF.A.3a.-d.**

**Interdisciplinary Connections**

**Language Arts Literacy** LA.RL.3.1, LA.RI.3.4, LA.RF.3.4.C, LA.W3.1.A, LA.W.3.1.B, LA.W.3.2.A, LA.W.3.2.B, LA.W.3.2.C, LA.W.3.2.D, LA.W.3.2.F, LA.W.3.4, LA.L.3.2.B, LA.3.3.A, LA.L.3.4.C, LA.L.3.6

**Career Readiness-Personal Financial Literacy** PFL.9.1.4.D.1, PFL.9.1.4.D.2, PFL.9.1.4.D.3, PFL.9.1.4.E.1, PFL.9.1.4.E.2

**Career Awareness, Exploration, and Training** WRK.9.2.5.CAP.2

**Life Literacy and Key Skills** TECH.9.4.5.CT.1, TECH.9.4.5.TL.1, TECH. 9.4.5.TL.2, TECH.9.4.5.CT.3

**Integration of Technology**

Math instruction engages students in a variety of learning experiences using technology. The following standards will be addressed through the activities in this unit:

**Computer Science and Design Thinking** CS.3-5.8.1.5.DA.1, CS.3-5.8.1.5.DA.5, CS.3-5.8.2.5.ED.2, CS.3-5.8.2.5.ED.3

**21st Century Life and Career Skills**

X	CRP1. Act as a responsible and contributing citizen and employee.
X	CRP2. Apply appropriate academic and technical skills.
X	CRP3. Attend to personal health and financial well-being.
X	CRP4. Communicate clearly and effectively and with reason.
	CRP5. Consider the environmental, social and economic impacts of decisions.
X	CRP6. Demonstrate creativity and innovation.
	CRP7. Employ valid and reliable research strategies.
X	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.
X	CRP11. Use technology to enhance productivity.
	CRP12. Work productively in teams while using cultural global competence.

**Evidence of Learning**

Summative and Benchmark Assessments	Formative Assessments and Alternative Activities
Unit Pretest Unit Project Unit Test Performance Assessment Beginning of the year benchmark Trimester benchmark	Hand Signals Student Conference Fun and Games Class work/participation Critical Thinking Skill activity Writing about Math Lesson Review questions Reading Check questions Share/Pair Skills Practice Study Guide Teacher Observation

End of year benchmark	Textbook Interactive Activities ixl record and practice journal	Unit Review Vocabulary Review Graphic Organizers Homework and Practice pages Writing Connection Content Videos Online Questions
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### Instructional Delivery

Student learning experiences will include a combination of instructional strategies appropriate to the content and skills being taught. Lessons may include (but are not limited to) the following:

- Direct instruction/demonstration
- Interactive/Guided math strategies
- Cooperative learning activities
- Digital activities including videos, games, assessments
- Research projects and Presentation projects
- Small Group Instruction
- Share Examples
- Visual Aids
- Learning Centers
- Modeled, Shared, and Independent Activities
- Active Learning

### Differentiated Instruction, Accommodations & Adaptations

Alternative Assessments  
Goal Setting with Students  
Homework Options  
Frequent Breaks  
Tests Read Aloud  
Color Coded Assignments/books/notebooks/folders

Cooperative Learning  
Picture Vocabulary Wall  
Anchor Charts of Concepts  
Change in Content, Process, Product  
Flexible Grouping  
Modified Class Assignments

<b>Special Education/IEP</b>	<b>504</b>
Assessments/assignments read orally w/ extended time Concept chunking Graphic organizer concept maps Picture study guides Small group instruction Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts	Extended time for assignments Frequent breaks Sign agenda book daily Study guides Graphic organizers
<b>ELL</b>	<b>Gifted &amp; Talented</b>

<p>Picture study guides Video presentation/Audio presentation Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts Spanish pupil editions including assessments</p>	<p>Independent extension research projects Jigsaw cooperative learning activities Student choice Advanced Activities Class grouping</p>
<p><b><u>At Risk/I&amp;RS</u></b></p>	<p><b><u>At Risk/I&amp;RS</u></b></p>
<p><b>Presentation accommodations</b> (changes the way information is presented)</p> <ul style="list-style-type: none"> <li>● Listen to audio recordings instead of reading text</li> <li>● Learn content from videos, and digital media instead of reading print versions</li> <li>● Work with fewer items per page or line</li> <li>● Have a “designated reader”—someone who reads test questions aloud to</li> <li>● Hear instructions spoken aloud</li> <li>● Get class notes from teacher</li> <li>● See an outline of a lesson</li> <li>● Use visual presentations of verbal material, such as word webs</li> <li>● Get a written list of instructions</li> </ul> <p><b>Response accommodations</b> (changes the way kids complete assignments or tests)</p> <ul style="list-style-type: none"> <li>● Give responses in a form (spoken or written) that’s easier for them</li> <li>● Dictate answers to a scribe who writes or types</li> <li>● Use a spelling dictionary or digital spell-checker</li> <li>● Use a laptop to type notes or give answers in class</li> <li>● Use a calculator or table of “math facts”</li> </ul> <p><b>Setting accommodations</b></p> <ul style="list-style-type: none"> <li>● Work or take a test in a different setting, such as a quiet room with few distractions</li> <li>● Sit where they learn best (for example, near the teacher)</li> <li>● Adjust lighting in the classroom</li> <li>● Take a test in a small group setting</li> </ul>	<p><b>Common Modifications</b></p> <p><b>Assignment modifications</b></p> <ul style="list-style-type: none"> <li>● Complete fewer or different homework problems than peers</li> <li>● Write shorter answers to questions</li> <li>● Answer fewer or different test questions</li> <li>● Create alternate projects or assignments</li> </ul> <p><b>Curriculum modifications</b></p> <ul style="list-style-type: none"> <li>● Learn different material (such as continuing to work on multiplication while classmates move on to fractions)</li> <li>● Get graded or assessed using a different standard than other students</li> <li>● Be excused from particular projects</li> </ul> <p><b>Scheduling accommodations</b></p> <ul style="list-style-type: none"> <li>● Take more time to complete a project</li> <li>● Take a test in several sessions or over several days</li> <li>● Take sections of a test in a different order</li> <li>● Take a test at a specific time of day</li> </ul> <p><b>Organization skills accommodations</b></p> <ul style="list-style-type: none"> <li>● Mark notes with a highlighter</li> <li>● Use a planner or organizer to help coordinate assignments</li> <li>● Receive organizational skills instruction</li> </ul>

### Timing accommodations

- Take more time to complete a task or a test
- Have extra time to process spoken information and directions
- Take frequent breaks, such as after completing a worksheet

### Internet Resources

Big Idea Math Series <https://www.bigideasmath.com/>

ixl math <https://www.ixl.com/>

prodigy <https://www.prodigygame.com/>

National Library of Virtual Manipulatives <http://nlym.usu.edu/en/nav/vlibrary.html>

Internet4classrooms [https://www.internet4classrooms.com/skills\\_6th.htm](https://www.internet4classrooms.com/skills_6th.htm)

Future Smart Financial Literacy <https://platform.everfi.net/teacher/curriculum/25/demo>

Junior Achievement <http://learn.ja.org>

### Gr –3th Grade Unit 4-Measurement and Data

#### Unit Overview

*Content topic and skill focus:* **Measurement and Data**

*Standard, Strand, and Content statements (CPIs listed below)*

Learning in this unit will focus on: **Measurement and Data**

**Standard MA.3.MD.A.1, MA.3.MD.A.2, MA3.MD.B.3, MA3.MD.B.4, MA3.MD.C.5, MA3.MD. C.6, MA3.MD.C.7, MA3.MD.D.8.**

**Content Statement:** Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication, and justify using multiplication to determine the area of a rectangle.

**Instructional Focus: Measurement and Data**

**Lesson #:** Sections 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 14.1, 14.2, 14.3, 14.4, 14.5, 14.6, 14.7, 6.1, 6.2, 6.3, 6.4, 6.5, 15.1, 15.2, 15.3, 15.4, 15.5.

#### Essential Questions:

- How to tell time to the nearest minute.
- How to measure elapsed time, in minutes, within the same hour.
- How to measure elapsed time, in minutes, from one hour to the next.
- How to use the problem-solving plan to solve time interval problems.
- How to understand and estimate liquid volumes in metric units.
- How to measure liquid volumes in liters and milliliters.
- How to understand and estimate masses of objects.
- How to measure masses in grams and kilograms.
- How to understand the data shown by a picture graph.

- How to use data to make picture graphs.
- How to understand the data shown by a bar graph.
- How to use data to make bar graphs.
- How to use data to make line plots.
- How to measure objects to the nearest half inch and make line plots.
- How to measure objects to the nearest quarter inch and make line plots.
- How to count to find the area of a shape.
- How to count to find the area of a shape using standard units.
- How to use multiplication to find the area of a rectangle.
- How to use the Distributive Property to find the area of a rectangle.
- How to find the area of a shape made up of rectangles.
- How to find perimeters of figures.
- How to find perimeters of polygons.
- How to use perimeter to find the unknown side lengths of a polygon.
- How to use area to compare rectangles with the same perimeter.
- How to use perimeter to compare rectangles with the same area.

**Student Learning Objectives: STUDENTS WILL BE ABLE TO:**

- MA.3.MD - Measurement and Data
- MA.3.MD.A Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
- MA.3.MD.A.1 [*Standard*] - 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.

Excludes compound units such as  $\text{cm}^3$  and finding the geometric volume of a container. Excludes multiplicative comparison problems (problems involving notions of “times as much”; see Glossary, Table 2).

- MA.3.MD.A.2 [*Standard*] - 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.
- MA.3.MD.B.3 [*Standard*] - 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.
- MA.3.MD.B.4 [*Standard*] - 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.
- MA.3.MD.C.5 [*Standard*] - Recognize area as an attribute of plane figures and understand concepts of area measurement.
  - MA.3.MD.C.5a 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.
  - MA.3.MD.C.5b 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.
- MA.3.MD.C.6 [*Standard*] - Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units).
- MA.3.MD.C.7 [*Standard*] - Relate area to the operations of multiplication and addition.
  - MA.3.MD.C.7a Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
  - MA.3.MD.C.7b Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

- MA.3.MD.C.7c Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.
- MA.3.MD.C.7d 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.
- MA.3.MD.D Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.
  - MA.3.MD.D.8 [*Standard*] - 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.

**Suggested Activities**

- Introduction videos
- IXL
- Graphic organizers
- Scavenger hunts
- Flash cards
- My Dear Aunt Sally Game
- Online textbook lesson
- Online questions correlated to textbook
- Stem videos

**Instructional Materials/Resources**

- Big Ideas Math Textbook copyright 2022
- Big Ideas record and practice journal
- Big Ideas resource by chapter workbook
- Big Ideas skills review handbook
- Teacher made materials
- Instructional videos
- Quizzes
- Online chapter review
- Online practice test
- Online test

	<ul style="list-style-type: none"> <li>● Cumulative assessments</li> <li>● Benchmark tests</li> <li>● Performance assessment</li> </ul>
<b>Pacing: approx # of class periods:</b>	

**NJ Student Learning Standards for Math: Standard MA.3.MD.A.1, MA.3.MD.A.2, MA3.MD.B.3, MA3.MD.B.4, MA3.MD.C.5, MA3.MD. C.6, MA3.MD.C.7, MA3.MD.D.8.**

**Interdisciplinary Connections**

**Language Arts Literacy** LA.RL.3.1, LA.RI.3.4, LA.RF.3.4.C, LA.W3.1.A, LA.W.3.1.B, LA.W.3.2.A, LA.W.3.2.B, LA.W.3.2.C, LA.W.3.2.D, LA.W.3.2.F, LA.W.3.4, LA.L.3.2.B, LA.3.3.A, LA.L.3.4.C, LA.L.3.6

**Career Readiness-Personal Financial Literacy** PFL.9.1.4.D.1, PFL.9.1.4.D.2, PFL.9.1.4.D.3, PFL.9.1.4.E.1, PFL.9.1.4.E.2

**Career Awareness, Exploration, and Training** WRK.9.2.5.CAP.2

**Life Literacy and Key Skills** TECH.9.4.5.CT.1, TECH.9.4.5.TL.1, TECH. 9.4.5.TL.2, TECH.9.4.5.CT.3

**Integration of Technology**

Math instruction engages students in a variety of learning experiences using technology. The following standards will be addressed through the activities in this unit:

**Computer Science and Design Thinking** CS.3-5.8.1.5.DA.1, CS.3-5.8.1.5.DA.5, CS.3-5.8.2.5.ED.2, CS.3-5.8.2.5.ED.3

**21st Century Life and Career Skills**

X	CRP1. Act as a responsible and contributing citizen and employee.
X	CRP2. Apply appropriate academic and technical skills.
X	CRP3. Attend to personal health and financial well-being.
X	CRP4. Communicate clearly and effectively and with reason.
	CRP5. Consider the environmental, social and economic impacts of decisions.
X	CRP6. Demonstrate creativity and innovation.
	CRP7. Employ valid and reliable research strategies.
X	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.
X	CRP11. Use technology to enhance productivity.
	CRP12. Work productively in teams while using cultural global competence.

**Evidence of Learning**

Summative and Benchmark Assessments	Formative Assessments and Alternative Activities	
Unit Pretest Unit Project Unit Test Performance Assessment Beginning of the year benchmark Trimester benchmark End of year benchmark	Hand Signals Student Conference Fun and Games Class work/participation Critical Thinking Skill activity Writing about Math Textbook Interactive Activities ixl record and practice journal	Lesson Review questions Reading Check questions Share/Pair Skills Practice Study Guide Teacher Observation Unit Review Vocabulary Review Graphic Organizers Homework and Practice pages Writing Connection Content Videos Online Questions

### Instructional Delivery

Student learning experiences will include a combination of instructional strategies appropriate to the content and skills being taught. Lessons may include (but are not limited to) the following:

- Direct instruction/demonstration
- Interactive/Guided math strategies
- Cooperative learning activities
- Digital activities including videos, games, assessments
- Research projects and Presentation projects
- Small Group Instruction
- Share Examples
- Visual Aids
- Learning Centers
- Modeled, Shared, and Independent Activities
- Active Learning

### Differentiated Instruction, Accommodations & Adaptations

Alternative Assessments  
 Goal Setting with Students  
 Homework Options  
 Frequent Breaks  
 Tests Read Aloud  
 Color Coded Assignments/books/notebooks/folders

Cooperative Learning  
 Picture Vocabulary Wall  
 Anchor Charts of Concepts  
 Change in Content, Process, Product  
 Flexible Grouping  
 Modified Class Assignments

<b>Special Education/IEP</b>	<b>504</b>
Assessments/assignments read orally w/ extended time	Extended time for assignments

<p>Concept chunking  Graphic organizer concept maps  Picture study guides  Small group instruction  Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts</p>	<p>Frequent breaks  Sign agenda book daily  Study guides  Graphic organizers</p>
<p><b>ELL</b></p>	<p><b>Gifted &amp; Talented</b></p>
<p>Picture study guides  Video presentation/Audio presentation  Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts  Spanish pupil editions including assessments</p>	<p>Independent extension research projects  Jigsaw cooperative learning activities  Student choice  Advanced Activities  Class grouping</p>
<p><b><u>At Risk/I&amp;RS</u></b></p>	<p><b><u>At Risk/I&amp;RS</u></b></p>
<p><b>Presentation accommodations</b> (changes the way information is presented)</p> <ul style="list-style-type: none"> <li>● Listen to audio recordings instead of reading text</li> <li>● Learn content from videos, and digital media instead of reading print versions</li> <li>● Work with fewer items per page or line</li> <li>● Have a “designated reader”—someone who reads test questions aloud to</li> <li>● Hear instructions spoken aloud</li> <li>● Get class notes from teacher</li> <li>● See an outline of a lesson</li> <li>● Use visual presentations of verbal material, such as word webs</li> <li>● Get a written list of instructions</li> </ul> <p><b>Response accommodations</b> (changes the way kids complete assignments or tests)</p> <ul style="list-style-type: none"> <li>● Give responses in a form (spoken or written) that’s easier for them</li> <li>● Dictate answers to a scribe who writes or types</li> <li>● Use a spelling dictionary or digital spell-checker</li> <li>● Use a laptop to type notes or give answers in class</li> <li>● Use a calculator or table of “math facts”</li> </ul>	<p><b>Common Modifications</b></p> <p><b>Assignment modifications</b></p> <ul style="list-style-type: none"> <li>● Complete fewer or different homework problems than peers</li> <li>● Write shorter answers to questions</li> <li>● Answer fewer or different test questions</li> <li>● Create alternate projects or assignments</li> </ul> <p><b>Curriculum modifications</b></p> <ul style="list-style-type: none"> <li>● Learn different material (such as continuing to work on multiplication while classmates move on to fractions)</li> <li>● Get graded or assessed using a different standard than other students</li> <li>● Be excused from particular projects</li> </ul> <p><b>Scheduling accommodations</b></p> <ul style="list-style-type: none"> <li>● Take more time to complete a project</li> <li>● Take a test in several sessions or over several days</li> <li>● Take sections of a test in a different order</li> <li>● Take a test at a specific time of day</li> </ul> <p><b>Organization skills accommodations</b></p> <ul style="list-style-type: none"> <li>● Mark notes with a highlighter</li> </ul>

<p><b>Setting accommodations</b></p> <ul style="list-style-type: none"> <li>• Work or take a test in a different setting, such as a quiet room with few distractions</li> <li>• Sit where they learn best (for example, near the teacher)</li> <li>• Adjust lighting in the classroom</li> <li>• Take a test in a small group setting</li> </ul> <p><b>Timing accommodations</b></p> <ul style="list-style-type: none"> <li>• Take more time to complete a task or a test</li> <li>• Have extra time to process spoken information and directions</li> <li>• Take frequent breaks, such as after completing a worksheet</li> </ul>	<ul style="list-style-type: none"> <li>• Use a planner or organizer to help coordinate assignments</li> <li>• Receive organizational skills instruction</li> </ul>
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#### Internet Resources

Big Idea Math Series <https://www.bigideasmath.com/>

ixl math <https://www.ixl.com/>

prodigy <https://www.prodigygame.com/>

National Library of Virtual Manipulatives <http://nlvm.usu.edu/en/nav/vlibrary.html>

Internet4classrooms [https://www.internet4classrooms.com/skills\\_6th.htm](https://www.internet4classrooms.com/skills_6th.htm)

Future Smart Financial Literacy <https://platform.everfi.net/teacher/curriculum/25/demo>

Junior Achievement <http://learn.ja.org>

#### Gr –3th Grade Unit 5-Geometry

##### Unit Overview

*Content topic and skill focus:* **Geometry**

*Standard, Strand, and Content statements (CPIs listed below)*

Learning in this unit will focus on: **Geometry**

**Standard MA.3.G.A.1, MA.3.G.A.2**

**Content Statement:** Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

**Instructional Focus:** Geometry

**Lesson #:** Sections 13.1, 13.2, 13.3, 13.4, 10.1, 10.2, 10.3

##### Essential Questions:

- How to identify parallel sides and right angles of quadrilaterals.
- How to describe quadrilaterals using sides and angles.
- How to classify quadrilaterals based on their attributes.
- How to draw quadrilaterals.
- How to identify equal parts of a whole and name them.
- How to identify and write a unit fraction.
- How to identify and write a fraction.

<p><b>Student Learning Objectives: STUDENTS WILL BE ABLE TO:</b></p> <ul style="list-style-type: none"> <li>● MA.3.G (Doman) Geometry</li> <li>● MA.3.G.A Reason with shapes and their attributes.</li> <li>● MA.3.G.A.1 [<i>Standard</i>] - 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.</li> <li>● MA.3.G.A.2 [<i>Standard</i>] - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</li> </ul>	
<p><b>Suggested Activities</b></p> <ul style="list-style-type: none"> <li>● Introduction videos</li> <li>● IXL</li> <li>● Graphic organizers</li> <li>● Scavenger hunts</li> <li>● Flash cards</li> <li>● My Dear Aunt Sally Game</li> <li>● Online textbook lesson</li> <li>● Online questions correlated to textbook</li> <li>● Stem videos</li> </ul>	<p><b>Instructional Materials/Resources</b></p> <ul style="list-style-type: none"> <li>● Big Ideas Math Textbook copyright 2022</li> <li>● Big Ideas record and practice journal</li> <li>● Big Ideas resource by chapter workbook</li> <li>● Big Ideas skills review handbook</li> <li>● Teacher made materials</li> <li>● Instructional videos</li> <li>● Quizzes</li> <li>● Online chapter review</li> <li>● Online practice test</li> <li>● Online test</li> <li>● Cumulative assessments</li> <li>● Benchmark tests</li> <li>● Performance assessment</li> </ul>
<p><b>Pacing: approx # of class periods: 9</b></p>	

**NJ Student Learning Standards for Math: MA.3.G.A.1, MA.3.G.A.2**

**Interdisciplinary Connections**

**Language Arts Literacy** LA.RL.3.1, LA.RI.3.4, LA.RF.3.4.C, LA.W.3.1.A, LA.W.3.1.B, LA.W.3.2.A, LA.W.3.2.B, LA.W.3.2.C, LA.W.3.2.D, LA.W.3.2.F, LA.W.3.4, LA.L.3.2.B, LA.3.3.A, LA.L.3.4.C, LA.L.3.6

**Career Readiness-Personal Financial Literacy** PFL.9.1.4.D.1, PFL.9.1.4.D.2, PFL.9.1.4.D.3, PFL.9.1.4.E.1, PFL.9.1.4.E.2

**Career Awareness, Exploration, and Training** WRK.9.2.5.CAP.2

**Life Literacy and Key Skills** TECH.9.4.5.CT.1, TECH.9.4.5.TL.1, TECH. 9.4.5.TL.2, TECH.9.4.5.CT.3

**Integration of Technology**

Math instruction engages students in a variety of learning experiences using technology. The following standards will be addressed through the activities in this unit:

**Computer Science and Design Thinking** CS.3-5.8.1.5.DA.1, CS.3-5.8.1.5.DA.5, CS.3-5.8.2.5.ED.2, CS.3-5.8.2.5.ED.3

**21st Century Life and Career Skills**

X	CRP1. Act as a responsible and contributing citizen and employee.
X	CRP2. Apply appropriate academic and technical skills.

X	CRP3. Attend to personal health and financial well-being.
X	CRP4. Communicate clearly and effectively and with reason.
	CRP5. Consider the environmental, social and economic impacts of decisions.
X	CRP6. Demonstrate creativity and innovation.
	CRP7. Employ valid and reliable research strategies.
X	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.
X	CRP11. Use technology to enhance productivity.
	CRP12. Work productively in teams while using cultural global competence.

### Evidence of Learning

Summative and Benchmark Assessments	Formative Assessments and Alternative Activities
Unit Pretest Unit Project Unit Test Performance Assessment Beginning of the year benchmark Trimester benchmark End of year benchmark	Hand Signals Student Conference Fun and Games Class work/participation Critical Thinking Skill activity Writing about Math Textbook Interactive Activities ixl record and practice journal Lesson Review questions Reading Check questions Share/Pair Skills Practice Study Guide Teacher Observation Unit Review Vocabulary Review Graphic Organizers Homework and Practice pages Writing Connection Content Videos Online Questions

### Instructional Delivery

Student learning experiences will include a combination of instructional strategies appropriate to the content and skills being taught. Lessons may include (but are not limited to) the following:

- Direct instruction/demonstration
- Interactive/Guided math strategies
- Cooperative learning activities
- Digital activities including videos, games, assessments
- Research projects and Presentation projects
- Small Group Instruction
- Share Examples
- Visual Aids
- Learning Centers
- Modeled, Shared, and Independent Activities

- Active Learning

**Differentiated Instruction, Accommodations & Adaptations**

Alternative Assessments  
 Goal Setting with Students  
 Homework Options  
 Frequent Breaks  
 Tests Read Aloud  
 Color Coded Assignments/books/notebooks/folders

Cooperative Learning  
 Picture Vocabulary Wall  
 Anchor Charts of Concepts  
 Change in Content, Process, Product  
 Flexible Grouping  
 Modified Class Assignments

<b>Special Education/IEP</b>	<b>504</b>
Assessments/assignments read orally w/ extended time Concept chunking Graphic organizer concept maps Picture study guides Small group instruction Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts	Extended time for assignments Frequent breaks Sign agenda book daily Study guides Graphic organizers
<b>ELL</b>	<b>Gifted &amp; Talented</b>
Picture study guides Video presentation/Audio presentation Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts Spanish pupil editions including assessments	Independent extension research projects Jigsaw cooperative learning activities Student choice Advanced Activities Class grouping
<b><u>At Risk/I&amp;RS</u></b>	<b><u>At Risk/I&amp;RS</u></b>
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- Be excused from particular projects

**Scheduling accommodations**

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