

Ocean Academy Charter School  
Curriculum Guide  
Grade 3 - Mathematics



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| <b>Original Adoption:</b> | August 2025                      |
| <b>Created by:</b>        | Amy LaBarca and Dariaknna Yencer |

| OCEAN ACADEMY CHARTER SCHOOL<br>Mathematics Curriculum                                                                                                                                                                   |                                     |
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| <b>Content Area:</b> Mathematics                                                                                                                                                                                         |                                     |
| <b>Course Title:</b> Elementary Mathematics                                                                                                                                                                              |                                     |
| <b>Grade Level:</b> Grade 3                                                                                                                                                                                              |                                     |
| <b>Trimester 1:</b><br><u>Unit 1:</u> Three-Digit Numbers: Place Value, Addition, and Subtraction<br><u>Unit 2:</u> Multiplication and Division: Concepts Relationships, and Patterns                                    | Unit 1- 31 Days<br>Unit 2 - 53 Days |
| <b>Trimester 2:</b><br>**Complete Unit 2**<br><u>Unit 3:</u> Multiplication: Finding Area, Solving Word Problems, and Using Scaled Graphs<br><u>Unit 4:</u> Fractions: Equivalence and Comparison, Measurement, and Data | Unit 3- 30 Days<br>Unit 4- 30 Days  |
| <b>Trimester 3:</b><br>**Complete Unit 4**<br><u>Unit 5:</u> Measurement: Time, Liquid Volume, and Mass<br><u>Unit 6:</u> Shapes: Attributes and Categories, Perimeter and Area, and Partitioning                        | Unit 5- 16 Days<br>Unit 6- 20 Days  |

| OCEAN ACADEMY CHARTER SCHOOL<br>Unit 1 Overview              |                          |
|--------------------------------------------------------------|--------------------------|
| <b>Content Area:</b> Mathematics                             |                          |
| <b>Unit Title:</b> Unit 1: Three Digit Numbers (Trimester 1) | <b>Duration:</b> 31 Days |

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**Target Course/Grade Level: Grade 3**

**Introduction/Unit Focus:**

This unit focuses on using place value understanding and the properties of operations to perform multi-digit arithmetic with confidence and accuracy. Students will build on their foundational knowledge of place value to round numbers to the nearest ten and hundred. They will apply this understanding to add and subtract multi-digit numbers efficiently, while also solving real-world word problems that involve these operations. Emphasizing the connection between place value and arithmetic strategies helps deepen students' number sense and problem-solving skills.

To prepare for this work, students should be familiar with identifying the hundreds, tens, and ones places within numbers and understanding the value each digit represents. They should also be comfortable skip-counting by tens and hundreds and recognizing whether digits are less than, equal to, or greater than five. Additionally, students should have mastered basic addition and subtraction facts and understand place-value concepts, including writing numbers in expanded form. They will also apply properties of addition, such as the commutative and associative properties, and explore the inverse relationship between addition and subtraction. This prior knowledge sets the foundation for fluently performing multi-digit arithmetic and using place value as a tool for computation and reasoning throughout this unit.

**Disciplinary Concepts for the Unit**

**Standard 9.1 Personal Financial Literacy**

This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

**Standard 9.2 Career Awareness, Exploration, Preparation and Training**

This standard outlines the importance of being knowledgeable about one's interests and talents, and being wML informed about postsecondary and career options, career planning, and career requirements.

**Standard 9.4 Life Literacies and Key Skills**

This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy\* that are critical for students to develop to live and work in an interconnected global economy.

**Standard 8.1 Computer Science**

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Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

**Standard 8.2 Design Thinking**

Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

**Amistad Law: N.J.S.A. 18A 52:16A-88** Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

**Holocaust Law: N.J.S.A. 18A:35-28** Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens. .

**Diversity and Inclusion: C.18A:35-4.36a** Curriculum to include instruction on diversity and inclusion.

The instruction shall:

- (1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;
- (2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and
- (3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

**Asian Americans and Pacific Islanders (AAPI)**

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

**21st Century Themes and Skills**

“Twenty-first century themes and skills” means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the

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| challenges and opportunities in an interconnected global economy.”                                                                                                                         |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Content Statements</b>                                                                                                                                                                  |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| This unit extends students’ understanding of place value and adding and subtracting with three-digit numbers.                                                                              |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics, Reading/Language Arts, Technology                                                                       |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Focus Standards (Major Standards) <a href="https://www.nj.gov/education/cccs/">https://www.nj.gov/education/cccs/</a>                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Content Standards                                                                                                                                                                          | Suggested Mathematical Practices                                                                                                                                                                         | Critical Knowledge & Skills                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3.NBT.A.1. Round whole numbers to the nearest 10 or 100.                                                                                                                                   | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP5: Use appropriate tools strategically</p> <p>MP7: Look for and make use of structure.</p> | <p>Concept(s): Rounding leads to an approximation or estimate.</p> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ use number lines and a hundreds chart to explain rounding numbers to the nearest 10 and 100.</li> <li>➤ round a whole number to the nearest 10.</li> <li>➤ round a whole number to the nearest 100.</li> </ul> <p>Learning Goal: Round whole numbers to the nearest 10 or 100.</p> |
| 3.NBT.A.2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP5: Use appropriate tools strategically</p> <p>MP7: Look for and make use of structure.</p> | <p>Concept(s): Use place value understanding and properties of operations to perform multi-digit arithmetic.</p> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ add and subtract two 2-digit whole</li> </ul>                                                                                                                                                                                        |

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|  | MP8: Look for and express regularity in repeated reasoning. | <p>numbers <u>within 100</u> with accuracy and efficiency.</p> <p>➤ Learning Goal 8: Fluently add and subtract (with regrouping) two 2-digit whole numbers <u>within 100</u>.</p> <p>Learning Goal: Fluently add and subtract (with regrouping) two 2-digit whole numbers <u>within 100</u>.</p> |
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**New Jersey Student Learning Standards: Interdisciplinary Connections**

SL.PE.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.

- A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- B. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- C. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- D. Explain their own ideas and understanding in light of the discussion.

SL.II.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL.ES.3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

SL.AS.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

W.IW.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- A. Introduce a topic clearly.
- B. Develop the topic with facts, definitions, and concrete details, text evidence, or other information and examples related to the topic.
- C. Include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.

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- D. Link ideas within sections of information using transition words and phrases (e.g., then, because, also, another, therefore).
- E. Provide a conclusion related to the information or explanation presented.

W.WP.3.4. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

- A. Identify audience, purpose, and intended length of composition before writing.
- B. Consider writing as a process, including self-evaluation, revision and editing.
- C. With adult and peer feedback, and digital or print tools such as a dictionary, thesaurus, and/or spell checker, find and correct errors and improve word choice.

W.RW.3.7. Engage in independent and task-based writing for both short and extended periods of time, producing written work routinely.

L.RF.3.4. Read with sufficient accuracy and fluency to support comprehension.

- A. Read grade-level text with purpose and understanding.
- B. Read grade-level text orally with accuracy, appropriate rate, and expression.
- C. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

**New Jersey Student Learning Standards: [Career Readiness, Life Literacies, and Key Skills Articulation Guide](#)**

| <b>Core Ideas</b>                                                                                                                           | <b>Performance Expectations (Identified with Standard Number and statement)</b>                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills. | 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).                                                      |
| The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.             | 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).<br><br>9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems. |
| Different digital tools have different purposes.                                                                                            | 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.                                                                                               |

**New Jersey Student Learning Standards: [Computer Science and Design Thinking Articulation Guide](#)**

| <b>Core Ideas</b>                                                           | <b>Performance Expectations (Identified with Standard Number and Statement)</b>                         |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Data can be organized, displayed, and presented to highlight relationships. | 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim. |
| Individuals can select,                                                     | 8.1.5.DA.3: Organize and present collected data visually to                                             |

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| organize, and transform data into different visual representations and communicate insights gained from the data.     | communicate insights gained from different views of the data.                                                     |
| Different algorithms can achieve the same result. Some algorithms are more appropriate for a specific use than others | 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate. |

**New Jersey Student Learning Standards: [Climate Change Mandate](#)**

| Core Ideas                                                                                                                                | Performance Expectations (Identified with Standard Number and Statement)                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data. | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. |

**Knowledge and Skills**

**Unit Learning Targets (Objectives):**  
*Students will be able to...*

**Content Objectives:**

- Use the Try-Discuss-Connect Routine to make sense of problems, share solution strategies, and build conceptual understanding.
- Apply modeling techniques to solve new problems using familiar math concepts.
- Write three-digit numbers in both word form and expanded form.
- Compare three-digit numbers using place value understanding.
- Break apart numbers to add three-digit numbers using place value strategies.
- Round two- and three-digit numbers to the nearest ten.
- Round three-digit numbers to the nearest hundred.
- Explain and justify strategies used when rounding to the nearest ten or hundred.
- Use a variety of strategies to add and subtract three-digit numbers.
- Add and subtract three-digit numbers using place-value reasoning, including regrouping as needed.
- Draw and use open number lines to find the difference between two numbers.

**Language Objectives:**

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- Describe the concept and purpose of rounding.
- Explain why rounding is useful when estimating.
- Summarize word problems involving addition and subtraction.
- Use mathematical language to compare and critique different strategies for solving problems.
- Identify similarities and connections among various solution approaches shared by peers.
- Clearly describe personal thinking to others using appropriate math vocabulary.
- Revoice and refine mathematical ideas during group discussions.
- Use agreed-upon classroom signals (such as thumbs-up/thumbs-down) to indicate agreement or disagreement with strategies or solutions.
- Ask clarifying questions and provide feedback during math discourse.

**Unit Enduring Understandings:**

*Students will know...*

- Understanding place value helps you use strategies like partial sums or differences to add and subtract.
- Rounding numbers helps you make good estimates and can make addition and subtraction easier.

**Unit Essential Questions:**

- How can place value help you add or subtract using strategies like partial sums or differences?
- How is rounding useful when making estimates?
- How does rounding help you solve addition and subtraction problems?

**Instructional Plan**

*Ready Classroom Mathematics* uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

**Whole Group Instruction**

- Session Activities
  - Explore--Students draw on prior knowledge and make connections to new concepts
  - Develop--Students develop strategies and understanding through problem solving and discourse
  - Refine--Students deepen their understanding and strengthen their skills
- What Happens In the Classroom



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- Students make sense of problems and attempt their own representations and solution strategies.
- Hints are provided to students in the form of questions to consider as they solve each problem
- Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
- Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
- The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
- Whole group discussion allows for students to show their thinking
- Try-Discuss Connect Routine
  - Try
    - Make sense of the problem
    - Solve and support your thinking
  - Discuss
    - Share your thinking with a partner
    - Compare Strategies
  - Connect
    - Make connections and reflect on what you have learned
    - Apply your thinking to a new problem
- Resources:
  - Ready Classroom Teacher Toolkit
    - Instruction and Practice
      - Editable Powerpoint
      - Interactive Tutorial
      - Student Worktext
      - Discourse Cards
      - Digital Manipulatives
      - Math Journal
      - Lesson Vocabulary Activities
      - Unit Game
      - Exit Ticket

Small Group Differentiation

- Prepare
  - Ready Prerequisite Lessons
- Reteach
  - Tools for Instruction
- Reinforce
  - Differentiated Math Center Activities
- Extend
  - Enrichment Activities

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**Independent Learning**

- iReady online personalized instruction generated from iReady Diagnostic assessment
- Fluency and skills practice
- Interactive Tutorials (Lesson, Prerequisite, or Extend)
- Math Center Activities
- Additional Practice Activities
- Online Fluency Games

| Mathematical Practice                                           | Habit                      |
|-----------------------------------------------------------------|----------------------------|
| Make sense of problems and persevere in solving them            | Solve problems             |
| Reason abstractly and quantitatively                            | Think and reason           |
| Construct viable arguments and critique the reasoning of others | Show and explain           |
| Model with Mathematics                                          | Use math in the real world |
| Use appropriate tools strategically                             | Choose a tool              |
| Attend to precision                                             | Be clear and precise       |
| Look for and make use of structure                              | Zoom in and out            |
| Look for and express regularity in repeated reasoning           | Use patterns               |

**Evidence of Student Learning**

**Formative Assessments:**

- Teacher Observation
- Games
- Performance Assessment
- Anecdotal Records
- Exit Slips
- Oral Assessment/Conferencing
- Portfolios/ Journals
- Daily Classwork
- Pre-Assessment

**Summative Assessments**

- Unit Tests
- Quizzes
- Writing Samples

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**Benchmark Assessments:**

- Unit Assessments
- iReady Diagnostic

**Alternative Assessments**

- Portfolio review
- Anecdotal Notes

**Performance Tasks:**

- Project Based Learning Activity
- Math In Action

**Suggested Options for Differentiation and Modifications**

**Special Education**

- Follow all IEP modifications.
  - Provide visuals, graphic organizers, and manipulatives.
  - Pre-teach and review vocabulary and concepts.
  - Offer summaries, word banks, and visual glossaries.
  - Use leveled texts and scaffolds for complex tasks.
  - Provide small-group guided instruction.
  - Use peer tutoring or a supportive “buddy.”
  - Allow preferential seating.
  - Give extra time on tasks and assessments.
  - Accept oral or dictated responses.
  - Shorten or adjust the number and types of questions.
  - Provide large-print, Braille, or digital text with audio supports.
  - Use scribes or communication devices when needed.
- 

**Students with 504 Plans**

- Follow the 504 plan.
  - Provide extra time for assignments/tests.
  - Offer small-group settings.
  - Accept oral or dictated responses.
  - Provide large-print, Braille, or digital text.
  - Allow use of a scribe or communication device.
- 

**Students at Risk of School Failure**

- Use visuals and hands-on supports.
- Pre-teach vocabulary and key concepts.
- Provide small-group instruction and guided practice.

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- Read aloud directions; model steps.
  - Assign peer tutors or partners.
  - Offer preferential seating.
  - Break down multi-step tasks into smaller parts.
- 

### **Gifted and Talented**

- Ask open-ended, higher-order questions (analyze, evaluate, create).
  - Use “why” and “what if” prompts to deepen thinking.
  - Provide extension activities based on interests.
  - Offer advanced reading lists or enrichment projects.
  - Group flexibly by ability, interest, or project choice.
  - Use organizers, puzzles, and independent research tasks.
  - Provide options and choice in assignments.
  - Encourage participation in simulations and problem-solving challenges.
  - Include opportunities for reflection and debriefing.
- 

### **Multilingual Learners**

- Collaborate with ESL/MLL specialists.
  - Provide small-group instruction with language scaffolds.
  - Pre-teach vocabulary; label classroom items and visuals.
  - Use visual glossaries, cognates, and graphic organizers.
  - Offer sentence frames and speaking supports.
  - Allow oral responses and extra time on assignments.
  - Provide audio books, recorded directions, or read-aloud support.
- 

### **Diversity and Inclusion**

- Respect and incorporate cultural traditions.
- Provide alternative assignments when appropriate.
- Use visuals and clear, direct language.
- Collaborate with language and support staff.
- Maintain a structured, inclusive classroom environment.
- Build strong connections with families and caregivers.

## **Supplemental Resources**

Instructional Materials

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- Ready Math Interactive Tutorials
- Ready Math Textbook

Supplemental Materials

- Task Cards
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- edPuzzle
- Nearpod

Intervention Materials

- Task Cards
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- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- Ready Tools for Instruction

**OCEAN ACADEMY CHARTER SCHOOL**  
**Unit 2 Overview**

**Content Area:** [Mathematics](#)

**Unit Title:** Unit 2: Multiplication and Division (Trimester 1 & 2)

**Duration:** 53 Days

**Target Course/Grade Level:** Grade 3

**Introduction/Unit Focus:**

This unit focuses on developing a deep understanding of multiplication and division, including their properties and the relationship between the two operations. Students will learn to represent and solve problems involving multiplication and division within 100 by using strategies such as equal groups, arrays, and place value. They will explore how breaking apart numbers, using order and grouping, and applying place value concepts can make multiplication easier and more efficient. Additionally, students will solve problems that involve all four operations: addition, subtraction, multiplication, and division while identifying and explaining patterns in arithmetic to deepen their number sense and problem-solving abilities.

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To support mastery of these skills, students will build on foundational concepts such as understanding equal groups, using repeated addition to find totals in arrays, and representing multiplication equations with the appropriate symbols. They will develop fluency in skip-counting by twos, fives, and tens, and understand multiplication as the process of finding the total number of objects in equal groups or arrays. Throughout the unit, students will use multiplication and division equations to represent and solve word problems, further connecting the two operations. They will also gain familiarity with basic multiplication facts through 10, and begin to explore division as the inverse of multiplication.

In preparation for this unit, students should already be comfortable with the concept of equal groups, writing equations to express totals in arrays, and skip-counting by multiples of two, five, and ten. They will extend their understanding by building arrays, solving word problems involving equal groups, and exploring the connections between multiplication and division. Through this work, students will also recognize patterns in numbers, differentiate between even and odd numbers, and complete addition and multiplication tables, all of which contribute to a strong foundation for more advanced arithmetic concepts. This unit encourages students to apply their knowledge flexibly and confidently across various problem-solving contexts.

### **Disciplinary Concepts for the Unit**

#### **Standard 9.1 Personal Financial Literacy**

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#### **Standard 9.2 Career Awareness, Exploration, Preparation and Training**

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**Content Statements**

**This unit introduces students to multiplication and division.**

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| Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics, Reading/Language Arts, Technology                                                                                                                                             |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Focus Standards (Major Standards) <a href="https://www.nj.gov/education/cccs/">https://www.nj.gov/education/cccs/</a>                                                                                                                                            |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Content Standards                                                                                                                                                                                                                                                | Suggested Mathematical Practices                                                                                                                                                                | Critical Knowledge & Skills                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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 $5 \times 7$ . | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP 2: Reason abstractly and quantitatively.</p> <p>MP4: Model with mathematics.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Multiplication is a means to determine the total number of objects when there are a specific number of groups with the same number of objects in each group.</li> <li>➤ Multiplication is a means to determine the total number of objects when there are a specific number of groups with the same number of objects in each group.</li> <li>➤ Multiplication gives the same result as repeated addition.</li> <li>➤ Product of two whole numbers is the total number of objects in a number of equal groups.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ interpret products of whole numbers as a total number of objects.</li> <li>➤ use repeated addition to find the total number of objects arranged in an array and in</li> </ul> |



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|                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                | <p>equal groups and compare to the result of multiplication.</p> <ul style="list-style-type: none"> <li>➤ describe a context in which a total number of objects is represented by a product.</li> <li>➤ interpret the product in the context of a real-world problem.</li> </ul> <p>Learning Goal: Interpret products of whole numbers as repeated addition and as the total number of objects (up to 100) in equal groups or arrays.</p> |
| <p>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.</p> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP1: Make sense of problems and persevere in solving them.</p> <p>MP4: Model with mathematics.</p> | <p>Concept(s):</p> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ multiply to solve word problems involving equal groups and arrays.</li> <li>➤ divide to solve word problems involving equal groups and arrays.</li> <li>➤ represent a word problem with a drawing showing equal groups, arrays, equal shares, and/or total objects.</li> <li>➤ represent a word problem with an</li> </ul>                       |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                          | <p>equation.</p> <p>Learning Goal: Use multiplication and division within 100 to solve word problems by modeling equal groups or arrays and by writing equations to represent equal groups or arrays.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>3.OA.B.5. Apply properties of operations as strategies to multiply and divide.<br/>examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known. (Commutative property of multiplication.) <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math>, then <math>15 \times 2 = 30</math>, or by <math>5 \times 2 = 10</math>, then <math>3 \times 10 = 30</math>. (Associative property of multiplication.) 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>. (Distributive property.)</p> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP6 Attend to precision.</p> <p>MP7: Look for and make use of structure.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ properties are rules about relationships between numbers.</li> <li>➤ changing the order of factors does not change the result of multiplication.</li> <li>➤ changing the order of numbers does change the result of division.</li> <li>➤ area models can be used to represent the distributive property.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ multiply whole numbers using the commutative property as a strategy.</li> <li>➤ multiply whole numbers using the associative property as a strategy.</li> <li>➤ <math>a \times b</math> and <math>a \times c</math>.</li> </ul> |

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|                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                               | <p>➤ multiply whole numbers using the distributive property as a strategy.</p> <p>Learning Goal: Multiply one-digit whole numbers by applying the properties of operations (commutative, associative, and distributive properties)</p>                                                                      |
| <p>3.OA.C.7. With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers</p> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP 2 Reason abstractly and quantitatively.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p> | <p>Concept(s): No new concept(s) introduced</p> <p>Students are able to:</p> <p>➤ multiply and divide <u>within 40</u> with accuracy and efficiency.</p> <p>Learning Goal: Fluently multiply and divide <u>within 40</u> using strategies such as the relationship between multiplication and division.</p> |
| <p>3.NBT.A.3. Multiply one-digit whole numbers by multiples of 10 in the range 10 to 90 (e.g., <math>9 \times 80</math>, <math>5 \times 60</math>) using strategies based on place value and properties of operations.</p>                                                                                                                                      | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP7: Look for and make use of structure.</p>                                 | <p>Concept(s):</p> <p>➤ Multiples of 10 can be represented as a specific number of groups of ten.</p> <p>Students are able to:</p> <p>➤ multiply to determine the total number of groups of ten.</p> <p>➤ multiply one-digit whole numbers by multiples of 10.</p>                                          |

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|                                                                                                                                                                                                                                                                                                                                                                   | MP8: Look for and express regularity in repeated reasoning.                                                                                                                                 | Learning Goal: Multiply one digit whole numbers by multiples of 10 (10-90).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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 | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP6: Attend to precision.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Division is a means of finding equal groups of objects.</li> <li>➤ Division gives the same result as repeated subtraction.</li> <li>➤ Quotient of two whole numbers is the number of objects in each share when objects are grouped equally into shares.</li> <li>➤ Quotient of two whole numbers is the number of shares when objects are grouped into equal shares of objects.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ interpret division of whole numbers as a number of equal shares or the number of groups when objects are divided equally.</li> <li>➤ use repeated subtraction to find</li> </ul> |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                | <p>the number of shares or the number of groups and compare to the result of division.</p> <ul style="list-style-type: none"> <li>➤ describe a context in which the number of shares or number of groups is represented with division.</li> <li>➤ interpret the quotient in the context of a real-world problem.</li> </ul> <p>Learning Goal: Interpret the quotient as a set of objects (up to 100) partitioned equally into a number of shares and as the number of equal shares.</p> |
| <p>3.OA.A.4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations <math>8 \times ? = 48</math>, <math>5 = \div 3</math>, <math>6 \times 6 = ?</math>.</p> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP 2 Reason abstractly and quantitatively.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP7: Look for and make use of structure.</p> <p>MP8: Look for and express regularity in repeated reasoning.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Equal sign indicates that the value of the numerical expressions on each side are the same.</li> <li>➤ Unknown in an equation ( <math>4 \times \underline{\quad} = 20</math> and <math>20 = ? \times 4</math> ) represents a number.</li> <li>➤ Unknown can be in different positions.</li> </ul>                                                                                                                           |

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|                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                | <p>➤ Letters can represent numbers in equations.</p> <p>Students are able to:</p> <p>➤ determine which operation is needed to find the unknown.</p> <p>➤ multiply or divide, within 100, to find the unknown whole number in a multiplication or division equation.</p> <p>Learning Goal: Determine the unknown in a division or multiplication equation relating 3 whole numbers (within 100).</p> |
| 3.OA.D.9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP 2 Reason abstractly and quantitatively.</p> <p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP8: Look for and express regularity in repeated reasoning.</p> | <p>Concept(s):</p> <p>➤ Addition and multiplication tables reveal arithmetic patterns.</p> <p>➤ Patterns may be related to whether a number is even or odd.</p> <p>➤ Patterns exist in rows, columns and diagonals of addition tables and multiplication tables.</p> <p>➤ Decomposing numbers into equal addends may reveal patterns.</p>                                                           |

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|  |  |                                                                                                                                                                                                                                                                                                                     |
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|  |  | <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ explain arithmetic patterns using properties of operations.</li> </ul> <p>Learning Goal: Recognize arithmetic patterns, including patterns in addition or multiplication tables, and explain the patterns using properties of operations.</p> |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**New Jersey Student Learning Standards: Interdisciplinary Connections**

**Reading/Language Arts**

SL.PE.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.

- A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- B. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- C. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- D. Explain their own ideas and understanding in light of the discussion.

SL.II.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL.ES.3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

SL.AS.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

W.IW.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- A. Introduce a topic clearly.
- B. Develop the topic with facts, definitions, and concrete details, text evidence, or other information and examples related to the topic.
- C. Include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.

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- D. Link ideas within sections of information using transition words and phrases (e.g., then, because, also, another, therefore).
- E. Provide a conclusion related to the information or explanation presented.

W.WP.3.4. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

- A. Identify audience, purpose, and intended length of composition before writing.
- B. Consider writing as a process, including self-evaluation, revision and editing.
- C. With adult and peer feedback, and digital or print tools such as a dictionary, thesaurus, and/or spell checker, find and correct errors and improve word choice.

W.RW.3.7. Engage in independent and task-based writing for both short and extended periods of time, producing written work routinely.

L.RF.3.4. Read with sufficient accuracy and fluency to support comprehension.

- A. Read grade-level text with purpose and understanding.
- B. Read grade-level text orally with accuracy, appropriate rate, and expression.
- C. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

**New Jersey Student Learning Standards: [Career Readiness, Life Literacies, and Key Skills Articulation Guide](#)**

| <b>Core Ideas</b>                                                                                                                           | <b>Performance Expectations (Identified with Standard Number and statement)</b>                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills. | 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).                                                      |
| The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.             | 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).<br><br>9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems. |
| Different digital tools have different purposes.                                                                                            | 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.                                                                                               |

**New Jersey Student Learning Standards: [Computer Science and Design Thinking Articulation Guide](#)**

| <b>Core Ideas</b>                                                           | <b>Performance Expectations (Identified with Standard Number and Statement)</b>                         |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Data can be organized, displayed, and presented to highlight relationships. | 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim. |
| Individuals can select,                                                     | 8.1.5.DA.3: Organize and present collected data visually to                                             |



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|                                                                                                                       |                                                                                                                   |
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| organize, and transform data into different visual representations and communicate insights gained from the data.     | communicate insights gained from different views of the data.                                                     |
| Different algorithms can achieve the same result. Some algorithms are more appropriate for a specific use than others | 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate. |

**New Jersey Student Learning Standards: [Climate Change Mandate](#)**

| Core Ideas                                                                                                                                | Performance Expectations (Identified with Standard Number and Statement)                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data. | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. |

**Knowledge and Skills**

**Unit Learning Targets (Objectives):**  
*Students will be able to...*

**Content Objectives:**

- Understand multiplication as finding the total number of items in equal-sized groups.
- Interpret multiplication problems using pictures, objects, words, numbers, and equations.
- Recognize the multiplication symbol ( $\times$ ) as meaning “groups of,” and interpret multiplication expressions like  $5 \times 7$  as “5 groups of 7.”
- Use repeated addition and skip-counting as strategies to find products, while understanding the core meaning of multiplication.
- Use models such as arrays and equal groups to solve multiplication problems with 0, 1, 2, 5, and 10.
- Break apart one factor to make multiplying easier using the distributive property of multiplication.
- Use the commutative property to reverse factors and still get the same product.
- Use the associative property to group three or more factors in different ways to find the same product.
- Apply the distributive, commutative, and associative properties of multiplication to develop multiplication strategies.

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- Multiply a one-digit number by multiples of 10 using place-value understanding and properties of operations.
- Describe and recognize patterns in multiplication with one-digit numbers and multiples of 10.
- Understand division as sharing equally or making equal groups.
- Use division expressions to represent real-world scenarios.
- Recognize and use the relationship between multiplication and division to form fact families.
- Solve for unknown numbers in multiplication and division equations using related facts.
- Fluently multiply and divide within 100.
- Use equations with an unknown number in any position to solve multiplication and division word problems.
- Use hundred charts, addition tables, and multiplication tables to explore and describe number patterns.
- Use properties of operations and patterns in numbers (such as even and odd) to explain why patterns make sense.

**Language Objectives:**

- Draw arrays to represent multiplication equations and demonstrate multiplication properties.
- Write multiplication equations using the  $\times$  symbol and explain what each part represents.
- Describe real-world problem situations using multiplication and division vocabulary.
- Use key vocabulary such as array, factor, multiplication, multiply, product, and times to communicate clearly.
- Write and interpret multiplication facts for 0, 1, 2, 5, and 10, including expressions with "groups of 0."
- Make generalizations about multiplying with 0 and 1.
- Use parentheses correctly to write and explain expressions that involve multiple operations.
- Record and explain the steps for multiplying a one-digit number by a multiple of 10.
- Read the division symbol ( $\div$ ) as "divided by" and explain division as equal sharing or grouping.
- Write and explain division equations, including real-world contexts for each.
- Use multiplication and division fact families to solve for unknown numbers in equations.
- Write related multiplication and division facts to solve word problems with missing numbers.
- Use math terms such as array, divide, divided by, times, factor, product, and quotient to explain thinking.
- Describe and explain number patterns using vocabulary like pattern, rule, even number, and odd number.

**Unit Enduring Understandings:**

*Students will know...*

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- Multiplication is a way to combine equal groups, and division is a way to separate a total into equal groups.
- Understanding equal groups helps you solve both multiplication and division problems.
- There are many strategies and models, like breaking apart factors, that can help you multiply more fluently.
- You can multiply numbers in any order, and you can use place value to help multiply more efficiently.

**Unit Essential Questions:**

- How does dividing help you find the number of groups or how many are in each group?
- How can understanding equal groups help you solve multiplication and division problems?
- How does breaking apart factors help you become more fluent with multiplication?
- How can place value help you multiply numbers more easily?

**Instructional Plan**

*Ready Classroom Mathematics* uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

**Whole Group Instruction**

- Session Activities
  - Explore--Students draw on prior knowledge and make connections to new concepts
  - Develop--Students develop strategies and understanding through problem solving and discourse
  - Refine--Students deepen their understanding and strengthen their skills
- What Happens In the Classroom
  - Students make sense of problems and attempt their own representations and solution strategies.
  - Hints are provided to students in the form of questions to consider as they solve each problem
  - Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
  - Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
  - The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.

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- Whole group discussion allows for students to show their thinking
- Try-Discuss Connect Routine
  - Try
    - Make sense of the problem
    - Solve and support your thinking
  - Discuss
    - Share your thinking with a partner
    - Compare Strategies
  - Connect
    - Make connections and reflect on what you have learned
    - Apply your thinking to a new problem
- Resources:
  - Ready Classroom Teacher Toolkit
    - Instruction and Practice
      - Editable Powerpoint
      - Interactive Tutorial
      - Student Worktext
      - Discourse Cards
      - Digital Manipulatives
      - Math Journal
      - Lesson Vocabulary Activities
      - Unit Game
      - Exit Ticket

Small Group Differentiation

- Prepare
  - Ready Prerequisite Lessons
- Reteach
  - Tools for Instruction
- Reinforce
  - Differentiated Math Center Activities
- Extend
  - Enrichment Activities

Independent Learning

- iReady online personalized instruction generated from iReady Diagnostic assessment
- Fluency and skills practice
- Interactive Tutorials (Lesson, Prerequisite, or Extend)
- Math Center Activities
- Additional Practice Activities
- Online Fluency Games

| Mathematical Practice         | Habit          |
|-------------------------------|----------------|
| Make sense of the problem and | Solve problems |

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|                                                                 |                            |
|-----------------------------------------------------------------|----------------------------|
| persevere in solving them                                       |                            |
| Reason abstractly and quantitatively                            | Think and reason           |
| Construct viable arguments and critique the reasoning of others | Show and explain           |
| Model with Mathematics                                          | Use math in the real world |
| Use appropriate tools strategically                             | Choose a tool              |
| Attend to precision                                             | Be clear and precise       |
| Look for and make use of structure                              | Zoom in and out            |
| Look for and express regularity in repeated reasoning           | Use patterns               |

**Evidence of Student Learning**

**Formative Assessments:**

- Teacher Observation
- Games
- Performance Assessment
- Anecdotal Records
- Exit Slips
- Oral Assessment/Conferencing
- Portfolios/Journals
- Daily Classwork
- Pre-Assessment

**Summative Assessments**

- Unit Tests
- Quizzes
- Writing Samples

**Benchmark Assessments:**

- Unit Assessments
- iReady Diagnostic

**Alternative Assessments**

- Portfolio review
- Anecdotal Notes

**Performance Tasks:**

- Project Based Learning Activity
- Math In Action

**Suggested Options for Differentiation and Modifications**

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### **Special Education**

- Follow all IEP modifications.
  - Provide visuals, graphic organizers, and manipulatives.
  - Pre-teach and review vocabulary and concepts.
  - Offer summaries, word banks, and visual glossaries.
  - Use leveled texts and scaffolds for complex tasks.
  - Provide small-group guided instruction.
  - Use peer tutoring or a supportive “buddy.”
  - Allow preferential seating.
  - Give extra time on tasks and assessments.
  - Accept oral or dictated responses.
  - Shorten or adjust the number and types of questions.
  - Provide large-print, Braille, or digital text with audio supports.
  - Use scribes or communication devices when needed.
- 

### **Students with 504 Plans**

- Follow the 504 plan.
  - Provide extra time for assignments/tests.
  - Offer small-group settings.
  - Accept oral or dictated responses.
  - Provide large-print, Braille, or digital text.
  - Allow use of a scribe or communication device.
- 

### **Students at Risk of School Failure**

- Use visuals and hands-on supports.
  - Pre-teach vocabulary and key concepts.
  - Provide small-group instruction and guided practice.
  - Read aloud directions; model steps.
  - Assign peer tutors or partners.
  - Offer preferential seating.
  - Break down multi-step tasks into smaller parts.
- 

### **Gifted and Talented**

- Ask open-ended, higher-order questions (analyze, evaluate, create).
- Use “why” and “what if” prompts to deepen thinking.
- Provide extension activities based on interests.

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- Offer advanced reading lists or enrichment projects.
  - Group flexibly by ability, interest, or project choice.
  - Use organizers, puzzles, and independent research tasks.
  - Provide options and choice in assignments.
  - Encourage participation in simulations and problem-solving challenges.
  - Include opportunities for reflection and debriefing.
- 

### **Multilingual Learners**

- Collaborate with ESL/MLL specialists.
  - Provide small-group instruction with language scaffolds.
  - Pre-teach vocabulary; label classroom items and visuals.
  - Use visual glossaries, cognates, and graphic organizers.
  - Offer sentence frames and speaking supports.
  - Allow oral responses and extra time on assignments.
  - Provide audio books, recorded directions, or read-aloud support.
- 

### **Diversity and Inclusion**

- Respect and incorporate cultural traditions.
- Provide alternative assignments when appropriate.
- Use visuals and clear, direct language.
- Collaborate with language and support staff.
- Maintain a structured, inclusive classroom environment.
- Build strong connections with families and caregivers.

## **Supplemental Resources**

### **Instructional Materials**

- Ready Math Interactive Tutorials
- Ready Math Textbook

### **Supplemental Materials**

- Task Cards
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources

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- edPuzzle
- Nearpod

Intervention Materials

- Task Cards
- Dice/Card Games
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- Ready Tools for Instruction

| OCEAN ACADEMY CHARTER SCHOOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |
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| Unit 3 Overview                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |
| Content Area: Mathematics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |
| Unit Title: Unit 3: Multiplication (Trimester 2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Duration: 30 Days |
| Target Course/Grade Level: Grade 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |
| <p style="text-align: center;"><b>Introduction/Unit Focus:</b></p> <p>This unit builds on students' understanding of multiplication and division, emphasizing the properties of multiplication and the relationship between these two operations. Students will deepen their skills by multiplying and dividing within 100 and applying these operations to solve real-world problems involving measurement and estimation. Key areas of focus include measuring intervals of time, liquid volumes, and masses of objects. The unit also introduces geometric measurement concepts, particularly area, and helps students relate area to multiplication and addition through hands-on activities and problem solving.</p> <p>Students will explore how to find the area of various shapes, including rectangles and composite figures, by tiling and by multiplying. They will learn to break down complex shapes into simpler rectangles and add the areas to find the total, linking this understanding to the distributive property of multiplication. Alongside geometric measurement, students will use all four operations: addition, subtraction, multiplication, and division to solve one- and two-step word problems. The unit integrates data analysis as well, guiding students to represent and interpret data using picture graphs and bar graphs, and to use these tools to solve problems.</p> <p>To prepare for this unit, students should have foundational knowledge of basic multiplication facts and understand how to partition rectangles into equal-sized squares to measure area in square units. They should be familiar with polygons and the properties of squares, and be able to recall and apply multiplication facts fluently. This prior knowledge supports their</p> |                   |



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ability to understand the connection between arrays, equal groups, and area. Throughout the unit, students will strengthen their number sense by rounding whole numbers to the nearest ten and hundred, and by modeling operations using various representations. They will also build skills in interpreting and creating graphs, which will support their data analysis and problem-solving abilities. This comprehensive approach prepares students to confidently apply arithmetic operations to a variety of mathematical contexts and real-life situations.

### Disciplinary Concepts for the Unit

#### Standard 9.1 Personal Financial Literacy

This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

#### Standard 9.2 Career Awareness, Exploration, Preparation and Training

This standard outlines the importance of being knowledgeable about one's interests and talents, and being wML informed about postsecondary and career options, career planning, and career requirements.

#### Standard 9.4 Life Literacies and Key Skills

This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy\* that are critical for students to develop to live and work in an interconnected global economy.

#### Standard 8.1 Computer Science

Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

#### Standard 8.2 Design Thinking

Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

**Amistad Law: N.J.S.A. 18A 52:16A-88** Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

**Holocaust Law: N.J.S.A. 18A:35-28** Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens. .

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**Diversity and Inclusion:** C.18A:35-4.36a Curriculum to include instruction on diversity and inclusion.

The instruction shall:

- (1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;
- (2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and
- (3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

**Asian Americans and Pacific Islanders (AAPI)**

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLs) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

**21st Century Themes and Skills**

“Twenty-first century themes and skills” means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy.”

**Content Statements:**

This unit introduces students to area and other applications of multiplication.

**Standards/Learning Targets:** New Jersey Student Learning Standards for Mathematics, Reading/Language Arts, Technology

**Focus Standards (Major Standards)** <https://www.nj.gov/education/cccs/>

| Content Standards                                                                                                                                                                                                        | Suggested Mathematical Practices                                     | Critical Knowledge & Skills                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------|
| 3.DL.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 | *SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the | Concept(s):<br>➤ Graphs organize information and contain labels. |

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| <p>bar graphs. <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i></p>                                                                                                                                                                                                                                                                                                                                                   | <p>Try-Discuss-Connect routine.</p> <p>MP1: Make sense of problems and persevere in solving them.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP6: Attend to precision.</p> <p>MP7: Look for and make use of structure.</p> | <ul style="list-style-type: none"> <li>➤ Pictures and bars can represent numbers in graphs.</li> <li>➤ Different graphs may display different scales.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ draw scaled picture graphs.</li> <li>➤ draw scaled bar graphs.</li> <li>➤ analyze, interpret and create bar graphs and pictographs in real world situations.</li> <li>➤ solve “how many more” and “how many less” problems using scaled bar graphs.</li> </ul> <p>Learning Goal: Draw scaled picture and scaled bar graphs to represent data with several categories. Solve one and two-step word problems using scaled bar graphs.</p> |
| <p>3.M.B.3. Recognize area as an attribute of plane figures and understand concepts of area measurement.</p> <ol style="list-style-type: none"> <li>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.</li> <li>b. A plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units.</li> </ol> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP6: Attend to precision.</p>                                                                                 | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Area is the amount of space inside the boundary of a (closed) figure.</li> <li>➤ 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.</li> <li>➤ Plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units area can be found by covering a figure with unit squares.</li> </ul>                                                                                                                                                              |

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|                                                                                                                      |                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>➤ Area of a figure can be determined using unit squares of other dimensions.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ count unit squares in order to measure the area of a figure.</li> <li>➤ use unit squares of centimeters, meters, inches, feet, and other units to measure area.</li> </ul> <p>Learning Goal : Measure areas by counting unit squares (<math>\text{cm}^2</math>, <math>\text{m}^2</math>, <math>\text{in}^2</math>, <math>\text{ft}^2</math>, and improvised units).</p>                            |
| 3.M.B.4. Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units). | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP6: Attend to precision.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Area is the amount of space inside the boundary of a (closed) figure.</li> <li>➤ 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.</li> <li>➤ Plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units area can be found by covering a figure with unit squares.</li> <li>➤ Area of a figure can be determined using unit squares of other dimensions.</li> </ul> |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ count unit squares in order to measure the area of a figure.</li> <li>➤ use unit squares of centimeters, meters, inches, feet, and other units to measure area.</li> </ul> <p>Learning Goal : Measure areas by counting unit squares (<math>\text{cm}^2</math>, <math>\text{m}^2</math>, <math>\text{in}^2</math>, <math>\text{ft}^2</math>, and improvised units).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p>3.M.B.5 Relate area to the operations of multiplication and addition.</p> <ol style="list-style-type: none"> <li>a. 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.</li> <li>b. 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.</li> <li>c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths <math>a</math> and <math>b + c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>. Use area models to represent the distributive</li> </ol> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP1: Make sense of problems and persevere in solving them.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP7: Look for and make use of structure.</p> <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP8: Look for and express regularity in repeated reasoning.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Properties are rules about relationships between numbers.</li> <li>➤ Changing the order of factors does not change the result of multiplication.</li> <li>➤ Changing the order of numbers does change the result of division.</li> <li>➤ Area of a rectangle with whole-number side lengths <math>a</math> and <math>b + c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>.</li> <li>➤ Area models can be used to represent the distributive property.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ multiply whole numbers using the commutative property as a strategy.</li> <li>➤ multiply whole numbers using the associative property as a strategy.</li> <li>➤ use tiling to show that the area of a rectangle with whole-number side lengths <math>a</math> and <math>b + c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>.</li> </ul> |

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| <p>property in mathematical reasoning.</p> <p>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.</p> |                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>➤ multiply whole numbers using the distributive property as a strategy.</li> </ul> <p>Learning Goal: Multiply one-digit whole numbers by applying the properties of operations (commutative, associative, and distributive properties).</p> <p>Learning Goal: Use tiling and an area model to represent the distributive property.</p>                                                                                                                                                                                                                                                                                                                                                             |
| <p>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.</p>               | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP7: Look for and make use of structure.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Area models can be used to represent the distributive property.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ multiply to solve word problems involving equal groups and arrays.</li> <li>➤ divide to solve word problems involving equal groups and arrays.</li> <li>➤ represent a word problem with a drawing showing equal groups, arrays, equal shares, and/or total objects.</li> <li>➤ represent a word problem with an equation.</li> </ul> <p>Learning Goal: Use multiplication and division within 100 to solve word problems by modeling equal groups or arrays and by writing equations to represent equal groups or arrays</p> |
| <p>3.OA.D.8 Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the</p>                                                               | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p>                                                                                                                                                                                        | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Letters or symbols in an equation represent an unknown quantity.</li> </ul> <p>Students are able to:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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| reasonableness of answers using mental computation and estimation strategies including rounding. | <p>MP1: Make sense of problems and persevere in solving them.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> | <ul style="list-style-type: none"> <li>➤ represent the solution to two-step word problems with equations.</li> <li>➤ use a symbol to represent an unknown in an equation.</li> <li>➤ use rounding as an estimation strategy.</li> <li>➤ explain, using an estimation strategy, whether an answer is reasonable.</li> </ul> <p>Learning Goal: Write equations when solving two-step word problems, using a symbol for an unknown; find the value of an unknown in an equation involving any of the four operations and use estimation strategies to assess the reasonableness of answers.</p> |
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**New Jersey Student Learning Standards: Interdisciplinary Connections  
(Reading/Language Arts and Technology)**

**Reading/Language Arts**

SL.PE.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.

- A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- B. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- C. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- D. Explain their own ideas and understanding in light of the discussion.

SL.II.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL.ES.3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

SL.AS.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

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- W.IW.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- A. Introduce a topic clearly.
  - B. Develop the topic with facts, definitions, and concrete details, text evidence, or other information and examples related to the topic.
  - C. Include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.
  - D. Link ideas within sections of information using transition words and phrases (e.g., then, because, also, another, therefore).
  - E. Provide a conclusion related to the information or explanation presented.
- W.WP.3.4. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- A. Identify audience, purpose, and intended length of composition before writing.
  - B. Consider writing as a process, including self-evaluation, revision and editing.
  - C. With adult and peer feedback, and digital or print tools such as a dictionary, thesaurus, and/or spell checker, find and correct errors and improve word choice.
- W.RW.3.7. Engage in independent and task-based writing for both short and extended periods of time, producing written work routinely.
- L.RF.3.4. Read with sufficient accuracy and fluency to support comprehension.
- A. Read grade-level text with purpose and understanding.
  - B. Read grade-level text orally with accuracy, appropriate rate, and expression.
  - C. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

**New Jersey Student Learning Standards: [Career Readiness, Life Literacies, and Key Skills Articulation Guide](#)**

| Core Ideas                                                                                                                                  | Performance Expectations (Identified with Standard Number and statement)                                                                                                                                                               |
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| Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills. | 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).                                                      |
| The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.             | 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).<br><br>9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems. |
| Different digital tools have different purposes.                                                                                            | 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.                                                                                               |

**New Jersey Student Learning Standards: [Computer Science and Design Thinking](#)**



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| <u>Articulation Guide</u>                                                                                                                 |                                                                                                                           |
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| Core Ideas                                                                                                                                | Performance Expectations (Identified with Standard Number and Statement)                                                  |
| Data can be organized, displayed, and presented to highlight relationships.                                                               | 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.                   |
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data. | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. |
| Different algorithms can achieve the same result. Some algorithms are more appropriate for a specific use than others                     | 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.         |

| New Jersey Student Learning Standards: <u>Climate Change Mandate</u>                                                                      |                                                                                                                           |
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| Core Ideas                                                                                                                                | Performance Expectations (Identified with Standard Number and Statement)                                                  |
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data. | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. |

| Knowledge and Skills                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <p><b>Unit Learning Targets (Objectives):</b><br/> <i>Students will be able to...</i></p> <p><b>Content Objectives:</b></p> <ul style="list-style-type: none"> <li>➤ Understand that area is measured using square units and that square units can come in different sizes such as square centimeters, square inches, square meters, and square feet.</li> <li>➤ Measure the area of rectangles and other shapes by covering them with square units and counting the total number of units.</li> <li>➤ Apply the area formula (length × width) for rectangles to solve mathematical and real-world problems.</li> <li>➤ Use area models and the distributive property to find the area of combined rectangles.</li> <li>➤ Decompose rectilinear shapes into smaller rectangles, find individual areas, and combine them to find the total area.</li> </ul> |

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- Understand that area is additive and can be found by summing smaller parts.
- Solve multiplication and division word problems using equal groups, arrays, and area representations.
- Represent and solve two-step word problems using all four operations (addition, subtraction, multiplication, and division).
- Use equations with a variable to represent unknown values in one- and two-step problems.
- Assess the reasonableness of solutions using estimation.
- Interpret and solve one- and two-step problems using data displayed in picture graphs and bar graphs.
- Recognize and use graphs with a scale greater than one to determine quantities.
- Draw and label scaled bar graphs and picture graphs based on given data.

**Language Objectives:**

- Record and label the number of square units when measuring or calculating area.
- Draw rectangles and non-rectangular shapes with a given area using square units.
- Use and define key math terms such as *area* and *square unit* when explaining how area is measured.
- Write equations to represent the area of rectangles and label them with the appropriate square units.
- Draw diagrams or models to solve word problems involving area, multiplication, and division.
- Break apart shapes and explain how each part contributes to the total area.
- Explain how diagrams and equations represent multiplication or division word problems.
- Use variables in equations and explain their meaning in context.
- Summarize and explain the steps used to solve two-step problems, including which operations are used.
- Compare problem-solving strategies with peers and explain how different approaches are connected.
- Restate and interpret keys in picture graphs.
- Read and interpret data from tables and graphs, including those with a scale greater than 1.
- Use multiplication to analyze scaled graphs and determine total quantities.
- Use key vocabulary terms such as *bar graph*, *picture graph*, *scale*, *key*, and *data* when describing and analyzing graphs.

**Unit Enduring Understandings:**

*Students will know...*

- Area measures the space inside a shape.
- You can use multiplication to find the area of rectangles and combine areas to find the total area of more complex shapes.
- Arrays can help you model and solve multiplication and division problems.
- Graphs can use a scale greater than 1, and understanding multiplication helps you read

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and solve problems using scaled data.

**Unit Essential Questions:**

- How can arrays help you model and solve multiplication and division problems?
- How can you use multiplication to find the area of a rectangle?
- How can you find the area of a shape made up of smaller rectangles?
- How does understanding multiplication help you read and solve problems using a graph with a scale greater than 1?

**Instructional Plan**

*Ready Classroom Mathematics* uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

**Whole Group Instruction**

- Session Activities
  - Explore--Students draw on prior knowledge and make connections to new concepts
  - Develop--Students develop strategies and understanding through problem solving and discourse
  - Refine--Students deepen their understanding and strengthen their skills
- What Happens In the Classroom
  - Students make sense of problems and attempt their own representations and solution strategies.
  - Hints are provided to students in the form of questions to consider as they solve each problem
  - Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
  - Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
  - The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
  - Whole group discussion allows for students to show their thinking
- Try-Discuss Connect Routine
  - Try
    - Make sense of the problem
    - Solve and support your thinking
  - Discuss
    - Share your thinking with a partner

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- Compare Strategies
- Connect
  - Make connections and reflect on what you have learned
  - Apply your thinking to a new problem
- Resources:
  - Ready Classroom Teacher Toolkit
    - Instruction and Practice
      - Editable Powerpoint
      - Interactive Tutorial
      - Student Worktext
      - Discourse Cards
      - Digital Manipulatives
      - Math Journal
      - Lesson Vocabulary Activities
      - Unit Game
      - Exit Ticket

Small Group Differentiation

- Prepare
  - Ready Prerequisite Lessons
- Reteach
  - Tools for Instruction
- Reinforce
  - Differentiated Math Center Activities
- Extend
  - Enrichment Activities

Independent Learning

- iReady online personalized instruction generated from iReady Diagnostic assessment
- Fluency and skills practice
- Interactive Tutorials (Lesson, Prerequisite, or Extend)
- Math Center Activities
- Additional Practice Activities
- Online Fluency Games

| Mathematical Practice                                           | Habit                      |
|-----------------------------------------------------------------|----------------------------|
| Make sense of problems and persevere in solving them            | Solve problems             |
| Reason abstractly and quantitatively                            | Think and reason           |
| Construct viable arguments and critique the reasoning of others | Show and explain           |
| Model with Mathematics                                          | Use math in the real world |

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|                                                       |                      |
|-------------------------------------------------------|----------------------|
| Use appropriate tools strategically                   | Choose a tool        |
| Attend to precision                                   | Be clear and precise |
| Look for and make use of structure                    | Zoom in and out      |
| Look for and express regularity in repeated reasoning | Use patterns         |

### Evidence of Student Learning

**Formative Assessments:**

- Teacher Observation
- Games
- Performance Assessment
- Anecdotal Records
- Exit Slips
- Oral Assessment/Conferencing
- Portfolios/Journals
- Daily Classwork
- Pre-Assessment

**Summative Assessments**

- Unit Tests
- Quizzes
- Writing Samples

**Benchmark Assessments:**

- Unit Assessments
- iReady Diagnostic

**Alternative Assessments**

- Portfolio review
- Anecdotal Notes

**Performance Tasks:**

- Project Based Learning Activity
- Math In Action

### Suggested Options for Differentiation and Modifications

**Special Education**

- Follow all IEP modifications.
- Provide visuals, graphic organizers, and manipulatives.
- Pre-teach and review vocabulary and concepts.
- Offer summaries, word banks, and visual glossaries.
- Use leveled texts and scaffolds for complex tasks.

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- Provide small-group guided instruction.
  - Use peer tutoring or a supportive “buddy.”
  - Allow preferential seating.
  - Give extra time on tasks and assessments.
  - Accept oral or dictated responses.
  - Shorten or adjust the number and types of questions.
  - Provide large-print, Braille, or digital text with audio supports.
  - Use scribes or communication devices when needed.
- 

#### **Students with 504 Plans**

- Follow the 504 plan.
  - Provide extra time for assignments/tests.
  - Offer small-group settings.
  - Accept oral or dictated responses.
  - Provide large-print, Braille, or digital text.
  - Allow use of a scribe or communication device.
- 

#### **Students at Risk of School Failure**

- Use visuals and hands-on supports.
  - Pre-teach vocabulary and key concepts.
  - Provide small-group instruction and guided practice.
  - Read aloud directions; model steps.
  - Assign peer tutors or partners.
  - Offer preferential seating.
  - Break down multi-step tasks into smaller parts.
- 

#### **Gifted and Talented**

- Ask open-ended, higher-order questions (analyze, evaluate, create).
- Use “why” and “what if” prompts to deepen thinking.
- Provide extension activities based on interests.
- Offer advanced reading lists or enrichment projects.
- Group flexibly by ability, interest, or project choice.
- Use organizers, puzzles, and independent research tasks.
- Provide options and choice in assignments.
- Encourage participation in simulations and problem-solving challenges.
- Include opportunities for reflection and debriefing.

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### **Multilingual Learners**

- Collaborate with ESL/MLL specialists.
  - Provide small-group instruction with language scaffolds.
  - Pre-teach vocabulary; label classroom items and visuals.
  - Use visual glossaries, cognates, and graphic organizers.
  - Offer sentence frames and speaking supports.
  - Allow oral responses and extra time on assignments.
  - Provide audio books, recorded directions, or read-aloud support.
- 

### **Diversity and Inclusion**

- Respect and incorporate cultural traditions.
- Provide alternative assignments when appropriate.
- Use visuals and clear, direct language.
- Collaborate with language and support staff.
- Maintain a structured, inclusive classroom environment.
- Build strong connections with families and caregivers.

## **Supplemental Resources**

### **Instructional Materials**

- Ready Math Interactive Tutorials
- Ready Math Textbook

### **Supplemental Materials**

- Task Cards
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- edPuzzle
- Nearpod

### **Intervention Materials**

- Task Cards
- Dice/Card Games

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- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- Ready Tools for Instruction

| OCEAN ACADEMY CHARTER SCHOOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |
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| Unit 4 Overview                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |
| Content Area: Mathematics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |
| Unit Title: Unit 4 Fractions (Trimester 2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Duration: 30 Days |
| Target Course/Grade Level: Grade 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |
| <p style="text-align: center;"><b>Introduction/Unit Focus:</b></p> <p>This unit focuses on developing students' understanding of fractions as numbers and their ability to represent and interpret data involving fractions. Students will learn to recognize fractions as equal parts of a whole and use number lines to represent fractions and locate fractional values. Emphasis is placed on understanding equivalent fractions, fractions that represent the same amount and correspond to the same point on a number line and on comparing fractions with the same numerator or denominator using symbols such as <math>&lt;</math>, <math>&gt;</math>, or <math>=</math>. Additionally, students will apply their measurement skills by measuring lengths to the nearest half or quarter inch and representing this data on a line plot.</p> <p>Students enter this unit with foundational knowledge of partitioning shapes like circles and rectangles into equal parts, using terms such as halves, thirds, and fourths to describe these parts and the whole. They understand that a fraction represents a whole divided into equal parts and that unit fractions are the basic building blocks of all fractions. Students have experience identifying fractions from models and number lines, and they recognize that the size of a fractional part depends on the size of the whole.</p> <p>Throughout the unit, students will deepen their ability to identify and explain equivalent fractions and use reasoning about unit fractions and numerators to compare fractions. They will also strengthen their understanding of the relationship between fractions and measurement by working with lengths and creating line plots to display fractional data. This comprehensive approach ensures that students gain a solid conceptual foundation in fractions as numbers, preparing them to apply this understanding across mathematical contexts.</p> |                   |
| Disciplinary Concepts for the Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |
| Standard 9.1 Personal Financial Literacy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |



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This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

**Standard 9.2 Career Awareness, Exploration, Preparation and Training**

This standard outlines the importance of being knowledgeable about one's interests and talents, and being wML informed about postsecondary and career options, career planning, and career requirements.

**Standard 9.4 Life Literacies and Key Skills**

This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy\* that are critical for students to develop to live and work in an interconnected global economy.

**Standard 8.1 Computer Science**

Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

**Standard 8.2 Design Thinking**

Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

**Amistad Law: N.J.S.A. 18A 52:16A-88** Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

**Holocaust Law: N.J.S.A. 18A:35-28** Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens. .

**Diversity and Inclusion: C.18A:35-4.36a** Curriculum to include instruction on diversity and inclusion.

The instruction shall:

- (1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;
- (2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and
- (3) encourage safe, welcoming, and inclusive environments for all students regardless

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of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

**Asian Americans and Pacific Islanders (AAPI)**

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

**21st Century Themes and Skills**

“Twenty-first century themes and skills” means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy.”

**Content Statements**

This unit introduces students to fractions.

**Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics, Reading/Language Arts, Technology**

**Focus Standards (Major Standards) <https://www.nj.gov/education/cccs/>**

| Content Standards                                                                                                                                                                                                                                                                                                                                                                         | Suggested Mathematical Practices                                                                                                                                                            | Critical Knowledge & Skills                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.NF.A.1. Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by $a$ parts of size $\frac{1}{b}$ . For example: If a rectangle (i.e. the whole) is partitioned into 3 equal parts, each part is $\frac{1}{3}$ . Two of those parts would be $\frac{2}{3}$ . | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP6: Attend to precision.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Wholes, when partitioned into equal parts, contain parts representing a unit fraction and each part is the same size.</li> <li>➤ Each part has the same name and represents a unit fraction (one-half, one-third, one-fourth, one-sixth, one-eighth).</li> <li>➤ The denominator is the total number of parts in the whole.</li> </ul> |

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|                                                                           |                                                   | <ul style="list-style-type: none"> <li>➤ The numerator is the number of parts in a given fraction.</li> <li>➤ Fraction <math>1/b</math> is the quantity formed by 1 part when a whole is partitioned into <math>b</math> equal parts.</li> <li>➤ Fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math> (e.g. <math>10/2</math> is 10 parts and each part is of size <math>1/2</math>).</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ partition rectangles, and other shapes, into halves, thirds, fourths, sixths and eighths.</li> <li>➤ identify the fractional name of each part.</li> <li>➤ model and explain that a fraction <math>a/b</math> is the quantity formed by <math>a</math> parts of size <math>1/b</math> (For example, <math>10/2</math> is 10 parts and each part is of size <math>1/2</math>).</li> </ul> <p>Learning Goal: Partition shapes into parts with equal areas and express the area of each part as a unit fraction; interpret the unit fraction <math>1/b</math> as the quantity formed by 1 of <math>b</math> equal parts of a whole and the fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math>.</p> |
| 3.NF.A.2. Understand a fraction as a number on the number line; represent | *SMP 1, 2, 3, 4, 5, and 6 are integrated in every | Concept(s):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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| <p>fractions on a number line diagram. For example, partition the number line from 0 to 1 into 3 equal parts, represent <math>\frac{1}{3}</math> on the number line and show that each part has a size <math>\frac{1}{3}</math>.</p> <p>3.NF.A.2a. Represent a fraction <math>\frac{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. Recognize that each part has size <math>\frac{1}{b}</math> and that the endpoint of the part based at 0 locates the number <math>\frac{1}{b}</math> on the number line.</p> <p>3.NF.A.2b. Represent a fraction <math>\frac{a}{b}</math> on a number line diagram by marking off <math>a</math> lengths <math>\frac{1}{b}</math> from 0. Recognize that the resulting interval has size <math>\frac{a}{b}</math> and that its endpoint locates the number <math>\frac{a}{b}</math> on the number line.</p> | <p>lesson through the Try-Discuss-Connect routine.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP6: Attend to precision.</p> <p>MP7: Look for and make use of structure.</p> | <ul style="list-style-type: none"> <li>➤ Fraction is a number and has its place on the number line.</li> <li>➤ When placing unit fractions on a number line, the space between 0 and 1 is the whole and must be partitioned into equal parts.</li> <li>➤ Each part of a whole has the same size (one-half, one-third, one-fourth, one-sixth or one-eighth).</li> <li>➤ Parts of the whole that begin at 0 and ends at <math>\frac{1}{b}</math> on the number line is the location of fraction <math>\frac{1}{b}</math> (one-half, one-third, one-fourth, one-sixth, or one-eighth).</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ partition a number line into parts of equal sizes between 0 and 1 (halves, thirds, fourths sixths and eighths).</li> <li>➤ plot unit fractions on the number line.</li> <li>➤ identify multiple parts (of length <math>\frac{1}{b}</math>) on the number line.</li> <li>➤ plot a fraction on the number line by marking off multiple parts of size <math>\frac{1}{b}</math>.</li> <li>➤ plot fractions equivalent to whole numbers including 0 and up to 5.</li> </ul> |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Learning Goal: Draw a number line depicting the position of <math>1/b</math> (with <math>b = 2, 3, 4, 6,</math> or <math>8</math>); represent the unit fraction <math>\frac{1}{4}</math> on the number line by partitioning the number line between 0 and 1 into 4 equal lengths and name the point at the end of the first length as the position of the unit fraction <math>\frac{1}{4}</math>; apply the same method for placing points <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>, <math>\frac{1}{6}</math>, and <math>\frac{1}{8}</math> on the number line.</p> <p>Learning Goal: Draw a number line depicting the position of fraction <math>a/b</math> (with <math>b = 2, 4, 3, 6,</math> or <math>8</math>, and including whole numbers up to 5).</p> |
| <p>3.NF.A.3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size</p> <p>3.NF.A.3a. Understand two fractions as equivalent (equal) if they are the same size. Understand two fractions as equivalent if they are located at the same point on a number line.</p> <p>3.NF.A.3b. Recognize and generate simple equivalent fractions by reasoning about their size, e.g., <math>\frac{1}{2} = \frac{2}{4}</math>, <math>\frac{4}{6} = \frac{2}{3}</math>. Explain why the fractions are equivalent, e.g., by using a visual fraction model.</p> <p>3.NF.A.3c. Express whole</p> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP6: Attend to precision.</p> <p>MP7: Look for and make use of structure.</p> <p>MP8: Look for and express regularity in repeated reasoning.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Comparing fractions, each referencing the same <i>whole</i>.</li> <li>➤ Fractions are equivalent if they are the same size.</li> <li>➤ Fractions are equivalent if they are at the same point on a number line.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ find equivalent fractions (limited to fractions with denominators 2, 3, 4, 6, and 8).</li> <li>➤ explain why two fractions are equivalent; use a visual fraction model to support explanation.</li> </ul>                                                                                                                                                                                                    |

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| <p>numbers as fractions, and recognize fractions that are equivalent to whole numbers. <i>Examples: Express 3 in the form <math>3 = 3/1</math>; recognize that <math>6/1 = 6</math>; locate <math>4/4</math> and 1 at the same point on a number line diagram.</i></p> <p>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 <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions, e.g., by using a visual fraction model with the support of a visual fraction model.</p> |  | <ul style="list-style-type: none"> <li>➤ write whole numbers as fractions.</li> <li>➤ identify fractions that are equivalent to whole numbers.</li> <li>➤ compare two fractions having the same numerator by reasoning about their size.</li> <li>➤ compare two fractions having the same denominator by reasoning about their size.</li> <li>➤ explain why comparing fractions that do not have the same whole is not valid (reason about their size and support reasoning with a model).</li> <li>➤ use <math>&lt;</math>, <math>=</math>, and <math>&gt;</math> symbols to write comparisons of fractions and justify conclusions with a visual fraction model.</li> </ul> <p>Learning Goal: Generate simple equivalent fractions, explain why they are equivalent, and support the explanation with visual fraction models; locate them on the number line.</p> <p>Learning Goal: Express whole numbers as fractions, identify fractions equivalent to whole numbers and locate them on the number line.</p> <p>Learning Goal: Compare two fractions having the same</p> |
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|                                                                                                                                                                                                                                                         |                                                                                                    | numerator; compare two fractions having the same denominator; reason about their size and use the symbols $>$ , $=$ , or $<$ to record the comparison.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3.DL.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. | <p>MP 2 Reason abstractly and quantitatively.</p> <p>MP.5 Use appropriate tools strategically.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Show measurements on a line plot displays the information in an organized way</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ measure length using rulers marked with inch, quarter inch and half inch</li> <li>➤ generate measurement data by measuring length and create a line plot of the data</li> <li>➤ accurately measure several small objects using a standard ruler and display findings on a line plot</li> <li>➤ display data on line plots with horizontal scales in whole numbers, halves, and quarters</li> </ul> <p>Learning Goal 2: Depict data measured in fourths and halves of an inch with a line plot with scales marked with appropriate units</p> |
| <b>New Jersey Student Learning Standards: Interdisciplinary Connections</b>                                                                                                                                                                             |                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Reading Language Arts</b>                                                                                                                                                                                                                            |                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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SL.PE.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.

- A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- B. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- C. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- D. Explain their own ideas and understanding in light of the discussion.

SL.II.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL.ES.3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

SL.AS.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

W.IW.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- A. Introduce a topic clearly.
- B. Develop the topic with facts, definitions, and concrete details, text evidence, or other information and examples related to the topic.
- C. Include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.
- D. Link ideas within sections of information using transition words and phrases (e.g., then, because, also, another, therefore).
- E. Provide a conclusion related to the information or explanation presented.

W.WP.3.4. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

- A. Identify audience, purpose, and intended length of composition before writing.
- B. Consider writing as a process, including self-evaluation, revision and editing.
- C. With adult and peer feedback, and digital or print tools such as a dictionary, thesaurus, and/or spell checker, find and correct errors and improve word choice.

W.RW.3.7. Engage in independent and task-based writing for both short and extended periods of time, producing written work routinely.

L.RF.3.4. Read with sufficient accuracy and fluency to support comprehension.

- A. Read grade-level text with purpose and understanding.
- B. Read grade-level text orally with accuracy, appropriate rate, and expression.
- C. Use context to confirm or self-correct word recognition and understanding, rereading



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| as necessary.                                                                                                                               |                                                                                                                                                                                                                                        |
| <b>New Jersey Student Learning Standards: <a href="#">Career Readiness, Life Literacies, and Key Skills Articulation Guide</a></b>          |                                                                                                                                                                                                                                        |
| <b>Core Ideas</b>                                                                                                                           | <b>Performance Expectations (Identified with Standard Number and statement)</b>                                                                                                                                                        |
| Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills. | 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).                                                      |
| The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.             | 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).<br><br>9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems. |
| Different digital tools have different purposes.                                                                                            | 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.                                                                                               |
| <b>New Jersey Student Learning Standards: <a href="#">Computer Science and Design Thinking Articulation Guide</a></b>                       |                                                                                                                                                                                                                                        |
| <b>Core Ideas</b>                                                                                                                           | <b>Performance Expectations (Identified with Standard Number and Statement)</b>                                                                                                                                                        |
| Data can be organized, displayed, and presented to highlight relationships.                                                                 | 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.                                                                                                                                |
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data.   | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.                                                                                                              |
| Different algorithms can achieve the same result. Some algorithms are more appropriate for a specific use than others                       | 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.                                                                                                                      |

|                                                                                      |                                                                                 |
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| <b>New Jersey Student Learning Standards: <a href="#">Climate Change Mandate</a></b> |                                                                                 |
| <b>Core Ideas</b>                                                                    | <b>Performance Expectations (Identified with Standard Number and Statement)</b> |

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Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data.

8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.

**Knowledge and Skills**

**Unit Learning Targets (Objectives):**

*Students will be able to...*

**Content Objectives:**

- Understand that a fraction represents a whole divided into equal parts.
- Recognize and identify the numerator and denominator as parts of a fraction.
- Understand unit fractions as the foundational building blocks of all fractions.
- Use area models and number lines to represent fractions that are less than, equal to, or greater than one.
- Represent and identify fractions on a number line, including those beyond one whole.
- Recognize and generate equivalent fractions using models and number lines.
- Understand that equivalent fractions represent the same value, size, or point on a number line.
- Create and write equivalent fractions for whole numbers.
- Compare fractions by reasoning about the size of the unit fractions (denominators) and the number of parts (numerators).
- Determine whether two fractions have the same numerators or the same denominators.
- Use area models and number lines to compare and justify which fraction is greater or less.
- Record and interpret comparison statements between fractions using the symbols  $<$ ,  $>$ , and  $=$ .
- Measure length using rulers marked to the nearest  $\frac{1}{2}$  inch and  $\frac{1}{4}$  inch.
- Display and interpret data collected from measurements using line plots.

**Language Objectives:**

- Write fractions based on shaded area models and use area models to visually represent fractions.
- Shade models to show a given unit fraction or a variety of other fractions.
- Accurately label fractions on a number line.
- Describe the relationship between a fraction's denominator and the number of equal parts in a whole or between whole numbers on a number line.
- Define and use key math vocabulary such as *fraction*, *numerator*, *denominator*, *unit fraction*, and *equivalent fraction* when explaining thinking to others.
- Create area models and number lines to represent and justify equivalent fractions.
- Write and explain equivalent fractions for values greater than one and for whole

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numbers.

- Use models and number lines to explain and compare fractions.
- Communicate comparisons using precise vocabulary such as *greater than*, *less than*, *numerator*, and *denominator*.
- Write and explain comparison statements using symbols ( $<$ ,  $>$ ,  $=$ ).
- Listen to others' reasoning about fractions and critique ideas using appropriate mathematical language.
- Record measurements in tables and use the data to label and analyze line plots.
- Read and interpret measurement data displayed in tables and line plots.

**Unit Enduring Understandings:**

*Students will know...*

- Fractions represent equal parts of a whole. Knowing how many equal parts there are helps you name the fraction.
- Fractions can be shown as points on a number line, which helps you compare them to whole numbers and other fractions.
- You can use fraction models and number lines to find equivalent fractions, or different names for the same value.
- Fractions can be compared when they have the same numerator or the same denominator.

**Unit Essential Questions:**

- How does understanding equal parts help you make sense of fractions?
- How can number lines help you compare fractions to whole numbers and other fractions?
- How can fraction models and number lines help you find equivalent fractions?
- How can you compare fractions that have the same numerator or the same denominator?

**Instructional Plan**

*Ready Classroom Mathematics* uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

**Whole Group Instruction**

- Session Activities
  - Explore--Students draw on prior knowledge and make connections to new concepts
  - Develop--Students develop strategies and understanding through problem solving and discourse

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- Refine--Students deepen their understanding and strengthen their skills
- What Happens In the Classroom
  - Students make sense of problems and attempt their own representations and solution strategies.
  - Hints are provided to students in the form of questions to consider as they solve each problem
  - Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
  - Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
  - The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
  - Whole group discussion allows for students to show their thinking
- Try-Discuss Connect Routine
  - Try
    - Make sense of the problem
    - Solve and support your thinking
  - Discuss
    - Share your thinking with a partner
    - Compare Strategies
  - Connect
    - Make connections and reflect on what you have learned
    - Apply your thinking to a new problem
- Resources:
  - Ready Classroom Teacher Toolkit
    - Instruction and Practice
      - Editable Powerpoint
      - Interactive Tutorial
      - Student Worktext
      - Discourse Cards
      - Digital Manipulatives
      - Math Journal
      - Lesson Vocabulary Activities
      - Unit Game
      - Exit Ticket

Small Group Differentiation

- Prepare
  - Ready Prerequisite Lessons
- Reteach
  - Tools for Instruction
- Reinforce
  - Differentiated Math Center Activities

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- Extend
  - Enrichment Activities

**Independent Learning**

- iReady online personalized instruction generated from iReady Diagnostic assessment
- Fluency and skills practice
- Interactive Tutorials (Lesson, Prerequisite, or Extend)
- Math Center Activities
- Additional Practice Activities
- Online Fluency Games

| Mathematical Practice                                           | Habit                      |
|-----------------------------------------------------------------|----------------------------|
| Make sense of the problem and persevere in solving them         | Solve problems             |
| Reason abstractly and quantitatively                            | Think and reason           |
| Construct viable arguments and critique the reasoning of others | Show and explain           |
| Model with Mathematics                                          | Use math in the real world |
| Use appropriate tools strategically                             | Choose a tool              |
| Attend to precision                                             | Be clear and precise       |
| Look for and make use of structure                              | Zoom in and out            |
| Look for and express regularity in repeated reasoning           | Use patterns               |

**Evidence of Student Learning**

**Formative Assessments:**

- Teacher Observation
- Games
- Performance Assessment
- Anecdotal Records
- Exit Slips
- Oral Assessment/Conferencing
- Portfolios/Journals
- Daily Classwork
- Pre-Assessment

**Summative Assessments**

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- Unit Tests
- Quizzes
- Writing Samples

**Benchmark Assessments:**

- Unit Assessments
- iReady Diagnostic

**Alternative Assessments**

- Portfolio review
- Anecdotal Notes

**Performance Tasks:**

- Project Based Learning Activity
- Math In Action

**Suggested Options for Differentiation and Modifications**

**Special Education**

- Follow all IEP modifications.
  - Provide visuals, graphic organizers, and manipulatives.
  - Pre-teach and review vocabulary and concepts.
  - Offer summaries, word banks, and visual glossaries.
  - Use leveled texts and scaffolds for complex tasks.
  - Provide small-group guided instruction.
  - Use peer tutoring or a supportive “buddy.”
  - Allow preferential seating.
  - Give extra time on tasks and assessments.
  - Accept oral or dictated responses.
  - Shorten or adjust the number and types of questions.
  - Provide large-print, Braille, or digital text with audio supports.
  - Use scribes or communication devices when needed.
- 

**Students with 504 Plans**

- Follow the 504 plan.
  - Provide extra time for assignments/tests.
  - Offer small-group settings.
  - Accept oral or dictated responses.
  - Provide large-print, Braille, or digital text.
  - Allow use of a scribe or communication device.
- 

**Students at Risk of School Failure**

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- Use visuals and hands-on supports.
  - Pre-teach vocabulary and key concepts.
  - Provide small-group instruction and guided practice.
  - Read aloud directions; model steps.
  - Assign peer tutors or partners.
  - Offer preferential seating.
  - Break down multi-step tasks into smaller parts.
- 

### **Gifted and Talented**

- Ask open-ended, higher-order questions (analyze, evaluate, create).
  - Use “why” and “what if” prompts to deepen thinking.
  - Provide extension activities based on interests.
  - Offer advanced reading lists or enrichment projects.
  - Group flexibly by ability, interest, or project choice.
  - Use organizers, puzzles, and independent research tasks.
  - Provide options and choice in assignments.
  - Encourage participation in simulations and problem-solving challenges.
  - Include opportunities for reflection and debriefing.
- 

### **Multilingual Learners**

- Collaborate with ESL/MLL specialists.
  - Provide small-group instruction with language scaffolds.
  - Pre-teach vocabulary; label classroom items and visuals.
  - Use visual glossaries, cognates, and graphic organizers.
  - Offer sentence frames and speaking supports.
  - Allow oral responses and extra time on assignments.
  - Provide audio books, recorded directions, or read-aloud support.
- 

### **Diversity and Inclusion**

- Respect and incorporate cultural traditions.
- Provide alternative assignments when appropriate.
- Use visuals and clear, direct language.
- Collaborate with language and support staff.
- Maintain a structured, inclusive classroom environment.
- Build strong connections with families and caregivers.

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**Supplemental Resources**

**Instructional Materials**

- Ready Math Interactive Tutorials
- Ready Math Textbook

**Supplemental Materials**

- Task Cards
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- edPuzzle
- Nearpod

**Intervention Materials**

- Task Cards
- Dice/Card Games
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- Ready Tools for Instruction

**OCEAN ACADEMY CHARTER SCHOOL**

Unit 5 Overview

**Content Area: Mathematics**

**Unit Title: Unit 5 Measurement (Trimester 3)**

**Duration: 16 Days**

**Target Course/Grade Level: Grade 3**

**Introduction/Unit Focus:**

This unit centers on solving problems related to measurement and estimation of time intervals, liquid volumes, and masses of objects, as well as developing an understanding of perimeter as a key attribute of plane figures. Students will deepen their skills in telling and writing time to the nearest minute using both digital and analog clocks, and apply this knowledge to solve practical problems involving time. They will also learn to estimate and



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solve problems involving liquid volume and mass, building a strong conceptual foundation in measurement across various contexts.

Prior to this unit, students have developed an understanding of the components of analog clocks and practiced telling time to the nearest five minutes, as well as using digital clocks. They have experience adding and subtracting two-digit numbers and counting by fives and ones, skills which support their work with time and measurement problems. Students have also explored measurable attributes, recognizing that objects can be measured by the amount of liquid they hold, and understand that measurement involves repeating consistent units. They have engaged in operations such as addition, subtraction, multiplication, and division, which are essential for solving measurement problems.

Furthermore, students recognize that larger measurement units can be subdivided into smaller, equivalent units, and understand the relationship between the size of a unit and the number of units needed to measure an object. This understanding enables them to approach problems flexibly, choosing appropriate units and methods for measurement. Through this unit, students will strengthen their ability to estimate and measure accurately while distinguishing between linear measures, such as perimeter, and area measures, deepening their understanding of geometric attributes and measurement concepts.

#### **Disciplinary Concepts for the Unit**

##### **Standard 9.1 Personal Financial Literacy**

This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

##### **Standard 9.2 Career Awareness, Exploration, Preparation and Training**

This standard outlines the importance of being knowledgeable about one's interests and talents, and being wML informed about postsecondary and career options, career planning, and career requirements.

##### **Standard 9.4 Life Literacies and Key Skills**

This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy\* that are critical for students to develop to live and work in an interconnected global economy.

##### **Standard 8.1 Computer Science**

Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

##### **Standard 8.2 Design Thinking**

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Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

**Amistad Law: N.J.S.A. 18A 52:16A-88** Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

**Holocaust Law: N.J.S.A. 18A:35-28** Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens. .

**Diversity and Inclusion: C.18A:35-4.36a** Curriculum to include instruction on diversity and inclusion.

The instruction shall:

- (1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;
- (2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and
- (3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

**Asian Americans and Pacific Islanders (AAPI)**

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

**21st Century Themes and Skills**

“Twenty-first century themes and skills” means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy.”

**Content Statements**

**This unit extends students' understanding of measurement.**

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| Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics, Reading/Language Arts, Technology                                                                                                                       |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Focus Standards (Major Standards) <a href="https://www.nj.gov/education/cccs/">https://www.nj.gov/education/cccs/</a>                                                                                                                      |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Content Standards                                                                                                                                                                                                                          | Suggested Mathematical Practices                                                                                                                                                                                                                                                                                | Critical Knowledge & Skills                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3.M.A.1. TML 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) | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP1: Make sense of problems and persevere in solving them.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP7: Look for and make use of structure.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Analog clocks represent hours as numbers and minutes are represented as tick marks.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ Tell time to the nearest minute using digital and analog clocks.</li> <li>➤ write time to the nearest minute using analog clocks.</li> <li>➤ choose appropriate strategies to solve real world problems involving time.</li> <li>➤ use the number line as a visual model to determine intervals of time as <i>jumps</i> on a number line.</li> <li>➤ measure time intervals.</li> </ul> <p>Learning Goal: TML and write time to the nearest minute, and solve word problems with addition and subtraction involving time intervals in minutes.</p> |
| 3.M.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                                            | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p>                                                                                                                                                                                                        | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Mass may be measured in grams and kilograms.</li> <li>➤ Mass is measured by weighing.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|                                                                        |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| problems involving masses or volumes that are given in the same units. | <p>MP2: Reason abstractly and quantitatively.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP6: Attend to precision.</p> <p>MP8: Look for and express regularity in repeated reasoning.</p> | <ul style="list-style-type: none"> <li>➤ Volume may be measured in liters.</li> <li>➤ Volume may be measured with instruments such as beakers.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ measure and read a scale to estimate volume.</li> <li>➤ measure and read a scale to estimate mass.</li> <li>➤ add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes.</li> </ul> <p>Learning Goal: Solve one step word problems by estimating and measuring volume and mass using appropriate tools and standard units of grams, kilograms, and liters.</p> |
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**New Jersey Student Learning Standards: Interdisciplinary Connections**

**Reading/Language Arts**

SL.PE.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.

- A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- B. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- C. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- D. Explain their own ideas and understanding in light of the discussion.

SL.II.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

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SL.ES.3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

SL.AS.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

W.IW.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- A. Introduce a topic clearly.
- B. Develop the topic with facts, definitions, and concrete details, text evidence, or other information and examples related to the topic.
- C. Include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.
- D. Link ideas within sections of information using transition words and phrases (e.g., then, because, also, another, therefore).
- E. Provide a conclusion related to the information or explanation presented.

W.WP.3.4. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

- A. Identify audience, purpose, and intended length of composition before writing.
- B. Consider writing as a process, including self-evaluation, revision and editing.
- C. With adult and peer feedback, and digital or print tools such as a dictionary, thesaurus, and/or spell checker, find and correct errors and improve word choice.

W.RW.3.7. Engage in independent and task-based writing for both short and extended periods of time, producing written work routinely.

L.RF.3.4. Read with sufficient accuracy and fluency to support comprehension.

- A. Read grade-level text with purpose and understanding.
- B. Read grade-level text orally with accuracy, appropriate rate, and expression.
- C. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

**New Jersey Student Learning Standards: [Career Readiness, Life Literacies, and Key Skills Articulation Guide](#)**

| <b>Core Ideas</b>                                                                                                                           | <b>Performance Expectations (Identified with Standard Number and statement)</b>                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills. | 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).                              |
| The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.             | 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).<br><br>9.4.5.CT.3: Describe how digital tools and technology may be |

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|                                                                                                                                           |                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                           | used to solve problems.                                                                                                                  |
| Different digital tools have different purposes.                                                                                          | 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each. |
| <b>New Jersey Student Learning Standards: <a href="#">Computer Science and Design Thinking Articulation Guide</a></b>                     |                                                                                                                                          |
| <b>Core Ideas</b>                                                                                                                         | <b>Performance Expectations (Identified with Standard Number and Statement)</b>                                                          |
| Data can be organized, displayed, and presented to highlight relationships.                                                               | 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.                                  |
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data. | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.                |
| Different algorithms can achieve the same result. Some algorithms are more appropriate for a specific use than others                     | 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.                        |

|                                                                                                                                           |                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>New Jersey Student Learning Standards: <a href="#">Climate Change Mandate</a></b>                                                      |                                                                                                                           |
| <b>Core Ideas</b>                                                                                                                         | <b>Performance Expectations (Identified with Standard Number and Statement)</b>                                           |
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data. | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. |

**Unit Learning Targets (Objectives):**

*Students will be able to...*

**Content Objectives:**

- Use analog clocks to tell and write time to the nearest minute.
- Relate time displayed on analog clocks to digital clocks.
- Express time in terms of minutes before the hour.
- Distinguish between AM and PM.
- Measure time intervals in minutes using clock models and number lines.

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- Solve word problems involving elapsed time through addition or subtraction of minutes.
- Identify real-world items that can be measured in liters.
- Understand and estimate liquid volume using 1-liter as a benchmark.
- Solve one-step word problems involving liquid volume (capacity).
- Recognize that objects can be measured by mass (how heavy or light they are).
- Identify appropriate items that can be measured in grams or kilograms.
- Understand and estimate mass using the benchmarks of 1 gram and 1 kilogram. Solve one-step word problems involving mass using appropriate units.

**Language Objectives:**

- Tell and write the time to the minute on digital and analog clocks.
- Draw clock hands on an analog clock to show a given time.
- Use the terms *AM* and *PM* correctly in both writing and conversation.
- Explain how to calculate elapsed time when given either the start or end time.
- Identify and describe containers that hold about 1 liter of liquid.
- Estimate liquid volume of different containers and explain reasoning.
- Use mathematical terms such as *liquid volume* and *liter* accurately in discussions.
- Restate and explain word problems involving measurement of liquid volume.
- Identify and list everyday objects that weigh approximately 1 gram or 1 kilogram.
- Estimate the mass of objects and explain the reasoning behind those estimates.
- Use key vocabulary like *mass*, *gram*, and *kilogram* to communicate effectively.
- Explain mass measurements based on balance or spring scale visuals.
- Restate and explain word problems involving mass.

**Unit Enduring Understandings:**

*Students will know...*

- You can use measurement to estimate and find the volume of liquids in liters and the mass of objects in grams or kilograms.
- Both analog and digital clocks show time. Knowing how to tell time to the nearest minute helps you solve problems involving elapsed time.

**Unit Essential Questions:**

- How do digital and analog clocks help us tell and track time?
- How does telling time to the nearest minute help you solve problems about elapsed time?
- How can you estimate or measure the volume of a liquid using liters?
- How can you estimate or measure the mass of an object using grams or kilograms?

**Instructional Plan**

*Ready Classroom Mathematics* uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to

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Prepare, Reteach Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

Whole Group Instruction

- Session Activities
  - Explore--Students draw on prior knowledge and make connections to new concepts
  - Develop--Students develop strategies and understanding through problem solving and discourse
  - Refine--Students deepen their understanding and strengthen their skills
- What Happens In the Classroom
  - Students make sense of problems and attempt their own representations and solution strategies.
  - Hints are provided to students in the form of questions to consider as they solve each problem
  - Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
  - Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
  - The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
  - Whole group discussion allows for students to show their thinking
- Try-Discuss Connect Routine
  - Try
    - Make sense of the problem
    - Solve and support your thinking
  - Discuss
    - Share your thinking with a partner
    - Compare Strategies
  - Connect
    - Make connections and reflect on what you have learned
    - Apply your thinking to a new problem
- Resources:
  - Ready Classroom Teacher Toolkit
    - Instruction and Practice
      - Editable Powerpoint
      - Interactive Tutorial
      - Student Worktext
      - Discourse Cards
      - Digital Manipulatives
      - Math Journal
      - Lesson Vocabulary Activities
      - Unit Game



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- Exit Ticket

**Small Group Differentiation**

- Prepare
  - Ready Prerequisite Lessons
- Reteach
  - Tools for Instruction
- Reinforce
  - Differentiated Math Center Activities
- Extend
  - Enrichment Activities

**Independent Learning**

- iReady online personalized instruction generated from iReady Diagnostic assessment
- Fluency and skills practice
- Interactive Tutorials (Lesson, Prerequisite, or Extend)
- Math Center Activities
- Additional Practice Activities
- Online Fluency Games

| Mathematical Practice                                           | Habit                      |
|-----------------------------------------------------------------|----------------------------|
| Make sense of the problem and persevere in solving them         | Solve problems             |
| Reason abstractly and quantitatively                            | Think and reason           |
| Construct viable arguments and critique the reasoning of others | Show and explain           |
| Model with Mathematics                                          | Use math in the real world |
| Use appropriate tools strategically                             | Choose a tool              |
| Attend to precision                                             | Be clear and precise       |
| Look for and make use of structure                              | Zoom in and out            |
| Look for and express regularity in repeated reasoning           | Use patterns               |

**Evidence of Student Learning**

**Formative Assessments:**

- Teacher Observation

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- Games
- Performance Assessment
- Anecdotal Records
- Exit Slips
- Oral Assessment/Conferencing
- Portfolios/Journals
- Daily Classwork
- Pre-Assessment

**Summative Assessments**

- Unit Tests
- Quizzes
- Writing Samples

**Benchmark Assessments:**

- Unit Assessments
- iReady Diagnostic

**Alternative Assessments**

- Portfolio review
- Anecdotal Notes

**Performance Tasks:**

- Project Based Learning Activity
- Math In Action

**Suggested Options for Differentiation and Modifications**

**Special Education**

- Follow all IEP modifications.
- Provide visuals, graphic organizers, and manipulatives.
- Pre-teach and review vocabulary and concepts.
- Offer summaries, word banks, and visual glossaries.
- Use leveled texts and scaffolds for complex tasks.
- Provide small-group guided instruction.
- Use peer tutoring or a supportive “buddy.”
- Allow preferential seating.
- Give extra time on tasks and assessments.
- Accept oral or dictated responses.
- Shorten or adjust the number and types of questions.
- Provide large-print, Braille, or digital text with audio supports.
- Use scribes or communication devices when needed.

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**Students with 504 Plans**

- Follow the 504 plan.

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- Provide extra time for assignments/tests.
  - Offer small-group settings.
  - Accept oral or dictated responses.
  - Provide large-print, Braille, or digital text.
  - Allow use of a scribe or communication device.
- 

#### **Students at Risk of School Failure**

- Use visuals and hands-on supports.
  - Pre-teach vocabulary and key concepts.
  - Provide small-group instruction and guided practice.
  - Read aloud directions; model steps.
  - Assign peer tutors or partners.
  - Offer preferential seating.
  - Break down multi-step tasks into smaller parts.
- 

#### **Gifted and Talented**

- Ask open-ended, higher-order questions (analyze, evaluate, create).
  - Use “why” and “what if” prompts to deepen thinking.
  - Provide extension activities based on interests.
  - Offer advanced reading lists or enrichment projects.
  - Group flexibly by ability, interest, or project choice.
  - Use organizers, puzzles, and independent research tasks.
  - Provide options and choice in assignments.
  - Encourage participation in simulations and problem-solving challenges.
  - Include opportunities for reflection and debriefing.
- 

#### **Multilingual Learners**

- Collaborate with ESL/MLL specialists.
  - Provide small-group instruction with language scaffolds.
  - Pre-teach vocabulary; label classroom items and visuals.
  - Use visual glossaries, cognates, and graphic organizers.
  - Offer sentence frames and speaking supports.
  - Allow oral responses and extra time on assignments.
  - Provide audio books, recorded directions, or read-aloud support.
-

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**Diversity and Inclusion**

- Respect and incorporate cultural traditions.
- Provide alternative assignments when appropriate.
- Use visuals and clear, direct language.
- Collaborate with language and support staff.
- Maintain a structured, inclusive classroom environment.
- Build strong connections with families and caregivers.

**Supplemental Resources**

**Instructional Materials**

- Ready Math Interactive Tutorials
- Ready Math Textbook

**Supplemental Materials**

- Task Cards
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- edPuzzle
- Nearpod

**Intervention Materials**

- Task Cards
- Dice/Card Games
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- Ready Tools for Instruction

**OCEAN ACADEMY CHARTER SCHOOL**

Unit 6 Overview

**Content Area: Mathematics**

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <b>Unit Title: Unit 6: Shapes (Trimester 3)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Duration: 20 Days</b> |
| <b>Target Course/Grade Level: Grade 3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |
| <p style="text-align: center;"><b>Introduction/Unit Focus:</b></p> <p>In this unit, students will develop a deeper understanding of geometric concepts by reasoning with shapes and their attributes, interpreting and representing data, and exploring geometric measurement with a focus on perimeter and area. They will describe, compare, and classify shapes based on their sides, angles, and other defining attributes. Through comparison and classification, students will begin to see patterns and categories within geometry, which supports their ability to reason spatially and solve problems involving shapes and their properties.</p> <p>Students will apply their understanding of geometry to measurement by solving problems involving perimeter, including determining unknown side lengths, comparing rectangles with the same perimeter but different areas, and exploring rectangles with the same area but different perimeters. They will also partition rectangles into equal parts and use unit fractions to name the area of shaded sections, which strengthens the connection between geometry, measurement, and fractions.</p> <p>To succeed in this unit, students build on several important foundational skills. They have previously identified sides and angles of various shapes and polygons and understand that figures like triangles, quadrilaterals, and pentagons can have different orientations and appearances. They are familiar with the attributes of quadrilaterals, including recognizing right angles, and they understand how to add and subtract whole numbers, which supports calculations in measurement tasks. Additionally, students have experience recognizing and partitioning shapes into equal parts and can express those parts as halves, thirds, and fourths. These prior experiences lay the groundwork for connecting geometric reasoning with fraction concepts and solving real-world problems involving area and perimeter. Through hands-on activities, drawing, and reasoning, students will gain confidence in analyzing shapes, interpreting geometric data, and solving measurement problems in increasingly complex ways.</p> |                          |
| <p><b>Disciplinary Concepts for the Unit</b></p> <p><b>Standard 9.1 Personal Financial Literacy</b><br/>This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.</p> <p><b>Standard 9.2 Career Awareness, Exploration, Preparation and Training</b><br/>This standard outlines the importance of being knowledgeable about one's interests and talents, and being wML informed about postsecondary and career options, career planning, and career requirements.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |

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**Standard 9.4 Life Literacies and Key Skills**

This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy\* that are critical for students to develop to live and work in an interconnected global economy.

**Standard 8.1 Computer Science**

Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

**Standard 8.2 Design Thinking**

Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

**Amistad Law: N.J.S.A. 18A 52:16A-88** Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

**Holocaust Law: N.J.S.A. 18A:35-28** Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens. .

**Diversity and Inclusion: C.18A:35-4.36a** Curriculum to include instruction on diversity and inclusion.

The instruction shall:

- (1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;
- (2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and
- (3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

**Asian Americans and Pacific Islanders (AAPI)**

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

**21st Century Themes and Skills**

“Twenty-first century themes and skills” means themes such as global awareness; financial,

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economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy.”

**Content Statements**

**This unit extends students’ understanding of two-dimensional shapes.**

**Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics, Reading/Language Arts, Technology**

**Focus Standards (Major Standards) <https://www.nj.gov/education/cccs/>**

| Content Standards                                                                                                                                                                                                                                                                                                                                             | Suggested Mathematical Practices                                                                                                                                                                                                                                                                             | Critical Knowledge & Skills                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>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.</p> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP1: Make sense of problems and persevere in solving them.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP6: Attend to precision.</p> <p>MP7: Look for and make use of structure.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Shapes in different categories share attributes.</li> <li>➤ Quadrilaterals are closed figures with four sides.</li> <li>➤ Rhombuses, rectangles, etc, and other quadrilaterals share attributes.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ classify and sort shapes by attributes.</li> <li>➤ explain why rhombuses, rectangles, and squares are examples of quadrilaterals.</li> <li>➤ draw examples of quadrilaterals.</li> </ul> <p>Learning Goal: Recognize rhombuses, rectangles, and squares as examples of</p> |

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|                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                | quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p>3.G.A.2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts having equal area and describe the area of each part as <math>1/4</math> of the area of the shape.</i></p> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP 4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP7: Look for and make use of structure.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Wholes, when partitioned into equal parts, contain parts representing a unit fraction and each part is the same size.</li> <li>➤ Each part has the same name and represents a unit fraction (one-half, one-third, one-fourth, one-sixth, one-eighth).</li> <li>➤ The denominator is the total number of parts in the whole.</li> <li>➤ The numerator is the number of parts in a given fraction.</li> <li>➤ Fraction <math>1/b</math> is the quantity formed by 1 part when a whole is partitioned into <math>b</math> equal parts.</li> <li>➤ Fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math> (e.g. <math>10/2</math> is 10 parts and each part is of size <math>1/2</math>).</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ Partition rectangles, and other shapes, into halves, thirds, fourths, sixths and eighths.</li> <li>➤ identify the fractional name of each part.</li> <li>➤ model and explain that a fraction <math>a/b</math> is the quantity formed by <math>a</math> parts of size <math>1/b</math> (For example, <math>10/2</math> is 10</li> </ul> |



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|                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                 | <p>parts and each part is of size <math>\frac{1}{2}</math>).</p> <p>Learning Goal: Partition shapes into parts with equal areas and express the area of each part as a unit fraction; interpret the unit fraction <math>\frac{1}{b}</math> as the quantity formed by 1 of b equal parts of a whole and the fraction <math>\frac{a}{b}</math> as the quantity formed by a parts of size <math>\frac{1}{b}</math>.</p>                                                                                                                                                                                                                                                                                                                                                                                         |
| <p>3.M.C.6. 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.</p> | <p>*SMP 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the Try-Discuss-Connect routine.</p> <p>MP2: Reason abstractly and quantitatively.</p> <p>MP4: Model with mathematics.</p> <p>MP5: Use appropriate tools strategically.</p> <p>MP7: Look for and make use of structure.</p> | <p>Concept(s):</p> <ul style="list-style-type: none"> <li>➤ Perimeter of a figure is equivalent to the sum of the length of all of the sides.</li> <li>➤ Rectangles that have same perimeter can have different areas.</li> <li>➤ Rectangles that have same area can have different perimeters.</li> </ul> <p>Students are able to:</p> <ul style="list-style-type: none"> <li>➤ Determine the perimeter of various plane shapes and irregular shapes given the side lengths.</li> <li>➤ Determine the unknown side length given the perimeter and other sides.</li> <li>➤ Show rectangles having the same perimeter and different areas.</li> <li>➤ Show rectangles having different perimeters and the same area.</li> </ul> <p>Learning Goal 12: Solve real world and mathematical problems involving</p> |

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|  |  |                                                                                                                                                                                                                                       |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | 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. |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**New Jersey Student Learning Standards: Interdisciplinary Connections**

**Reading/Language Arts**

SL.PE.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.

- A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- B. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- C. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- D. Explain their own ideas and understanding in light of the discussion.

SL.II.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

SL.ES.3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

SL.AS.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

W.IW.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- A. Introduce a topic clearly.
- B. Develop the topic with facts, definitions, and concrete details, text evidence, or other information and examples related to the topic.
- C. Include text features (e.g.: illustrations, diagrams, captions) when useful to support comprehension.
- D. Link ideas within sections of information using transition words and phrases (e.g., then, because, also, another, therefore).
- E. Provide a conclusion related to the information or explanation presented.

W.WP.3.4. With guidance and support from peers and adults, develop and strengthen writing

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as needed by planning, revising, and editing.

- A. Identify audience, purpose, and intended length of composition before writing.
- B. Consider writing as a process, including self-evaluation, revision and editing.
- C. With adult and peer feedback, and digital or print tools such as a dictionary, thesaurus, and/or spell checker, find and correct errors and improve word choice.

W.RW.3.7. Engage in independent and task-based writing for both short and extended periods of time, producing written work routinely.

L.RF.3.4. Read with sufficient accuracy and fluency to support comprehension.

- A. Read grade-level text with purpose and understanding.
- B. Read grade-level text orally with accuracy, appropriate rate, and expression.
- C. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

**New Jersey Student Learning Standards: [Career Readiness, Life Literacies, and Key Skills Articulation Guide](#)**

| <b>Core Ideas</b>                                                                                                                           | <b>Performance Expectations (Identified with Standard Number and statement)</b>                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills. | 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).                                                      |
| The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.             | 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).<br><br>9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems. |
| Different digital tools have different purposes.                                                                                            | 9.4.5.TL.1: Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.                                                                                               |

**New Jersey Student Learning Standards: [Computer Science and Design Thinking Articulation Guide](#)**

| <b>Core Ideas</b>                                                                                                          | <b>Performance Expectations (Identified with Standard Number and Statement)</b>                                           |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Data can be organized, displayed, and presented to highlight relationships.                                                | 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.                   |
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. |

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|                                                                                                                       |                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| from the data.                                                                                                        |                                                                                                                   |
| Different algorithms can achieve the same result. Some algorithms are more appropriate for a specific use than others | 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate. |

**New Jersey Student Learning Standards: [Climate Change Mandate](#)**

| Core Ideas                                                                                                                                | Performance Expectations (Identified with Standard Number and Statement)                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Individuals can select, organize, and transform data into different visual representations and communicate insights gained from the data. | 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. |

**Knowledge and Skills**

**Unit Learning Targets (Objectives):**

*Students will be able to...*

**Content Objectives:**

- Identify two-dimensional shapes and describe their defining attributes.
- Draw two-dimensional shapes based on specific attributes.
- Compare and contrast attributes of various two-dimensional shapes, including quadrilaterals.
- Categorize shapes based on shared attributes and determine which shapes do or do not belong to specific categories.
- Identify, draw, and classify quadrilaterals, including rectangles, rhombuses, and parallelograms.
- Understand and explain the difference between perimeter and area.
- Use side lengths to calculate the perimeter of polygons and find unknown side lengths when given the total perimeter.
- Recognize that rectangles with the same perimeter can have different areas and that rectangles with the same area can have different perimeters.
- Partition shapes into equal areas and express each part as a unit fraction of the whole.
- Partition the same shape in different ways while maintaining equal areas.

**Language Objectives:**

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- Draw and label two-dimensional shapes based on specified attributes.
- Name and describe shapes using correct mathematical terms such as *angle* and *right angle*.
- Use and define key vocabulary such as *attribute*, *parallel*, *parallelogram*, *quadrilateral*, *rectangle*, and *rhombus* in mathematical discussions.
- Explain the difference between area and perimeter in both oral and written form.
- Write addition equations to represent perimeter.
- Use the term *perimeter* appropriately when comparing area and perimeter.
- Draw and compare rectangles that have either the same perimeter but different areas or the same area but different perimeters.
- Draw lines to partition shapes into equal parts and describe each part using unit fractions.
- Shade parts of shapes to show given fractions and explain the relationship between parts and the whole.

**Unit Enduring Understandings:**

*Students will know...*

- Two-dimensional shapes have many attributes, and knowing these helps you group and categorize shapes.
- Perimeter is the total length around a shape, while area measures the space inside it. Understanding these helps you think about the shape's properties.
- You can divide shapes into equal parts to represent fractional parts of a whole.

**Unit Essential Questions:**

- How can you use the attributes of shapes to classify and categorize them?
- What is perimeter, and how is it measured?
- How can knowing the perimeter or area of a rectangle help you understand its shape?
- How can shapes be divided into equal parts to represent fractions?

**Instructional Plan**

*Ready Classroom Mathematics* uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

**Whole Group Instruction**

- Session Activities
  - Explore--Students draw on prior knowledge and make connections to new concepts

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- Develop--Students develop strategies and understanding through problem solving and discourse
- Refine--Students deepen their understanding and strengthen their skills
- What Happens In the Classroom
  - Students make sense of problems and attempt their own representations and solution strategies.
  - Hints are provided to students in the form of questions to consider as they solve each problem
  - Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
  - Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
  - The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
  - Whole group discussion allows for students to show their thinking
- Try-Discuss Connect Routine
  - Try
    - Make sense of the problem
    - Solve and support your thinking
  - Discuss
    - Share your thinking with a partner
    - Compare Strategies
  - Connect
    - Make connections and reflect on what you have learned
    - Apply your thinking to a new problem
- Resources:
  - Ready Classroom Teacher Toolkit
    - Instruction and Practice
      - Editable Powerpoint
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Small Group Differentiation

- Prepare
  - Ready Prerequisite Lessons
- Reteach
  - Tools for Instruction
- Reinforce

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- Differentiated Math Center Activities
- Extend
  - Enrichment Activities

**Independent Learning**

- iReady online personalized instruction generated from iReady Diagnostic assessment
- Fluency and skills practice
- Interactive Tutorials (Lesson, Prerequisite, or Extend)
- Math Center Activities
- Additional Practice Activities
- Online Fluency Games

| Mathematical Practice                                           | Habit                      |
|-----------------------------------------------------------------|----------------------------|
| Make sense of the problem and persevere in solving them         | Solve problems             |
| Reason abstractly and quantitatively                            | Think and reason           |
| Construct viable arguments and critique the reasoning of others | Show and explain           |
| Model with Mathematics                                          | Use math in the real world |
| Use appropriate tools strategically                             | Choose a tool              |
| Attend to precision                                             | Be clear and precise       |
| Look for and make use of structure                              | Zoom in and out            |
| Look for and express regularity in repeated reasoning           | Use patterns               |

**Evidence of Student Learning**

**Formative Assessments:**

- Teacher Observation
- Games
- Performance Assessment
- Anecdotal Records
- Exit Slips
- Oral Assessment/Conferencing
- Portfolios/Journals
- Daily Classwork
- Pre-Assessment

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**Summative Assessments**

- Unit Tests
- Quizzes
- Writing Samples

**Benchmark Assessments:**

- Unit Assessments
- iReady Diagnostic

**Alternative Assessments**

- Portfolio review
- Anecdotal Notes

**Performance Tasks:**

- Project Based Learning Activity
- Math In Action

**Suggested Options for Differentiation and Modifications**

**Special Education**

- Follow all IEP modifications.
  - Provide visuals, graphic organizers, and manipulatives.
  - Pre-teach and review vocabulary and concepts.
  - Offer summaries, word banks, and visual glossaries.
  - Use leveled texts and scaffolds for complex tasks.
  - Provide small-group guided instruction.
  - Use peer tutoring or a supportive “buddy.”
  - Allow preferential seating.
  - Give extra time on tasks and assessments.
  - Accept oral or dictated responses.
  - Shorten or adjust the number and types of questions.
  - Provide large-print, Braille, or digital text with audio supports.
  - Use scribes or communication devices when needed.
- 

**Students with 504 Plans**

- Follow the 504 plan.
  - Provide extra time for assignments/tests.
  - Offer small-group settings.
  - Accept oral or dictated responses.
  - Provide large-print, Braille, or digital text.
  - Allow use of a scribe or communication device.
-



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### **Students at Risk of School Failure**

- Use visuals and hands-on supports.
  - Pre-teach vocabulary and key concepts.
  - Provide small-group instruction and guided practice.
  - Read aloud directions; model steps.
  - Assign peer tutors or partners.
  - Offer preferential seating.
  - Break down multi-step tasks into smaller parts.
- 

### **Gifted and Talented**

- Ask open-ended, higher-order questions (analyze, evaluate, create).
  - Use “why” and “what if” prompts to deepen thinking.
  - Provide extension activities based on interests.
  - Offer advanced reading lists or enrichment projects.
  - Group flexibly by ability, interest, or project choice.
  - Use organizers, puzzles, and independent research tasks.
  - Provide options and choice in assignments.
  - Encourage participation in simulations and problem-solving challenges.
  - Include opportunities for reflection and debriefing.
- 

### **Multilingual Learners**

- Collaborate with ESL/MLL specialists.
  - Provide small-group instruction with language scaffolds.
  - Pre-teach vocabulary; label classroom items and visuals.
  - Use visual glossaries, cognates, and graphic organizers.
  - Offer sentence frames and speaking supports.
  - Allow oral responses and extra time on assignments.
  - Provide audio books, recorded directions, or read-aloud support.
- 

### **Diversity and Inclusion**

- Respect and incorporate cultural traditions.
- Provide alternative assignments when appropriate.
- Use visuals and clear, direct language.
- Collaborate with language and support staff.
- Maintain a structured, inclusive classroom environment.

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- Build strong connections with families and caregivers.

**Supplemental Resources**

Instructional Materials

- Ready Math Interactive Tutorials
- Ready Math Textbook

Supplemental Materials

- Task Cards
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- edPuzzle
- Nearpod

Intervention Materials

- Task Cards
- Dice/Card Games
- Dice/Card Games
- BrainPopJr.com
- Flocabulary.com
- Prodigy Math
- xtramath.org
- Incorporate Literature/Read Alouds
- Gfletchy.com - Problem of the Day Resources
- Ready Tools for Instruction