

Ocean Academy Charter School
Curriculum Guide
Grade 4 - Mathematics



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Created by:	Amy LaBarca and Dariaknna Yencer

OCEAN ACADEMY CHARTER SCHOOL Mathematics Curriculum	
Content Area: Mathematics	
Course Title: Elementary Mathematics	
Grade Level: Grade 4	
Unit 1: Whole Numbers	30 Days
Unit 2: Operations	30 Days
Unit 3: Multi-Digit Operations and Measurement	30 Days
Unit 4: Fractions, Decimals, and Measurement	60 Days
Unit 5: Geometry and Measurement	30 Days

OCEAN ACADEMY CHARTER SCHOOL Unit 1 Overview	
Content Area: Mathematics	
Unit Title: Whole Numbers: Place Value, Comparison, Addition and Subtraction	Duration: 30 Days
Target Course/Grade Level: Grade 4	
Introduction/Unit Focus: In this unit, students will deepen their understanding of the base-ten number system as they generalize place value concepts to read, write, compare, round, add, and subtract multi-digit whole numbers. They will work with numbers through the hundred thousands, learning to represent them in standard form, expanded form, and word form. Through this exploration,	

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students build fluency in recognizing the value of each digit based on its position and use that understanding to perform operations efficiently and accurately.

Students will use place value understanding and properties of operations to round numbers to any given place, helping them estimate sums and differences in practical contexts. They will compare multi-digit numbers using relational symbols such as greater than, less than, and equal to, reinforcing the idea that the position of a digit in a number determines its value. These comparison skills support students in understanding number magnitude and structure.

Building on their knowledge of addition and subtraction from earlier grades, students will extend their computational skills to include multi-digit addition and subtraction using standard algorithms. They will solve problems, applying their place value reasoning to accurately align digits and regroup as needed.

To be successful in this unit, students rely on a solid foundation of prior learning. They should already be comfortable reading and writing whole numbers, understanding place value through the thousands, and multiplying by ten. They should know how to compare the values of digits, interpret mathematical symbols like greater than, less than, and equal to, and round numbers to the nearest ten or hundred. Additionally, fluency with basic addition facts and adding two- and three-digit numbers will support their transition to more complex multi-digit computation.

By the end of the unit, students will be able to confidently apply place value reasoning to perform operations, round numbers, and solve real-world problems involving large numbers. These skills lay the groundwork for future work with decimals, multiplication, and division in later units and grades.

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 well 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 challenges and opportunities in an interconnected global economy.”

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Content Statements		
This unit extends students' understanding of adding and subtracting whole numbers.		
Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics		
Focus Standards (Major Standards) https://www.nj.gov/education/cccs/		
Content Standards	Suggested Mathematical Practices	Critical Knowledge & Skills
4.NBT.A.1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. <i>example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.</i>	SMP.2 Reason abstractly and quantitatively. SMP.6 Attend to precision. SMP.7 Look for and make use of structure. SMP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➤ A quantitative relationship exists between the digits in place value positions of a multi-digit number. Students are able to: ➤ Explain that a digit in one place represents ten times what it would represent in the place to its right. Learning Goal 5: For a whole number up to one million, explain that a digit in one place represents ten times what it would represent in the place to its right.
4.NBT.A.2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on the meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	SMP.2 Reason abstractly and quantitatively. SMP.6 Attend to precision. SMP.7 Look for and make use of structure. SMP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➤ Multiple representations of whole numbers exist. Students are able to: ➤ read and write multi-digit whole numbers using base-ten numerals.read and write multi-digit whole numbers using number names. ➤ read and write multi-digit whole

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		numbers using expanded form. ➤ compare two multi-digit numbers using $>$, $=$, and $<$ symbols. Learning Goal 6: Compare two multi-digit whole numbers (up to one million) using $>$, $=$, and $<$ for numbers presented as base ten numerals, number names, and/or in expanded form.
4.NBT.A.3. Use place value understanding to round multi-digit whole numbers to any place.	SMP.2 Reason abstractly and quantitatively. SMP.3 Construct viable arguments and critique the reasoning of others. SMP.5 Use appropriate tools strategically.SMP.7 Look for and make use of structure. SMP.7 Look for and make use of structure. SMP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➤ Estimation Students are able to: ➤ round whole numbers to any place. Learning Goal 7: Round multi-digit whole numbers up to one million to any place.
4.NBT.B.4. With accuracy and efficiency add and subtract multi-digit whole numbers using the standard algorithm.	SMP.2 Reason abstractly and quantitatively. SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: ➤ add multi-digit whole numbers using the standard algorithm with accuracy and efficiency.

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	SMP.8 Look for and express regularity in repeated reasoning.	➤ subtract multi-digit whole numbers using the standard algorithm with accuracy and efficiency. Learning Goal 8: Fluently add and subtract multi-digit whole numbers using the standard algorithm.
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New Jersey Student Learning Standards: Interdisciplinary Connections

Reading/Language Arts

RL.CR.4.1. Refer to details and examples as textual evidence when explaining what a literary text says explicitly and make relevant connections when drawing inferences from the text.

L.RF.4.4. Read with sufficient accuracy and fluency to support comprehension.

L.VL.4.2. Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

RI.MF.4.6. Use evidence to show how graphics and visuals (e.g., illustrations, charts, graphs, diagrams, timelines, animations) support central ideas.

L.WF.4.2 Demonstrate command of the conventions of encoding and spelling

L.WF.4.3. Demonstrate command of the conventions of writing, including those listed under grade three foundational skills:

- A. Use basic paragraphing, including using paragraph indentations and using paragraphs in dialogue.
- B. Place adjectives and adverbs and form comparative and superlative adjectives and adverbs.
- C. Use independent clauses and coordinating conjunctions.
- D. Form irregular verbs; form and use progressive tenses.
- E. Form and use possessive nouns and pronouns.
- F. Capitalize the first word in quotations as appropriate, capitalize other important words (e.g., section headings).
- G. Use underlining, quotation marks, or italics for titles; use quotation marks for direct speech; use comma before a coordinating conjunction in a compound sentence.
- H. Use apostrophes for possession.

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

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Core Ideas	Performance Expectations (Identified with Standard Number and statement)
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). 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).
New Jersey Student Learning Standards: Computer Science and Design Thinking Articulation Guide	
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.
Shared features allow for common troubleshooting strategies that can be effective for many systems.	8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.
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 a place value chart to understand the value of each digit in a multi-digit number.
- Identify the value of a digit based on its position in a number.
- Demonstrate that moving from one place-value position to the next greatest place increases the value of a digit by ten times.
- Represent numbers in multiple ways, including standard, expanded, and word form.
- Read and write multi-digit whole numbers in a variety of forms.
- Compare multi-digit numbers using place-value understanding and appropriate symbols ($>$, $<$, $=$).
- Round multi-digit whole numbers to any given place.
- Use number lines and place-value charts to support rounding strategies.
- Apply place-value strategies to add and subtract multi-digit whole numbers.
- Develop fluency using the standard algorithm for addition and subtraction of whole numbers up to 999,999.
- Estimate sums and differences by rounding to check for reasonableness.
- Use addition to verify subtraction results and vice versa.

Language Objectives:

- Read and write multi-digit whole numbers in standard, word, and expanded form.
- Describe the value of each digit in a number and explain how its value changes when it moves to a different place.
- Read aloud and interpret inequality statements comparing two whole numbers.
- Write inequality statements using symbols to compare numbers.
- Explain how to round a number to a specific place value using number lines and place-value charts.
- Use appropriate mathematical vocabulary to describe the steps in rounding, adding, and subtracting numbers.
- Describe when and how to use regrouping while adding or subtracting multi-digit numbers.
- Record sums and differences using the standard algorithm.
- Explain the purpose of regrouping notation and discuss how place-value strategies support addition and subtraction.

Unit Enduring Understandings:

Students will know...

- Each place in a number is ten times greater than the place to its right, which helps determine the value of digits in a number.

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- Understanding place value helps you read, write, and compare multi-digit numbers.
- Knowing place value supports rounding numbers and adding or subtracting multi-digit numbers.

Unit Essential Questions:

- How does understanding that each place is ten times greater than the one to its right help you determine the value of digits?
- How can you use place value to read, write, and compare multi-digit numbers?
- How can place value help you round numbers and perform addition and subtraction with multi-digit numbers?

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

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- 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 persevere in solving them	Solve problems
Reason abstractly and quantitatively	Think and reason
Construct viable arguments and	Show and explain

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critique the reasoning of others	
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 Assessments
- Lesson Quizzes
- Writing Samples

Benchmark Assessments:

- IReady Assessments

Alternative Assessments

- Portfolio review
- Anecdotal Notes

Performance Tasks:

- Project Based Learning Activity

Suggested Options for Differentiation and Modifications

Special Education

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- 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.
- Offer advanced reading lists or enrichment projects.
- Group flexibly by ability, interest, or project choice.
- Use organizers, puzzles, and independent research tasks.

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- 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 Classroom Instruction & Practice - Grade 4
- Interactive Tutorials
- Manipulatives
- Brainpop

Supplemental Materials

- Math Center Activities
- Enrichment Activities
- Xtra Math
- Nearpod

Intervention Materials

- Prerequisite Lessons
- Tools for Instruction

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OCEAN ACADEMY CHARTER SCHOOL Unit 2 Overview	
Content Area: Mathematics	
Unit Title: Operations: Multiplication, Division, and Algebraic Thinking	Duration: 30 Days
Target Course/Grade Level: Grade 4	
Introduction/Unit Focus: In this unit, students will deepen their understanding of multiplication and division through the exploration of multiplicative comparisons, multi-step problem solving, and number patterns. They will interpret multiplication comparison statements and apply this understanding to solve real-world word problems using both multiplication and division. As they work through these problems, students will learn to represent situations with equations, clarify the order of operations using parentheses, and evaluate whether their solutions make sense. This work builds a strong foundation for applying operations flexibly and appropriately across various problem types. Students will also develop familiarity with factors and multiples, a key concept in number theory and foundational to understanding future work with fractions and algebra. They will identify factor pairs for numbers, determine whether numbers are prime or composite, and recognize multiples in numerical sequences. These skills will be integrated into the study of arithmetic and geometric patterns, helping students describe rules and relationships within patterns and identify how numbers behave when those rules are applied. This unit emphasizes precision and reasoning as students use a variety of tools including arrays, number lines, and visual models to solve problems. They will extend their understanding of place value and the properties of operations to perform multi-digit arithmetic fluently. Throughout the unit, students will model problems using equations, identify unknown quantities with variables, and explain their reasoning with clarity. To ensure success in this unit, students should be comfortable comparing numbers, recognizing arithmetic patterns, and recalling basic multiplication and division facts. They should have experience using arrays, interpreting the relationship between multiplication and division, identifying odd and even numbers, and using estimation strategies such as rounding. This unit supports students in strengthening these skills while advancing their ability to solve complex problems and reason mathematically.	
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.	

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Content Statements

This unit extends students’ understanding of multiplication and division.

Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics

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

Content Standards	Suggested Mathematical Practices	Critical Knowledge & Skills
4.OA.A.1. Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.	SMP.2 Reason abstractly and quantitatively. SMP.3 Construct viable arguments and critique the reasoning of others. SMP.4 Model with mathematics. SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure.	Concept(s): ➤ Multiplication equations represent comparisons. Students are able to: ➤ explain multiplication equations as comparisons. ➤ write multiplication equations given word problems indicating multiplicative comparison. Learning Goal 3: Write multiplication equations from word problems indicating multiplicative comparisons and describe multiplication

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		equations as comparisons.
4.OA.A.2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.	SMP.2 Reason abstractly and quantitatively. SMP.3 Construct viable arguments and critique the reasoning of others. SMP.4 Model with mathematics. SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: ➤ multiply to solve word problems involving multiplicative comparison. ➤ divide to solve word problems involving multiplicative comparison. ➤ represent problems with drawings and equations, using a symbol for the unknown number. ➤ distinguish word problems involving multiplicative comparison from those involving additive comparison. Learning Goal 4: Multiply and divide to solve word problems involving multiplicative comparisons and represent these problems with drawings and equations.
4.OA.A.3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including	SMP.4 Model with mathematics.	Concept(s): ➤ Proper use of the equal sign

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problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. *(benchmarked)	SMP.5 Use appropriate tools strategically. SMP.6 Attend to precision.	➤ Improper use of the equal sign (e.g. $3 + 7 = 10 - 5 = 5$ is incorrect) Students are able to: ➤ solve multi-step word problems involving any of the four operations. ➤ solve multi-step word problems involving interpretation (in context) of a remainder. ➤ write equations to represent multi-step word problems, using a letter to represent the unknown quantity. ➤ explain why an answer is reasonable. ➤ use mental computation and estimation strategies to determine whether an answer is reasonable. Learning Goal 4: Write and solve each equation (including any of the four operations) in order to solve multi-step word problems, using a letter to represent the unknown; interpret remainders in context and assess the reasonableness of answers using mental computation with estimation strategies.
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4.OA.B.4. Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.	SMP.2 Reason abstractly and quantitatively. SMP.3 Construct viable arguments and critique the reasoning of others. SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure. SMP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➤ Whole numbers are a multiple of each of its factors. ➤ Prime numbers do not have factors other than 1 and the number itself. Students are able to: ➤ find all factor pairs for any whole number (between 1 and 100). ➤ given a one-digit number, determine whether a given whole number (between 1 and 100) is a multiple of the one-digit number. ➤ determine whether a given whole number (between 1 and 100) is prime or composite. Learning Goal 1: Find all factor pairs for a whole number up to 100 and determine whether it is a multiple of a given 1-digit whole number and whether it is prime or composite.
4.OA.C.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.	SMP.2 Reason abstractly and quantitatively. SMP.3 Construct viable arguments and critique the reasoning of others.	Concept(s): ➤ Patterns contain features that are not explicitly stated in the

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	SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure. SMP.8 Look for and express regularity in repeated reasoning.	rule defining the numerical pattern. Students are able to: ➤ produce number patterns from a given rule. ➤ produce shape patterns from a given rule. ➤ analyze a sequence of numbers in order to identify features that are not obvious explicitly stated in the rule. Learning Goal 2: Generate a number or shape pattern that follows a rule and identify features of the pattern that are not explicit in the rule.
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New Jersey Student Learning Standards: Interdisciplinary Connections

Reading/Language Arts

RL.CR.4.1. Refer to details and examples as textual evidence when explaining what a literary text says explicitly and make relevant connections when drawing inferences from the text.

L.RF.4.4. Read with sufficient accuracy and fluency to support comprehension.

L.VL.4.2. Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

RI.MF.4.6. Use evidence to show how graphics and visuals (e.g., illustrations, charts, graphs, diagrams, timelines, animations) support central ideas.

L.WF.4.2 Demonstrate command of the conventions of encoding and spelling

L.WF.4.3. Demonstrate command of the conventions of writing, including those listed under

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grade three foundational skills:

- A. Use basic paragraphing, including using paragraph indentations and using paragraphs in dialogue.
- B. Place adjectives and adverbs and form comparative and superlative adjectives and adverbs.
- C. Use independent clauses and coordinating conjunctions.
- D. Form irregular verbs; form and use progressive tenses.
- E. Form and use possessive nouns and pronouns.
- F. Capitalize the first word in quotations as appropriate, capitalize other important words (e.g., section headings).
- G. Use underlining, quotation marks, or italics for titles; use quotation marks for direct speech; use comma before a coordinating conjunction in a compound sentence.
- H. Use apostrophes for possession.

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

Core Ideas	Performance Expectations (Identified with Standard Number and statement)
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). 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).

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

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.
Shared features allow for common troubleshooting strategies that can be	8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.

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effective for many systems.	
New Jersey Student Learning Standards: Climate Change Mandate	
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.

Knowledge and Skills
Unit Learning Targets (Objectives): <i>Students will be able to...</i> Content Objectives: ➤ Use multiplication equations to represent the relationship between two numbers in multiplicative comparisons. ➤ Identify multiplication equations as two different ways to describe a product through comparison. ➤ Write and solve equations to represent multiplicative comparison situations described in word problems. ➤ Distinguish between multiplicative and additive comparison in real-world and mathematical contexts. ➤ Use drawings, diagrams, and symbols to represent multiplicative comparison problems and identify when to use multiplication or division. ➤ Use multiplication facts to list all factors of a number and determine whether a number is a multiple of another. ➤ Identify whether a number is prime or composite using knowledge of factors and multiples. ➤ Apply understanding of multiples and factors to solve mathematical problems. ➤ Use rules to generate, extend, and describe number and shape patterns. ➤ Represent number and shape patterns using manipulatives or drawings and explain pattern structures. ➤ Model and solve multi-step word problems using equations with a variable to represent the unknown quantity. ➤ Interpret and explain the meaning of remainders in division word problems. ➤ Use estimation strategies to check for reasonableness of answers in multi-step problems. Language Objectives: ➤ Write multiplication equations to represent multiplicative comparisons between numbers or in word problems. ➤ Describe real-world comparison situations that can be represented by multiplication equations using phrases like <i>times as many</i>.

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- Draw diagrams to represent word problems involving multiplicative comparisons and explain the relationship between quantities.
- Summarize word problems and determine whether to use multiplication or division to solve them.
- List and describe factors and factor pairs of whole numbers.
- Use skip-counting to identify multiples of common numbers (e.g., 2, 5, 10).
- Use diagrams to explain and justify understanding of factors, multiples, prime numbers, and composite numbers.
- Orally define and correctly use key mathematical vocabulary including *factor*, *multiple*, *composite number*, *prime number*, and *factor pair*.
- Extend, describe, and analyze patterns in numbers and shapes using precise language.
- Draw diagrams and write equations with a variable to model multi-step word problems and explain solution steps.
- Discuss and compare different approaches to solving word problems and justify a chosen strategy.
- Explain how a remainder affects the solution of a word problem and determine whether an estimate supports the final answer.

Unit Enduring Understandings:

Students will know...

- Knowing multiplication facts helps you identify the factors of a number.
- You can solve problems involving multiplicative comparisons by using multiplication or division.
- Using rules helps you generate or extend number, shape, or other patterns.

Unit Essential Questions:

- How can multiplication and division help you solve problems involving multiplicative comparisons?
- How does knowing your multiplication facts help you find the factors of a number?
- How can you use rules to create or extend number or shape patterns?

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

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- 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
 - Exit Ticket

Small Group Differentiation

- Prepare
 - Ready Prerequisite Lessons

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- 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
- Games
- Performance Assessment
- Anecdotal Records
- Exit Slips
- Oral Assessment/Conferencing

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- Portfolios/ Journals
- Daily Classwork
- Pre-Assessment

Summative Assessments

- Unit Assessments
- Lesson Quizzes
- Writing Samples

Benchmark Assessments:

- IReady Assessments

Alternative Assessments

- Portfolio review
- Anecdotal Notes

Performance Tasks:

- Project Based Learning Activity

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.

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- 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.
-

Diversity and Inclusion

- Respect and incorporate cultural traditions.
- Provide alternative assignments when appropriate.
- Use visuals and clear, direct language.

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- 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 Classroom Instruction & Practice - Grade 4
- Interactive Tutorials
- Manipulatives
- Brainpop

Supplemental Materials

- Math Center Activities
- Enrichment Activities
- Xtra Math
- Nearpod

Intervention Materials

- Prerequisite Lessons
- Tools for Instruction

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Unit 3 Overview

Content Area: Mathematics

Unit Title: Multi-Digit Operations and Measurement: Multiplication, Division, Perimeter and Area

Duration: 30 Days

Target Course/Grade Level: Grade 4

Introduction/Unit Focus:

In this unit, students will extend their understanding of multi-digit operations and apply these skills to solve real-world problems involving measurement, area, and perimeter. They will strengthen their ability to perform multiplication with larger numbers, including multiplying four-digit numbers by one-digit numbers and two-digit numbers by two-digit numbers. Students will also build fluency in division, working with four-digit dividends and one-digit divisors. These computational skills will support their ability to solve multi-step problems, convert measurement units, and reason about quantities in both standard and metric systems.

A major focus of the unit is the application of these operations to measurement and

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geometry. Students will solve problems that require them to convert larger measurement units to smaller ones, reinforcing their understanding of relative unit sizes and the role of multiplication and division in these conversions. They will also apply formulas to calculate the perimeter and area of rectangles, using dimensions given in word problems or labeled diagrams. Through this work, students will gain confidence in using mathematical formulas and understanding how area and perimeter relate to the attributes of plane figures.

To succeed in this unit, students should already have a solid foundation in place value, properties of operations, and the basic concepts of multiplication and division. They should be comfortable using arrays, area models, and estimation strategies to solve problems and check for reasonableness. Additionally, students should understand how to break down larger units into smaller units and recognize that repeating a unit can be used to determine a measurement. Prior experience with finding the area and perimeter of rectangles, particularly through tiling or visual models, will support deeper understanding as they apply formulas and solve more complex problems.

Overall, this unit provides students with meaningful opportunities to connect arithmetic skills with real-world measurement contexts, strengthening their problem-solving abilities and deepening their mathematical reasoning.

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 well 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.

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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 challenges and opportunities in an interconnected global economy.”

Content Statements

This unit extends students’ understanding of multi-digit operations and measurement.

Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics

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Focus Standards (Major Standards) https://www.nj.gov/education/cccs/		
Content Standards	Suggested Mathematical Practices	Critical Knowledge & Skills
4.NBT.B.5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	SMP.1 Make sense of problems and persevere in solving them. SMP.2 Reason abstractly and quantitatively. SMP.4 Model with mathematics. SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure. SMP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: ➤ multiply a whole number of up to four digits by a one-digit whole number using strategies based on place values. ➤ multiply two two-digit numbers using strategies based on place value. ➤ represent these operations with equations, rectangular arrays, and area models. ➤ explain the calculation by referring to the model (equation, array, or area model). Learning Goal 2: Multiply a whole number of up to four digits by a one-digit whole number and multiply two two-digit numbers; represent and explain calculations using equations, rectangular arrays, and area models.

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4.NBT.B.6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	SMP.1 Make sense of problems and persevere in solving them. SMP.2 Reason abstractly and quantitatively. SMP.4 Model with mathematics. SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure. SMP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: ➤ find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors using strategies based on place value, properties of operations, and the relationship between multiplication and division. ➤ represent these operations with equations, rectangular arrays, and area models. ➤ explain the calculation by referring to the model (equation, array, or area model).
4.M.A.1 Know relative sizes of measurement units within one system of units including km, m, cm, g; lb, oz; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. For example, know that 1 ft is 12 times as long as 1 in. Express length of a 4 foot snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2,24) ...	SMP.4 Model with mathematics. SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure.	Concept(s): ➤ Relative sizes of measurements (e.g. a kilometer is 1000 times as long as a meter and 100,000 times as long as a centimeter). Students are able to: ➤ Express measurements of a larger unit in terms of a smaller unit (within a single measurement system) (e.g. convert hours to minutes, kilometers to centimeters, etc). ➤ generate a two-column table to record measurement equivalents. Learning Goal 3:

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		➤ Express measurement in a larger unit in terms of a smaller unit and record equivalent measures in a two-column table.
4.M.A.3 Apply the area and perimeter formulas for rectangles in real world mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.	SMP.1 Make sense of problems and persevere in solving them. SMP.2 Reason abstractly and quantitatively. SMP.5 Use appropriate tools strategically. SMP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: ➤ solve real world and mathematical problems by finding the area of rectangles using a formula. ➤ solve real world and mathematical problems by finding the perimeter of rectangles using a formula. Learning Goal 5: ➤ Solve real world problems with whole numbers by finding the area and perimeter of rectangles using formulas.

New Jersey Student Learning Standards: Interdisciplinary Connections

Reading/Language Arts

RL.CR.4.1. Refer to details and examples as textual evidence when explaining what a literary text says explicitly and make relevant connections when drawing inferences from the text.

L.RF.4.4. Read with sufficient accuracy and fluency to support comprehension.

L.VL.4.2. Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

RI.MF.4.6. Use evidence to show how graphics and visuals (e.g., illustrations, charts, graphs, diagrams, timelines, animations) support central ideas.

L.WF.4.2 Demonstrate command of the conventions of encoding and spelling

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- L.WF.4.3. Demonstrate command of the conventions of writing, including those listed under grade three foundational skills:
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 - B. Place adjectives and adverbs and form comparative and superlative adjectives and adverbs.
 - C. Use independent clauses and coordinating conjunctions.
 - D. Form irregular verbs; form and use progressive tenses.
 - E. Form and use possessive nouns and pronouns.
 - F. Capitalize the first word in quotations as appropriate, capitalize other important words (e.g., section headings).
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Core Ideas	Performance Expectations (Identified with Standard Number and statement)
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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). 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).

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Shared features allow for common troubleshooting	8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using

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strategies that can be effective for many systems.	common troubleshooting strategies.
New Jersey Student Learning Standards: Climate Change Mandate	
Core Ideas	Performance Expectations (Identified with Standard Number and Statement)
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New Jersey Student Learning Standards: Climate Change Mandate	
Core Ideas	Performance Expectations (Identified with Standard Number and Statement)

Knowledge and Skills	
Unit Learning Targets (Objectives): <i>Students will be able to...</i>	
Content Objectives: ➤ Multiply whole numbers up to four digits by one-digit numbers using strategies such as arrays, area models, and partial products. ➤ Multiply two-digit numbers by two-digit numbers using area models and partial products. ➤ Estimate products to determine the reasonableness of answers. ➤ Identify and convert between different units within the same measurement system using multiplication. ➤ Use multiplication to convert measurements from a larger unit to a smaller unit. ➤ Use conversion tables to show equivalent measurements. ➤ Divide up to three- and four-digit dividends by one-digit divisors, including problems with remainders. ➤ Use rectangular arrays, area models, and partial quotients to solve division problems. ➤ Apply understanding of place value and properties of operations to find quotients. ➤ Use the relationship between multiplication and division to estimate and verify answers. ➤ Use formulas to find the perimeter and area of rectangles in mathematical and real-world contexts. ➤ Solve word problems involving area and perimeter using diagrams or equations.	
Language Objectives: ➤ Read aloud multiplication and division problems clearly and accurately.	

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- Draw and label arrays, base-ten models, and area models to represent multiplication and division problems.
- Write solutions to multiplication problems using partial products, and to division problems using partial quotients.
- Explain how the parts of an array or area model relate to multiplication and division components, including factors, products, dividends, divisors, quotients, and remainders.
- Orally define and use key vocabulary in context, including *factor*, *product*, *partial product*, *dividend*, *divisor*, *quotient*, and *remainder*.
- Describe the multiplicative relationship between different units of measurement using visual models or equations.
- Organize and interpret measurement conversions in tables.
- Use the word *convert* accurately when discussing equivalent measurements.
- Summarize, in writing or discussion, the steps for finding the perimeter or area of a rectangle using words, diagrams, or equations.
- Restate and analyze word problems involving perimeter and area to determine what is being asked and how to solve it.
- Draw diagrams or write equations to represent and solve word problems involving measurement.

Unit Enduring Understandings:

Students will know...

- Understanding place value helps students divide numbers effectively.
- Units of measurement can be broken into smaller units, and knowing their relationships helps convert measurements between larger and smaller units.
- Students can use formulas to calculate the area and perimeter of rectangles.

Unit Essential Questions:

- How can understanding place value help you divide numbers?
- How can you use your knowledge of place value to multiply multi-digit numbers?
- How do you divide units of measurement into smaller units?
- Why is it important to understand how measurement units relate to each other when converting between larger and smaller units?
- How can you use formulas to find the area and perimeter of a rectangle?

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.

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Whole Group Instruction

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 - Try
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 - Math Journal
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 - Exit Ticket

Small Group Differentiation

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

- iReady online personalized instruction generated from iReady Diagnostic assessment
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Evidence of Student Learning

Formative Assessments:

- Teacher Observation
- Games
- Performance Assessment
- Anecdotal Records

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- Exit Slips
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- Portfolios/Journals
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- Pre-Assessment

Summative Assessments

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- 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.

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- 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.
-

Diversity and Inclusion

- Respect and incorporate cultural traditions.

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- 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 Classroom Instruction & Practice - Grade 4
- Interactive Tutorials
- Manipulatives
- Brainpop

Supplemental Materials

- Math Center Activities
- Enrichment Activities
- Xtra Math
- Nearpod

Intervention Materials

- Prerequisite Lessons
- Tools for Instruction

**OCEAN ACADEMY CHARTER SCHOOL
Unit 4 Overview**

Content Area: Mathematics

Unit Title: Fractions, Decimals, and Measurement: Addition, Subtraction, and Multiplication

Duration: 60 Days

Target Course/Grade Level: Grade 4

Introduction/Unit Focus:

This unit introduces students to operations with fractions and decimals, building on their prior understanding of fraction concepts and extending their ability to work with more complex fractional and decimal forms. Students will explore comparing fractions using visual models and multiple strategies, deepen their understanding of fraction equivalence, and learn to decompose fractions greater than one. They will add and subtract mixed numbers with like denominators and represent fractions as data on line plots. Additionally, students will multiply fractions by whole numbers and develop fluency in expressing tenths and hundredths as equivalent fractions, connecting fractional and decimal notations. They will

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also compare decimals to the hundredths place and apply the four operations with whole numbers to solve real-world problems involving fractions and decimals.

Throughout this unit, students will represent and interpret data, extend their understanding of fraction equivalence and ordering, and build fractions from unit fractions. They will become familiar with decimal notation for fractions and compare decimal fractions to better understand the relationships between fractions and decimals. Skills such as comparing fractions with unlike denominators, adding and subtracting fractions and mixed numbers, multiplying fractions by whole numbers, and converting between decimals and fractions will be developed through a variety of problem-solving contexts including time, money, length, liquid volume, mass, and weight.

To engage successfully with this content, students should already be comfortable representing fractions with common denominators on number lines and using visual models. They should understand how to identify, create, and explain equivalent fractions, express whole numbers as fractions, and compare fractions with the same numerators or denominators. A solid grasp of basic addition and subtraction facts, the meaning of fractions, and the roles of numerators and denominators is essential. Students should have experience composing and decomposing fractions, adding and subtracting fractions with like denominators, and creating line plots that display fractional data. Additionally, prior familiarity with multiplication as repeated addition, basic multiplication facts, and writing and solving equations will support their work with multiplying fractions and connecting fractions to decimals. Understanding place value and the relationships between tenths and hundredths is also crucial for making sense of decimal notation and comparisons.

Overall, this unit provides a rich opportunity for students to deepen their fraction and decimal knowledge, develop fluency with fraction operations, and connect these concepts to real-world applications and data interpretation. It builds on foundational skills to support students' growing confidence and mathematical reasoning in working with numbers beyond whole numbers.

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 well informed about postsecondary and career options, career planning, and career requirements.

Standard 9.4 Life Literacies and Key Skills

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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, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving,

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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 operations with fractions and decimals.

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
4.NF.A.1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	MP.2 Reason abstractly and quantitatively. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): Equivalent fractions are the same size while the number and size of the parts differ. Students are able to: ➤ explain, using visual fraction models, why two fractions are equivalent. ➤ generate equivalent fractions, using fraction a/b as equivalent to a fraction $(n \times a)/(n \times b)$. Learning Goal: Recognize and generate equivalent fractions and explain why they are equivalent using visual fraction models.
4.NF.A.2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): ➤ Fractions may only be compared when the

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numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	MP.7 Look for and make use of structure.	two fractions refer to the same whole. Students are able to: ➤ create common denominators in order to compare two fractions. ➤ create common numerators in order to compare two fractions. ➤ compare two fractions with different numerators and different denominators by comparing to a benchmark fraction. ➤ record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model. Learning Goal: Compare two fractions with different numerators or different denominators, recording comparison with $>$, $=$, or $<$, and justifying the conclusion using visual fraction models.
4.NF.B.3. Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$. 4.NF.B.3c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed	MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): ➤ Some fractions can be decomposed. ➤ Addition/subtraction of fractions is joining/separating

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number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. 4.NF.B.3d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.	MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	parts referring to the same whole. Students are able to: ➤ add and subtract fractions having like denominators in order to solve real world problems. ➤ develop visual fraction models and write equations to represent real world problems involving addition and subtraction of fractions. ➤ add and subtract mixed numbers with like denominators. Learning Goal: Add and subtract mixed numbers with like denominators by replacing each mixed number with an equivalent fraction or improper fraction. Learning Goal : Solve word problems involving addition and subtraction of fractions having like denominators using visual fraction models and equations to represent the problem.
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4.DL.B.5 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using the information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.	MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	
4.NF.B.4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. 44.NF.B.4a. Understand a fraction a/b as a multiple of $1/b$. <i>For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</i> 4.F.4.B.4b. Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. <i>For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)</i> 4.NF.B.4. Apply and extend previous understandings of	MP.2 Reason abstractly and quantitatively. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➤ Fraction Multiplication: any fraction a/b as a multiple of fraction $1/b$. ➤ Fraction Multiplication: any multiple of fraction a/b is also a multiple of fraction $1/b$. Students are able to: ➤ represent a/b as a x ($1/b$) using a visual fraction model. ➤ represent $n \times (a/b)$ as $(n \times a)/b$ in a visual fraction model. ➤ multiply a fraction by a whole number. ➤ solve real world problems by multiplying a fraction by a whole number, using visual fraction models and equations

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multiplication to multiply a fraction by a whole number. 4.NF.4.B.4c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.		to represent the problem. Learning Goal: Multiply a fraction by a whole number using visual fraction models and equations, demonstrating a fraction a/b as a multiple of $1/b$. Learning Goal: Multiply a fraction by a whole number, using a visual fraction model and equations to demonstrate that a multiple of a/b is the product of $1/b$ and a whole number. Learning Goal: Solve 1-step word problems involving multiplication of a fraction by a whole number, using visual fraction models and equations to represent the problem
4.NF.C.5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. <i>example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.</i>	MP.3 Construct viable arguments and critique the reasoning of others. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	Concept(s): ➤ Equivalent Fractions Students are able to: ➤ add two fractions with respective denominators of 10 and 100 using equivalent fractions.

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		Learning Goal: Add two fractions with respective denominators of 10 and 100 by writing each fraction with denominator 100.
4.NF.C.6. Use decimal notation for fractions with denominators 10 or 100. <i>For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</i>	MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➤ Relationship between place value (decimals) and fraction Students are able to: ➤ write a decimal as a fraction with a denominator of 10 or 100. Learning Goal: Given decimal notation, write fractions with denominators of 10 or 100.
4.NF.C.7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.	MP.2 Reason abstractly and quantitatively. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: ➤ represent a decimal using a model. ➤ compare two decimals to hundredths by reasoning about their size. ➤ explain that comparisons are valid only when the two decimals refer to the same whole.

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		➤ record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions (e.g., by using a visual model). Learning Goal: Compare two decimals to hundredths by reasoning about their size, demonstrating that comparisons are valid only when the two decimals refer to the same whole; record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.
4.M.A.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: ➤ solve word problems (using addition, subtraction and multiplication) involving distances, intervals of time, liquid volumes, masses of objects,

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using diagrams such as number line diagrams that feature a measurement scale.	MP.8 Look for and express regularity in repeated reasoning.	and money, including problems involving simple fractions or decimals. ➤ solve word problems (using all four operations) involving whole number distances, intervals of time, liquid volumes, masses of objects, and money, including problems requiring expressing measurements given in a larger measurement unit in terms of a smaller measurement unit (conversion). ➤ construct diagrams (e.g. number line diagrams) to represent measurement quantities. Learning Goal: Solve word problems involving simple fractions or decimals that incorporate measurement comparisons of like units (including problems that require measurements given in a larger unit in
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		terms of a smaller unit).
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New Jersey Student Learning Standards: Interdisciplinary Connections

Reading/Language Arts

RL.CR.4.1. Refer to details and examples as textual evidence when explaining what a literary text says explicitly and make relevant connections when drawing inferences from the text.

L.RF.4.4. Read with sufficient accuracy and fluency to support comprehension.

L.VL.4.2. Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

RI.MF.4.6. Use evidence to show how graphics and visuals (e.g., illustrations, charts, graphs, diagrams, timelines, animations) support central ideas.

L.WF.4.2 Demonstrate command of the conventions of encoding and spelling

L.WF.4.3. Demonstrate command of the conventions of writing, including those listed under grade three foundational skills:

- A. Use basic paragraphing, including using paragraph indentations and using paragraphs in dialogue.
- B. Place adjectives and adverbs and form comparative and superlative adjectives and adverbs.
- C. Use independent clauses and coordinating conjunctions.
- D. Form irregular verbs; form and use progressive tenses.
- E. Form and use possessive nouns and pronouns.
- F. Capitalize the first word in quotations as appropriate, capitalize other important words (e.g., section headings).
- G. Use underlining, quotation marks, or italics for titles; use quotation marks for direct speech; use comma before a coordinating conjunction in a compound sentence.
- H. Use apostrophes for possession.

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

Core Ideas	Performance Expectations (Identified with Standard Number and statement)
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	9.4.5.CT.1: Identify and gather relevant data that will aid in

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problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.	the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2). 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).
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New Jersey Student Learning Standards: [Computer Science and Design Thinking Articulation Guide](#)

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.
Shared features allow for common troubleshooting strategies that can be effective for many systems.	8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.

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

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.

Knowledge and Skills

Unit Learning Targets (Objectives):

Students will be able to...

Content Objectives:

- Understand the value of a fraction and represent fractions using models.
- Use visual models, multiplication, and division to demonstrate and find equivalent fractions.
- Compare fractions with unlike numerators and denominators using models, benchmark fractions, and common denominators.
- Recognize that fractions being compared must refer to the same whole.

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- Add and subtract fractions with like denominators using models, number lines, and equations.
- Decompose fractions in more than one way as a sum of fractions with the same denominator.
- Add and subtract mixed numbers with like denominators.
- Rewrite mixed numbers as improper fractions and improper fractions as mixed numbers.
- Create and interpret line plots with fractional data.
- Solve addition and subtraction problems using data presented in line plots.
- Multiply fractions by whole numbers using repeated addition and models.
- Solve word problems involving multiplication of a fraction by a whole number.
- Understand and represent tenths and hundredths as fractions and as decimals.
- Add fractions with denominators of 10 and 100 and convert tenths to hundredths.
- Convert fractions with denominators of 10 or 100 into decimals and vice versa.
- Locate decimals on a number line and represent them with hundredths grids and place-value charts.
- Compare decimals to the hundredths using place value understanding and symbols ($<$, $>$, $=$).
- Solve real-world problems involving time and money, including conversions and equations.
- Convert between larger and smaller units of time and money using multiplication and division.
- Solve problems involving length, liquid volume, mass, and weight, using appropriate measurement conversions and equations.

Language Objectives:

- Draw and explain different fraction models to show equivalency and value.
- Use mathematical vocabulary such as *numerator*, *denominator*, *fraction*, and *equivalent fractions* in discussions and reasoning.
- Write and speak clearly using comparison symbols ($<$, $>$, $=$) when comparing fractions and decimals.
- Explain how benchmark fractions like $\frac{1}{2}$ can help compare fractions.
- Use number lines and area models to demonstrate fraction addition and subtraction.
- Describe and discuss fraction operations using terms like *unit fraction*, *equal parts*, *add*, *subtract*, and *decompose*.
- Create and interpret line plots with fractional data and explain their meaning orally or in writing.
- Restate and solve word problems involving multiplication of fractions and whole numbers using diagrams and equations.
- Use repeated addition to explain how to multiply a fraction by a whole number.
- Represent relationships between tenths and hundredths using equations and models.
- Use place-value charts and hundredths grids to write and read decimals as fractions and vice versa.
- Read decimals as fractions or mixed numbers, using correct terminology such as *decimal point*.
- Compare decimals using visual models and place value understanding; justify

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comparisons through discussion or written explanations.

- Summarize and restate word problems involving decimals, time, money, and measurements, and identify appropriate operations.
- Use mathematical language to describe relationships between units (e.g., minutes to hours, dollars to cents).
- Draw diagrams and write equations to represent and solve real-world problems involving time, money, and measurement.
- Define and use key terms in measurement such as *length*, *mass*, *volume*, *convert*, and *equivalent units* when solving and discussing problems.

Unit Enduring Understandings:

Students will know...

- Students use their understanding of whole numbers to represent, build, and break apart fractions to solve problems.
- Students apply their knowledge of fractions to write and compare decimals.

Unit Essential Questions:

- How can you use your understanding of whole numbers to represent, build, and break apart fractions when solving problems?
- How does knowing that fractions operate like whole numbers help you add, subtract, multiply, and compare them?
- How can your knowledge of fractions help you write and order decimals?

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

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- 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

Independent Learning

- iReady online personalized instruction generated from iReady Diagnostic assessment
- Fluency and skills practice
- Interactive Tutorials (Lesson, Prerequisite, or Extend)

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- 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

- Unit Assessments
- Lesson Quizzes
- Writing Samples

Benchmark Assessments:

- IReady Assessments

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Alternative Assessments

- Portfolio review
- Anecdotal Notes

Performance Tasks:

- Project Based Learning Activity

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.
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Students with 504 Plans

- Follow the 504 plan.
 - Provide extra time for assignments/tests.
 - Offer small-group settings.
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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.

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- Break down multi-step tasks into smaller parts.
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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.
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Multilingual Learners

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 - 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 Classroom Instruction & Practice - Grade 4
- Interactive Tutorials
- Manipulatives
- Brainpop

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Supplemental Materials

- Math Center Activities
- Enrichment Activities
- Xtra Math
- Nearpod

Intervention Materials

- Prerequisite Lessons
- Tools for Instruction

OCEAN ACADEMY CHARTER SCHOOL Unit 5 Overview	
Content Area: Mathematics	
Unit Title: Geometry and Measurement: Figures, Classification and Symmetry	Duration: 30 Days
Target Course/Grade Level: Grade 4	
Introduction/Unit Focus: This unit introduces students to key geometry and measurement concepts that build a foundational understanding of shapes and their properties. Students will explore points, lines, line segments, rays, and angles as basic geometric figures, and learn how to classify shapes based on their attributes. By developing an understanding of benchmark angles, students will gain the ability to estimate angle sizes and measure them accurately using a protractor. This knowledge will also enable students to apply concepts of parallel and perpendicular lines to classify and describe two-dimensional figures. Throughout the unit, students will practice drawing and identifying various types of lines and angles and use these to classify shapes by the properties of their sides and angles. They will measure angles with precision and solve problems involving the addition and subtraction of angle measures. In addition, students will identify and draw lines of symmetry within shapes, enhancing their understanding of geometric balance and structure. This work will deepen their ability to analyze and categorize figures such as squares, rectangles, and other quadrilaterals based on their sides, angles, and symmetry. To successfully engage with this unit, students should already be familiar with two-dimensional figures and their attributes, including the ability to draw and compare these figures. They should recognize angles as geometric figures and be able to identify acute, right, and obtuse angles. Prior experience with the relationship between angles and circles, as well as measuring and drawing angles, will support their progress. Additionally, students should know how to identify and draw parallel and perpendicular lines both in isolation and within two-dimensional shapes. Understanding how to classify quadrilaterals based on sides	

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and right angles will further prepare students for the geometric reasoning emphasized in this unit.

Overall, this unit provides a comprehensive introduction to geometry and geometric measurement. It helps students develop both conceptual understanding and practical skills in analyzing shapes, measuring angles, and exploring symmetry, laying the groundwork for more advanced geometric thinking in later grades.

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 well 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 extends students’ understanding of adding and subtracting whole numbers.

Standards/Learning Targets: New Jersey Student Learning Standards for Mathematics

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

Content Standards	Suggested Mathematical Practices	Critical Knowledge & Skills
4.G.A.1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision	Concept(s): No new concept(s) introduced Students are able to: ➤ draw points, lines, line segments and rays. ➤ draw angles (right, acute, obtuse).

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		➤ draw perpendicular and parallel lines. ➤ distinguish between lines, line segments, and rays. ➤ identify points, lines, line segment, rays, right angles, acute angles, obtuse angles, perpendicular lines and parallel lines in two-dimensional figures. Learning Goal 1: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines and identify these in two-dimensional figures.
4.M.B.4. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. 4.M.B.4a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a “one-degree angle,” and can be used to measure angles.	MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision MP.7 Look for and make use of structure.	Concept(s): ➤ Angles are formed by two rays sharing a common endpoint and result from the rotation of one ray around the endpoint. ➤ Angle Measurement: An angle that turns through n one-degree angles is said to have an angle measure of n degrees. Students are able to: ➤ describe an angle as measured with

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4.M.B.4b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.		reference to a circle with the center of the circle being the common endpoint of the rays. ➤ explain a ‘one-degree angle’ and its relation to a circle; a “degree” is defined as $\frac{1}{360}$ (one degree angle) of the entire circle. Learning Goal 4: Explain angles as geometric shapes formed by two rays sharing a common endpoint and explain the relationship between a one-degree angle, a circle, and angle measure.
4.M.B.5. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	MP.2 Reason abstractly and quantitatively. MP.5 Use appropriate tools strategically. MP.6 Attend to precision MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: ➤ measure angles in whole-number degrees. ➤ given an angle measure, sketch the angle. Learning Goal 5: Measure angles in whole number degrees using a protractor and sketch angles of specific measures.
4.M.B.6 Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the	MP.1 Make sense of problems and persevere in solving them.	Concept(s): ➤ Angle measures may be added; when an angle is decomposed into

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angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.	MP.2 Reason abstractly and quantitatively. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	non-overlapping parts, the angle measure of the whole (original angle) is the sum of the angle measures of the parts. Students are able to: ➤ add and subtract to find unknown angles on a diagram in real world and mathematical problems. ➤ write an equation with a symbol for the unknown angle measure. Learning Goal 6: Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems using a symbol for an unknown angle measure.
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**New Jersey Student Learning Standards: Interdisciplinary Connections
(Reading/Language Arts and Technology)**

Reading/Language Arts

RL.CR.4.1. Refer to details and examples as textual evidence when explaining what a literary text says explicitly and make relevant connections when drawing inferences from the text.

L.RF.4.4. Read with sufficient accuracy and fluency to support comprehension.

L.VL.4.2. Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

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RI.MF.4.6. Use evidence to show how graphics and visuals (e.g., illustrations, charts, graphs, diagrams, timelines, animations) support central ideas.

L.WF.4.2 Demonstrate command of the conventions of encoding and spelling

L.WF.4.3. Demonstrate command of the conventions of writing, including those listed under grade three foundational skills:

- A. Use basic paragraphing, including using paragraph indentations and using paragraphs in dialogue.
- B. Place adjectives and adverbs and form comparative and superlative adjectives and adverbs.
- C. Use independent clauses and coordinating conjunctions.
- D. Form irregular verbs; form and use progressive tenses.
- E. Form and use possessive nouns and pronouns.
- F. Capitalize the first word in quotations as appropriate, capitalize other important words (e.g., section headings).
- G. Use underlining, quotation marks, or italics for titles; use quotation marks for direct speech; use comma before a coordinating conjunction in a compound sentence.
- H. Use apostrophes for possession.

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

Core Ideas	Performance Expectations (Identified with Standard Number and statement)
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). 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).

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

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.

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Shared features allow for common troubleshooting strategies that can be effective for many systems.	8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.
New Jersey Student Learning Standards: Climate Change Mandate	
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.

Knowledge and Skills

Unit Learning Targets (Objectives):

Students will be able to...

Content Objectives:

- Identify and draw geometric elements including points, lines, line segments, rays, and angles, and locate them within two-dimensional figures.
- Recognize and classify angles as acute, right, or obtuse within two-dimensional figures.
- Identify and draw parallel and perpendicular lines and distinguish between the two in geometric figures.
- Understand that angles are formed by a rotation around a point and relate to a portion of a circle.
- Use a protractor to measure angles and draw angles of specific measures.
- Estimate angle measures using benchmark angles (e.g., 90° , 180° , 360°).
- Decompose larger angles into smaller angles and combine smaller angles to form larger ones.
- Add and subtract angle measures to find unknown values.
- Solve real-world and mathematical problems involving angle measurement using addition and subtraction.
- Classify two-dimensional figures based on their properties, such as parallel and perpendicular sides and types of angles.
- Classify triangles by side lengths (equilateral, isosceles, scalene) and angle types (acute, right, obtuse).
- Identify and draw lines of symmetry in two-dimensional figures.
- Recognize and describe symmetrical figures and their characteristics.

Language Objectives:

- Identify and describe points, lines, line segments, rays, and angles in written and verbal explanations.
- Draw and label geometric elements, including parallel and perpendicular lines and different types of angles.

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- Use precise vocabulary such as *point*, *line*, *ray*, *angle*, *right angle*, *acute angle*, *obtuse angle*, *parallel*, *perpendicular*, and *vertex* when communicating mathematical reasoning.
- Describe full, half, and quarter turns using terms like *degrees* and *protractor* when discussing angle measurement.
- Record and compare angle measures, and describe how they relate to right angles or straight lines.
- List known and unknown angle measures from a diagram and explain how to use addition or subtraction to solve for unknown angles.
- Write and explain equations that represent problems involving angle measures.
- Describe two-dimensional figures using properties such as types of sides and angles.
- Use terms such as *equilateral*, *isosceles*, *scalene*, *acute triangle*, *right triangle*, and *obtuse triangle* accurately in discussions.
- Explain how to sort and classify shapes into groups based on attributes.
- Draw and describe lines of symmetry in two-dimensional figures.
- Engage in discussions about symmetry by listening to others' ideas, offering justifications, and agreeing or disagreeing respectfully.

Unit Enduring Understandings:

Students will know...

- Points, lines, line segments, rays, and angles are basic geometric figures that help classify shapes based on their attributes.
- Students use knowledge of benchmark angles to estimate angle sizes and measure them accurately with a protractor.
- Understanding angles, along with parallel and perpendicular lines, helps students classify geometric figures.

Unit Essential Questions:

- How can you use benchmark angles or a protractor to estimate or measure angle sizes?
- Can you identify points, lines, rays, and angles?
- How do angles and parallel or perpendicular lines help you classify figures?
- How does understanding these geometric figures help you classify shapes based on their attributes?

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

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- 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
 - Exit Ticket

Small Group Differentiation

- Prepare
 - Ready Prerequisite Lessons
- Reteach

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

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- Daily Classwork
- Pre-Assessment

Summative Assessments

- Unit Assessments
- Lesson Quizzes
- Writing Samples

Benchmark Assessments:

- IReady Assessments

Alternative Assessments

- Portfolio review
- Anecdotal Notes

Performance Tasks:

- Project Based Learning Activity

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.
 - 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.

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- Build strong connections with families and caregivers.

Supplemental Resources

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