

**WEYMOUTH TOWNSHIP MATHEMATICS
CURRICULUM**

Content Area: Mathematics

Course Title: Elementary School

Grade Level: 4

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

**September-October
Ongoing**

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

**November/December
Ongoing**

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

**January/February
Ongoing**

**Unit 4 Plan:
Measurement and Data**

**March/April
Ongoing**

**Unit 5 Plan:
Geometry**

**May/June
Ongoing**

Date Created:

August, 2022

Revised:

Board Approved on:

August 2023

Gr –4th Grade Unit 1-Operations and Algebraic Thinking

Unit Overview

Content topic and skill focus: Operations and Algebraic Thinking

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

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

Standard MA.4.OA.A.1, MA.4.OA.A.2, MA.4.OA.A.3, MA.4.OA.B.4, MA.4.OA.C.5

Content Statement: Students will use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. Students will write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. Students will form ordered pairs consisting of corresponding terms from two patterns, and graph the ordered pairs on a coordinate plane.

Instructional Focus: Operations and Algebraic Thinking

Lesson #: Sections 2.5, 3.1, 3.10, 4.8, 5.9, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 12.4

Essential Questions:

- How to use the problem-solving plan to solve two-step addition and subtraction word problems.
- How to use multiplication to compare two numbers.
- How to solve multi-step word problems involving multiplication.
- How to solve multi-step word problems involving two-digit multiplication.
- How to solve multi-step word problems involving division.
- How to use models to find factor pairs.
- How to use division to find factor pairs.
- How to understand the relationship between factors and multiples.
- How to tell whether a given number is prime or composite.
- How to create and describe number patterns.
- How to create and describe shape patterns.
- How to solve multi-step word problems involving perimeter or area.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.4.OA (Domain) - Operations and Algebraic Thinking
- MA.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.
 - 3.1 Understand Multiplicative Comparisons
- MA.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.
 - 3.1 Understand Multiplicative Comparisons
- MA.4.OA.A.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including 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.
 - 2.5 Problem Solving: Addition and Subtraction, 3.10 Problem Solving: Multiplication, 4.8 Problem Solving: Multiplication with Two-Digit Numbers, 5.9 Problem Solving: Division, 12.4 Problem Solving: perimeter and Area
- MA.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

<p>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.</p> <ul style="list-style-type: none"> ○ 6.1 Understand Factors, 6.2 Factors and Divisibility, 6.3 Relate Factors and Multiples, 6.4 Identify prime and Composite Numbers ● MA.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. <ul style="list-style-type: none"> ○ 6.5 Number Patterns, 6.6 Shape Patterns 	
<p>Suggested Activities</p> <ul style="list-style-type: none"> ● Introduction videos ● IXL ● Graphic organizers ● Scavenger hunts ● Flash cards ● My Dear Aunt Sally Game ● Online textbook lesson ● Online questions correlated to textbook ● Stem videos 	<p>Instructional Materials/Resources</p> <ul style="list-style-type: none"> ● Big Ideas Math Textbook copyright 2022 ● Big Ideas record and practice journal ● Big Ideas resource by chapter workbook ● Big Ideas skills review handbook ● Teacher made materials ● Instructional videos ● Quizzes ● Online chapter review ● Online practice test ● Online test ● Cumulative assessments ● Benchmark tests ● Performance assessment
<p>Pacing: approx # of class periods: 15</p>	

NJ Student Learning Standards for Math: MA.4.OA.A.1, MA.4.OA.A.2, MA.4.OA.B.4, MA.4.OA.C.5

Interdisciplinary Connections

Language Arts Literacy LA.RL.4.1, LA.RI.4.4, LA.RF.4.4.C, LA.W.4.1.A, LA.W.4.1.B, LA.W.4.2.A, LA.W.4.2.B, LA.W.4.2.C, LA.W.4.2.D, LA.W.4.2.F, LA.W.4.4, LA.L.4.2.B, LA.4.3.A, LA.L.4.4.C, LA.L.4.6

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

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

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

Integration of Technology

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

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

21st Century Life and Career Skills

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

Evidence of Learning

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

Instructional Delivery

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

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

Differentiated Instruction, Accommodations & Adaptations

- | | |
|---|--|
| <ul style="list-style-type: none"> Alternative Assessments Goal Setting with Students Homework Options Frequent Breaks Tests Read Aloud Color Coded Assignments/books/notebooks/folders | <ul style="list-style-type: none"> Cooperative Learning Picture Vocabulary Wall Anchor Charts of Concepts Change in Content, Process, Product Flexible Grouping Modified Class Assignments |
|---|--|

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

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

- | | |
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| <ul style="list-style-type: none">• Take frequent breaks, such as after completing a worksheet | |
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Internet Resources

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

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

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

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

Internet4classrooms https://www.internet4classrooms.com/skills_6th.htm

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

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

Gr –4th Grade Unit 2-Number and Operations in Base Ten

Unit Overview

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

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

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

Standard MA.4.NBT.A.1, MA.4.NBT.A.2, MA.4.NBT.A.3, MA.4.NBT.A.3, MA.4.NBT.B.4, MA.4.NBT.B.5, MA.4.NBT.B.6

Content Statement: Students recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1/10$ of what it represents in the place to its left. Students explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and plain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Students will read, write, and compare decimals to thousandths. Students will use place value understanding to round decimals to any place. Students fluently multiply multi-digit whole numbers using the standard algorithm. Students find whole-number quotients of whole numbers up to four-digit dividends and two-digit divisors, using strategies based on place value, properties of operations, and/or the relationship between multiplication and division. Students will add, subtract, multiply, and divide decimals to hundredths.

Instructional Focus: Number and Operations in Base Ten

Lesson #: Sections 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9

Essential Questions:

- How to identify the values of digits in multi-digit numbers.
- How to read and write multi-digit numbers in different forms.
- How to use place value to compare two multi-digit numbers.
- How to use place value to round multi-digit numbers.
- How to use rounding to estimate sums and differences.
- How to add multi-digit numbers and check whether the sum is reasonable.
- How to subtract multi-digit numbers and check my answer.
- How to use strategies to add and subtract multi-digit numbers.
- How to use the problem-solving plan to solve two-step addition and subtraction word problems.
- How to use place value to multiply by tens, hundreds, or thousands.
- How to use rounding to estimate products.
- How to use the Distributive Property to multiply.

- How to use Expanded Form and the Distributive Property to multiply.
- How to use place value and partial products to multiply.
- How to multiply two-digit numbers by one-digit numbers.
- How to multiply multi-digit numbers by one-digit numbers.
- How to use properties to multiply.
- How to solve multi-step word problems involving multiplication.
- How to use place value and properties to multiply by multiples of ten.
- How to use rounding and compatible numbers to estimate products.
- How to use area models and partial products to multiply.
- How to use area models and the Distributive Property to multiply.
- How to use place value and partial products to multiply.
- How to multiply two-digit numbers.
- How to use strategies to multiply two-digit numbers.
- How to solve multi-step word problems involving two-digit multiplication.
- How to use place value to divide tens, hundreds, or thousands.
- How to use division facts and compatible numbers to estimate quotients.
- How to use models to find quotients and remainders.
- How to use partial quotients to divide.
- How to use partial quotients to divide and find remainders.
- How to divide two-digit numbers by one-digit numbers.
- How to divide multi-digit numbers by one-digit numbers.
- How to divide by one-digit numbers.
- How to solve multi-step word problems involving division.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.4.NBT (Domain) Number and Operations in Base Ten
- MA.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.
 - 1.1 Understanding Place Value, 3.2 Multiply Tens, Hundreds, and Thousands, 5.1 Divide tens, Hundreds, and Thousands
- MA.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 meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
 - 1.1 Understanding Place Value, 1.2 Read and Write Multi-Digit Numbers, 1.3 Compare Multi-Digit Numbers
- MA.4.NBT.A.3 Use place value understanding to round multi-digit whole numbers to any place.
 - 1.4 Round Multi-Digit Numbers, 2.1 Estimate Sums And Differences, 3.3 Estimate Products by Rounding, 4.2 Estimate Products
- MA.4.NBT.B.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.
 - 2.1 Estimate Sums and Differences, 2.2 Add Multi-Digit Numbers, 2.3 Subtract Multi-Digit Numbers, 2.4 Use Strategies to add and Subtract, 2.5 Problem Solving: Addition and Subtraction
- MA.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.
 - 3.2 Multiply Tens, Hundreds, and Thousands, 3.3 Estimate Products by Rounding, 3.4 Use the Distributive Property to Multiply, 3.5 Use Expanded Form to Multiply, 3.6 Use Partial products to Multiply, 3.7 Multiply Two-Digit Numbers by One-Digit Numbers, 3.8 Multiply Three and Four-Digit Numbers by One-Digit Numbers, 3.9 Use properties to Multiply, 3.10 Problem Solving: Multiplication, 4.1 Multiply Tens, 4.2 Estimate Products, 4.3 Use Area Models to Multiply Two-Digit Numbers, 4.4 Use the

<p>Distributive Property to Multiply Two-Digit Numbers, 4.5 Use Partial Products to Multiply Two-Digit Numbers. 4.6 Multiply Two-Digit Numbers, 4.7 Practice Multiplication Strategies 4.8 Problem Solving: Multiplication with Two-Digit Numbers</p> <ul style="list-style-type: none"> ● MA.4.NBT.B.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. <ul style="list-style-type: none"> ○ 5.1 Divide Tens, Hundreds, and Thousands, 5.2 Estimate Quotients, 5.3 Understand Division and Remainders, 5.4 Use Partial Quotients, 5.5 Use Partial Quotients with a Remainder, 5.6 Divide Two-Digit Numbers by One-Digit Numbers, 5.7 Divide Multi-Digit Numbers by One-Digit Numbers, 5.8 Divide by One-Digit Numbers 5.9 Problem Solving: Division 	
<p>Suggested Activities</p> <ul style="list-style-type: none"> ● Introduction videos ● IXL ● Graphic organizers ● Scavenger hunts ● Flash cards ● My Dear Aunt Sally Game ● Online textbook lesson ● Online questions correlated to textbook ● Stem videos 	<p>Instructional Materials/Resources</p> <ul style="list-style-type: none"> ● Big Ideas Math Textbook copyright 2022 ● Big Ideas record and practice journal ● Big Ideas resource by chapter workbook ● Big Ideas skills review handbook ● Teacher made materials ● Instructional videos ● Quizzes ● Online chapter review ● Online practice test ● Online test ● Cumulative assessments ● Benchmark tests ● Performance assessment
<p>Pacing: approx # of class periods: 38</p>	

NJ Student Learning Standards for Math: MA.4.NBT.A.1, MA.4.NBT.A.2, MA.4.NBT.A.3, MA.4.NBT.A.3, MA.4.NBT.B.4, MA.4.NBT.B.5, MA.4.NBT.B.6

Interdisciplinary Connections

Language Arts Literacy LA.RL.5.1, LA.RI.5.4, LA.RF.5.4.C, LA.W.5.1.A, LA.W.5.1.B, LA.W.5.2.A, LA.W.5.2.B, LA.W.5.2.C, LA.W.5.2.D, LA.W.5.2.F, LA.W.5.4, LA.L.5.2.B, LA.5.3.A, LA.L.5.4.C, LA.L.5.6

Career Readiness-Personal Financial Literacy PFL.9.1.8.CDM.1, PFL.9.1.8.CDM.2, PFL.9.1.8.CDM.3., PFL.9.1.8.CP.1, PFL.9.1.8.CP.1, PFL.9.1.8.FI.4

Career Awareness, Exploration, and Training WRK.9.2.8.CAP.3

Life Literacy and Key Skills TECH.9.4.8.CT.1, TECH.9.4.8.IML.4, TECH.9.4.8.TL.1, TECH. 9.4.8.TL.2, TECH. 9.4.8.TL.3

Integration of Technology

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

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

21st Century Life and Career Skills

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

Evidence of Learning

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

Instructional Delivery

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

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

Differentiated Instruction, Accommodations & Adaptations

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

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

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

Presentation accommodations (changes the way information is presented)

- Listen to audio recordings instead of reading text
- Learn content from videos, and digital media instead of reading print versions
- Work with fewer items per page or line
- Have a “designated reader”—someone who reads test questions aloud to
- Hear instructions spoken aloud
- Get class notes from teacher
- See an outline of a lesson
- Use visual presentations of verbal material, such as word webs
- Get a written list of instructions

Response accommodations (changes the way kids complete assignments or tests)

- Give responses in a form (spoken or written) that’s easier for them
- Dictate answers to a scribe who writes or types
- Use a spelling dictionary or digital spell-checker
- Use a laptop to type notes or give answers in class
- Use a calculator or table of “math facts”

Setting accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where they learn best (for example, near the teacher)
- Adjust lighting in the classroom
- Take a test in a small group setting

Timing accommodations

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

Common Modifications

Assignment modifications

- Complete fewer or different homework problems than peers
- Write shorter answers to questions
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum modifications

- Learn different material (such as continuing to work on multiplication while classmates move on to fractions)
- Get graded or assessed using a different standard than other students
- Be excused from particular projects

Scheduling accommodations

- Take more time to complete a project
- Take a test in several sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization skills accommodations

- Mark notes with a highlighter
- Use a planner or organizer to help coordinate assignments
- Receive organizational skills instruction

Internet Resources

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

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

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

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

Internet4classrooms https://www.internet4classrooms.com/skills_6th.htm

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

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

Gr –4th Grade Unit 3-Number and Operations-Fractions

Unit Overview

Content topic and skill focus: Number and Operations-Fractions

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

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

Standard MA.4.NF.A.1, MA.4.NF.A.2, MA.4.NF.B.3a, MA.4.NF.B.3b, MA.4.NF.B.3c, MA.4.NF.B.3d, MA.4.NF.B.4a, MA.4.NF.B.4b, MA.4.NF.B.4c, MA.4.NF.C.5, MA.4.NF.C.6, MA.4.NF.C.7

Content Statement: Students add and subtract with unlike denominators by replacing given fractions with equivalent fractions to produce an equivalent sum or difference with like denominators. Students solve word problems involving addition and subtraction of fractions with unlike denominators. Students will interpret fractions as division of the numerator by the denominator. Students apply and extend previous understanding of multiplication to multiply fractions and whole numbers. Students interpret multiplication as scaling. Students will solve real world problems involving multiplication of fractions and mixed numbers. Students apply and extend previous understanding of division to divide unit fractions by whole numbers, and whole numbers by unit fractions.

Instructional Focus: Number and Operations-Fractions

Lesson #: Sections 7.1, 7.2, 7.3, 7.4, 7.5, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 9.1, 9.2, 9.3, 9.4, 9.5, 10.1, 10.2, 10.3, 10.4, 10.5, 10.6

Essential Questions:

- How to model and write equivalent fractions.
- How to use multiplication to find equivalent fractions.
- How to use division to find equivalent fractions.
- How to compare fractions using benchmarks.
- How to compare fractions using equivalent fractions.
- How to use area models and number lines to add fractions.
- How to write fractions as a sum of fractions.
- How to add fractions with like denominators.
- How to use area models and number lines to subtract fractions.
- How to subtract fractions with like denominators.
- How to write mixed numbers as fractions and fractions as mixed numbers.
- How to add mixed numbers with like denominators.
- How to subtract mixed numbers with like denominators.
- How to solve multi-step word problems involving fractions and mixed numbers.
- How to write fractions as multiples of unit fractions.
- How to write multiples of fractions as multiples of unit fractions.
- How to multiply whole numbers and fractions.
- How to multiply whole numbers and mixed numbers.
- How to solve multi-step word problems involving fractions and mixed numbers.

- How to write a fraction or mixed number involving tenths as a decimal.
- How to write a fraction or mixed number involving hundredths as a decimal.
- How to write tenths and hundredths as equivalent fractions and decimals.
- How to compare decimals to the hundredths place.
- How to use equivalent fractions to add decimal fractions and decimals.
- How to write amounts of money in different ways.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.4.NF (Domain) Number and Operations-Fractions
- MA.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.
 - 7.1 Model Equivalent Fractions, 7.2 Generate Equivalent Fractions by Multiplying, 7.3 Generate Equivalent Fractions by Dividing
- MA.4.NF.A.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. 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.
 - 7.4 Compare Fractions Using Benchmarks, 7.5 Compare Fractions
- MA.4.NF.B.3a-d Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.
 - 8.1 Use Models to Add Fractions, 8.2 Decompose Fractions, 8.3 Add Fractions with Like Denominators, 8.4 Use Models to Subtract Fractions, 8.5 Subtract Fractions with Like Denominators, 8.6 Model Fractions and Mixed Numbers, 8.7 Add Mixed Numbers, 8.8 Subtract Mixed Numbers, 8.9 Problem Solving: Fractions
- MA.4.NF.B.4a-c Apply and extend previous understandings of multiplication to multiply a fraction by a whole number
 - 9.1 Understand Multiples of Unit Fractions, 9.2 Understand Multiples of Fractions, 9.3 Multiply Whole Numbers and Fractions, 9.4 Multiply Whole Numbers and Mixed Numbers, 9.5 Problem Solving: Fraction Operations
- MA.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.
 - 10.3 Fractions and Decimals, 10.5 Add Decimal Fractions and Decimals
- MA.4.NF.C.6 Use decimal notation for fractions with denominators 10 or 100.
 - 10.1 Understand Tenths, 10.2 Understand Hundredths, 10.3 Fractions and Decimals, 10.5 Add Decimal Fractions and Decimals, 10.6 Fractions, Decimals, and Money
- MA.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.
 - 10.4 Compare Decimals

Suggested Activities

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

Instructional Materials/Resources

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

	<ul style="list-style-type: none"> ● Cumulative assessments ● Benchmark tests ● Performance assessment
Pacing: approx # of class periods: 27	

NJ Student Learning Standards for Math: MA.4.NF.A.1, MA.4.NF.A.2, MA.4.NF.B.3a, MA.4.NF.B.3b, MA.4.NF.B.3c, MA.4.NF.B.3d, MA.4.NF.B.4a, MA.4.NF.B.4b, MA.4.NF.B.4c, MA.4.NF.C.5, MA.4.NF.C.6, MA.4.NF.C.7

Interdisciplinary Connections

Language Arts Literacy LA.RL.4.1, LA.RI.4.4, LA.RF.4.4.C, LA.W.4.1.A, LA.W.4.1.B, LA.W.4.2.A, LA.W.4.2.B, LA.W.4.2.C, LA.W.4.2.D, LA.W.4.2.F, LA.W.4.4, LA.L.4.2.B, LA.4.3.A, LA.L.4.4.C, LA.L.4.6

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

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

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

Integration of Technology

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

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

21st Century Life and Career Skills

X	CRP1. Act as a responsible and contributing citizen and employee.
X	CRP2. Apply appropriate academic and technical skills.
X	CRP3. Attend to personal health and financial well-being.
X	CRP4. Communicate clearly and effectively and with reason.
	CRP5. Consider the environmental, social and economic impacts of decisions.
X	CRP6. Demonstrate creativity and innovation.
	CRP7. Employ valid and reliable research strategies.
X	CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

	CRP9. Model integrity, ethical leadership and effective management.
	CRP10. Plan education and career paths aligned to personal goals.
X	CRP11. Use technology to enhance productivity.
	CRP12. Work productively in teams while using cultural global competence.

Evidence of Learning

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

Instructional Delivery

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

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

Differentiated Instruction, Accommodations & Adaptations

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

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

Special Education/IEP	504
<p>Assessments/assignments read orally w/ extended time Concept chunking Graphic organizer concept maps Picture study guides Small group instruction Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts</p>	<p>Extended time for assignments Frequent breaks Sign agenda book daily Study guides Graphic organizers</p>
ELL	Gifted & Talented
<p>Picture study guides Video presentation/Audio presentation Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts Spanish pupil editions including assessments</p>	<p>Independent extension research projects Jigsaw cooperative learning activities Student choice Advanced Activities Class grouping</p>
<u>At Risk/I&RS</u>	<u>At Risk/I&RS</u>
<p>Presentation accommodations (changes the way information is presented)</p> <ul style="list-style-type: none"> ● Listen to audio recordings instead of reading text ● Learn content from videos, and digital media instead of reading print versions ● Work with fewer items per page or line ● Have a “designated reader”—someone who reads test questions aloud to ● Hear instructions spoken aloud ● Get class notes from teacher ● See an outline of a lesson ● Use visual presentations of verbal material, such as word webs ● Get a written list of instructions <p>Response accommodations (changes the way kids complete assignments or tests)</p> <ul style="list-style-type: none"> ● Give responses in a form (spoken or written) that’s easier for them 	<p>Common Modifications</p> <p>Assignment modifications</p> <ul style="list-style-type: none"> ● Complete fewer or different homework problems than peers ● Write shorter answers to questions ● Answer fewer or different test questions ● Create alternate projects or assignments <p>Curriculum modifications</p> <ul style="list-style-type: none"> ● Learn different material (such as continuing to work on multiplication while classmates move on to fractions) ● Get graded or assessed using a different standard than other students ● Be excused from particular projects

<ul style="list-style-type: none"> ● Dictate answers to a scribe who writes or types ● Use a spelling dictionary or digital spell-checker ● Use a laptop to type notes or give answers in class ● Use a calculator or table of “math facts” <p>Setting accommodations</p> <ul style="list-style-type: none"> ● Work or take a test in a different setting, such as a quiet room with few distractions ● Sit where they learn best (for example, near the teacher) ● Adjust lighting in the classroom ● Take a test in a small group setting <p>Timing accommodations</p> <ul style="list-style-type: none"> ● Take more time to complete a task or a test ● Have extra time to process spoken information and directions ● Take frequent breaks, such as after completing a worksheet 	<p>Scheduling accommodations</p> <ul style="list-style-type: none"> ● Take more time to complete a project ● Take a test in several sessions or over several days ● Take sections of a test in a different order ● Take a test at a specific time of day <p>Organization skills accommodations</p> <ul style="list-style-type: none"> ● Mark notes with a highlighter ● Use a planner or organizer to help coordinate assignments ● Receive organizational skills instruction
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Internet Resources

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

Gr –4th Grade Unit 4-Measurement and Data

Unit Overview

Content topic and skill focus: Measurement and Data
Standard, Strand, and Content statements (CPIs listed below)
Learning in this unit will focus on: **Measurement and Data**

Standard MA.4.MD.A.1, MA.4.MD.A.2, MA.4.MD.A.3, MA.4.MD.B.4, MA.4.MD.C.5a, MA.4.MD.C.5b, MA.4.MD.C.6, MA.4.MD.C.7

Content Statement: Students convert among different-size standard measurement units within a given measurement system. Students will make a line plot to display a data set of measurements in fractions of a unit. Students recognize volume as an attribute of solid figures and understand concepts of volume measurement.

Students will measure volumes by counting unit cubes, using cubic sm, cubic in, cubic ft, and improvising units. Students will relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

Instructional Focus: Measurement and Data

Lesson #: Sections 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8, 11.9, 12.1, 12.2, 12.3, 12.4, 13.4, 13.5, 13.6, 13.7, 13.8

Essential Questions:

- How to write lengths using equivalent metric measures.
- How to write masses and capacities using equivalent metric measures.
- How to write lengths using equivalent customary measures.
- How to write weights using equivalent customary measures.
- How to write capacities using equivalent customary measures.
- How to make line plots and use them to solve problems.
- How to write amounts of time using equivalent measures.
- How to solve multi-step word problems involving elapsed time.
- How to add and subtract mixed measures.
- How to use a formula to find the perimeter of a rectangle.
- How to use a formula to find the area of a rectangle.
- How to find unknown measures of a rectangle.
- How to solve multi-step word problems involving perimeter or area.
- How to measure angles using degrees.
- How to find the measures of angles.
- How to measure and draw angles.
- How to find the measure of an angle using its parts.
- How to find the measures of unknown angles.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.4.MD (Domain) Measurement and Data
- MA.4.MD.A.1 Know relative sizes of measurement units within one system of units including km, m,cm; kg, 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.
 - 11.1 Length in Metric Units, 11.2 Mass and Capacity in Metric Units, 11.3 Length in Customary Units, 11.4 Weight in Customary Units, 11.5 Capacity in Customary Units, 11.7 Units of Time, 11.8 Problem Solving: Elapsed Time, 11.9 Mixed Measures
- MA.4.MD.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 using diagrams such as number line diagrams that feature a measurement scale.
 - 10.7 Operations with Money, 11.1 Length in Metric Units, 11.2 Mass and Capacity in Metric Units, 11.3 Length in Customary Units, 11.4 Weight in Customary Units, 11.5 Capacity in Customary Units, 11.6 Make and Interpret Line Plots,11.7 Units of Time, 11.8 Problem Solving: Elapsed Time, 11.9 Mixed Measures
 -
- MA.4.MD.A.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.
 - 12.1 Perimeter Formula for a Rectangle, 12.2 Area Formula for a Rectangle, 12.3 Find Unknown Measures, 12.4 Problem Solving: Perimeter and Area
- MA.4.MD.B.4 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 information presented in line plots.
 - 11.6 Make and Interpret Line Plots

<ul style="list-style-type: none"> ● MA.4.MD.C.5a-b Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. <ul style="list-style-type: none"> ○ 13.4 Understand Degrees, 13.5 Find Angle Measures, 13.6 Measure and Draw Angles ● MA.4.MD.C.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. <ul style="list-style-type: none"> ○ 13.6 Measure and Draw Angles, 13.7 Add Angle Measures, 13.8 Find Unknown Angle Measures ● MA.4.MD.C.7 Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the 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. <ul style="list-style-type: none"> ○ 13.7 Add Angle Measures, 13.8 Find Unknown Angle Measures 	
<p>Suggested Activities</p> <ul style="list-style-type: none"> ● Introduction videos ● IXL ● Graphic organizers ● Scavenger hunts ● Flash cards ● My Dear Aunt Sally Game ● Online textbook lesson ● Online questions correlated to textbook ● Stem videos 	<p>Instructional Materials/Resources</p> <ul style="list-style-type: none"> ● Big Ideas Math Textbook copyright 2022 ● Big Ideas record and practice journal ● Big Ideas resource by chapter workbook ● Big Ideas skills review handbook ● Teacher made materials ● Instructional videos ● Quizzes ● Online chapter review ● Online practice test ● Online test ● Cumulative assessments ● Benchmark tests ● Performance assessment
<p>Pacing: approx # of class periods: 20</p>	

NJ Student Learning Standards for Math: MA.4.MD.A.1, MA.4.MD.A.2, MA.4.MD.A.3, MA.4.MD.B.4, MA.4.MD.C.5a, MA.4.MD.C.5b, MA.4.MD.C.6, MA.4.MD.C.7

Interdisciplinary Connections

Language Arts Literacy LA.RL.4.1, LA.RI.4.4, LA.RF.4.4.C, LA.W.4.1.A, LA.W.4.1.B, LA.W.4.2.A, LA.W.4.2.B, LA.W.4.2.C, LA.W.4.2.D, LA.W.4.2.F, LA.W.4.4, LA.L.4.2.B, LA.4.3.A, LA.L.4.4.C, LA.L.4.6

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

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

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

Integration of Technology

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

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

21st Century Life and Career Skills

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

Evidence of Learning

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

Instructional Delivery

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

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

Differentiated Instruction, Accommodations & Adaptations

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

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

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

Presentation accommodations (changes the way information is presented)

- Listen to audio recordings instead of reading text
- Learn content from videos, and digital media instead of reading print versions
- Work with fewer items per page or line
- Have a “designated reader”—someone who reads test questions aloud to
- Hear instructions spoken aloud
- Get class notes from teacher
- See an outline of a lesson
- Use visual presentations of verbal material, such as word webs
- Get a written list of instructions

Response accommodations (changes the way kids complete assignments or tests)

- Give responses in a form (spoken or written) that’s easier for them
- Dictate answers to a scribe who writes or types
- Use a spelling dictionary or digital spell-checker
- Use a laptop to type notes or give answers in class
- Use a calculator or table of “math facts”

Setting accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where they learn best (for example, near the teacher)
- Adjust lighting in the classroom
- Take a test in a small group setting

Timing accommodations

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

Common Modifications

Assignment modifications

- Complete fewer or different homework problems than peers
- Write shorter answers to questions
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum modifications

- Learn different material (such as continuing to work on multiplication while classmates move on to fractions)
- Get graded or assessed using a different standard than other students
- Be excused from particular projects

Scheduling accommodations

- Take more time to complete a project
- Take a test in several sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization skills accommodations

- Mark notes with a highlighter
- Use a planner or organizer to help coordinate assignments
- Receive organizational skills instruction

Internet Resources

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

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

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

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

Internet4classrooms https://www.internet4classrooms.com/skills_6th.htm

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

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

Gr –4th Grade Unit 5-Geometry

Unit Overview

Content topic and skill focus: **Geometry**

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

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

Standard MA.4.G.A.1, MA.4.G.A.2, MA.4.G.A.3

Content Statement: Students will use a pair of perpendicular number lines, called axis, to define a coordinate system, with the intersection of lines arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers called its coordinate. Students will represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret its value. Students understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. Students will classify two-dimensional figures in a hierarchy based on properties.

Instructional Focus: Geometry

Lesson #: Sections 13.1, 13.2, 13.3, 13.6, 14.1, 14.2, 14.3, 14.4, 14.5

Essential Questions:

- How to identify and draw points, lines, line segments, and rays.
- How to identify and draw angles.
- How to identify and draw intersecting lines, parallel lines, and perpendicular lines.
- How to measure and draw angles.
- How to identify shapes that have line symmetry.
- How to draw symmetric shapes.
- How to classify triangles by their sides.
- How to classify triangles by their angles.
- How to classify quadrilaterals.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.4.G (Domain) Geometry
- MA.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.
 - 13.1 Points, Lines and Rays, 13.2 Identify and Draw Angles, 13.3 Identify Parallel and Perpendicular Lines, 13.6 Measure and Draw Angles
- MA.4.G.A.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
 - 14.3 Classify Triangles by Sides, 14.4 Classify Triangles by Angles, 14.5 Classify Quadrilaterals
- MA.4.G.A.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

○ 14.1 Line Symmetry, 14.2 Draw Symmetric Shapes	
<p>Suggested Activities</p> <ul style="list-style-type: none"> ● Introduction videos ● IXL ● Graphic organizers ● Scavenger hunts ● Flash cards ● My Dear Aunt Sally Game ● Online textbook lesson ● Online questions correlated to textbook ● Stem videos 	<p>Instructional Materials/Resources</p> <ul style="list-style-type: none"> ● Big Ideas Math Textbook copyright 2022 ● Big Ideas record and practice journal ● Big Ideas resource by chapter workbook ● Big Ideas skills review handbook ● Teacher made materials ● Instructional videos ● Quizzes ● Online chapter review ● Online practice test ● Online test ● Cumulative assessments ● Benchmark tests ● Performance assessment
<p>Pacing: approx # of class periods: 11</p>	

NJ Student Learning Standards for Math: MA.4.G.A.1, MA.4.G.A.2, MA.4.G.A.3

Interdisciplinary Connections

Language Arts Literacy LA.RL.4.1, LA.RI.4.4, LA.RF.4.4.C, LA.W.4.1.A, LA.W.4.1.B, LA.W.4.2.A, LA.W.4.2.B, LA.W.4.2.C, LA.W.4.2.D, LA.W.4.2.F, LA.W.4.4, LA.L.4.2.B, LA.4.3.A, LA.L.4.4.C, LA.L.4.6

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

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

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

Integration of Technology

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

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

21st Century Life and Career Skills

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

Evidence of Learning

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

Instructional Delivery

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

- Direct instruction/demonstration
- Interactive/Guided math strategies
- Cooperative learning activities
- Digital activities including videos, games, assessments
- Research projects and Presentation projects
- Small Group Instruction
- Share Examples

- Visual Aids
- Learning Centers
- Modeled, Shared, and Independent Activities
- Active Learning

Differentiated Instruction, Accommodations & Adaptations

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

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

Special Education/IEP	504
Assessments/assignments read orally w/ extended time Concept chunking Graphic organizer concept maps Picture study guides Small group instruction Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts	Extended time for assignments Frequent breaks Sign agenda book daily Study guides Graphic organizers
ELL	Gifted & Talented
Picture study guides Video presentation/Audio presentation Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts Spanish pupil editions including assessments	Independent extension research projects Jigsaw cooperative learning activities Student choice Advanced Activities Class grouping
<u>At Risk/I&RS</u>	<u>At Risk/I&RS</u>
Presentation accommodations (changes the way information is presented) <ul style="list-style-type: none"> ● Listen to audio recordings instead of reading text ● Learn content from videos, and digital media instead of reading print versions ● Work with fewer items per page or line 	Common Modifications Assignment modifications <ul style="list-style-type: none"> ● Complete fewer or different homework problems than peers ● Write shorter answers to questions ● Answer fewer or different test questions ● Create alternate projects or assignments

- Have a “designated reader”—someone who reads test questions aloud to
- Hear instructions spoken aloud
- Get class notes from teacher
- See an outline of a lesson
- Use visual presentations of verbal material, such as word webs
- Get a written list of instructions

Response accommodations (changes the way kids complete assignments or tests)

- Give responses in a form (spoken or written) that’s easier for them
- Dictate answers to a scribe who writes or types
- Use a spelling dictionary or digital spell-checker
- Use a laptop to type notes or give answers in class
- Use a calculator or table of “math facts”

Setting accommodations

- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where they learn best (for example, near the teacher)
- Adjust lighting in the classroom
- Take a test in a small group setting

Timing accommodations

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

Curriculum modifications

- Learn different material (such as continuing to work on multiplication while classmates move on to fractions)
- Get graded or assessed using a different standard than other students
- Be excused from particular projects

Scheduling accommodations

- Take more time to complete a project
- Take a test in several sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization skills accommodations

- Mark notes with a highlighter
- Use a planner or organizer to help coordinate assignments
- Receive organizational skills instruction

Internet Resources

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

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

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

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

Internet4classrooms https://www.internet4classrooms.com/skills_6th.htm

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

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

