

**WEYMOUTH TOWNSHIP MATHEMATICS
CURRICULUM**

Content Area: Mathematics

Course Title: Middle School

Grade Level: 5

**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 –5th 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.5.OA.A.1, MA.5.OA.A.2, MA.5.OA.B.3

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 2.1, 2.2, 2.3, 2.4, 3.6, 3.7, 4.1, 4.2, 4.3, 5.7, 5.9, 6.1, 7.9, 8.8, 9.1, 9.5, 9.7, 10.5, 11.4, 11.5, 11.6, 11.7, 12.6, 12.7

Essential Questions:

- How to use and evaluate parentheses, brackets, or braces accurately in numerical expressions.
- How to write expressions when given a statement.
- How to explain the relationship between numbers in an expression, without calculating.
- How to use mental math to add or subtract decimals.
- How to explain the relationship between the number of zeros in a product involving a power of 10 and the power of 10.
- How to explain the relationship between the movement of the decimal point and multiplying or dividing by powers of 10.
- How to use estimation and properties to multiply decimals.
- How to solve multi-step word problems involving fractions and mixed numbers.
- How to multiply whole numbers by fractions.
- How to multiply fraction by fraction.
- How to convert measurements between units within a measuring system.
- How to display measurement data, including fractions, on a line plot.
- How to create and describe numerical patterns.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.5.OA (Doman) Write and interpret numerical expressions.
- MA.5.OA.A.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
 - 2.1 Number Properties, 2.2 Order of Operations, 2.3 Write Numerical Expressions, 2.4 Evaluate Expressions with Grouping Symbols, 3.6 Use Mental Math to Add or Subtract Decimals, 3.7 Problem Solving: Money, 4.1 Multiplication Patterns, 4.2 Estimate Products, 4.3 Multiply by One-Digit Numbers, 5.7 Use Strategies to Multiply Decimals, 5.9 Problem Solving: Multiply with Money, 6.1 Relate Multiplication and Division, 7.9 Problem Solving: Decimal Operation, 8.8 Problem Solving: Fractions, 9.1 Multiply Whole Numbers by Fractions, 9.5 Multiply Fractions, 9.7 Multiply Mixed Numbers, 10.5 Problem Solving: Fraction Division, 11.4 Weight in Customary Units, 11.5 Capacity in Customary Units, 11.6 Make and Interpret Line Plots, 11.7 Problem Solving: Measurements.

<ul style="list-style-type: none"> ● MA.5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them <ul style="list-style-type: none"> ○ 2.3 Write Numerical Expressions, 2.4 Evaluate Expressions with Grouping Symbols, 12.6 Numerical Patterns ● MA.5.OA.B.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. <ul style="list-style-type: none"> ○ 12.6 Numerical Patterns, 12.7 Graph and Analyze Relationships 	
<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: 24</p>	

Interdisciplinary Connections

Language Arts Literacy LA.W.6.1.B, LA.W.6.1.C, LA.W.6.1.E, LA.W.6.2.A, LA.W.6.2.B, LA. 6.2.C, LA.W.6.2.D, LA.W.6.2.F, LA.W.6.4, LA.L.6.2.B, LA.6.3.A, LA.L.6.4.C, LA.L.6.6

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.6-8.8.1.8.DA.1, CS.6-8.8.1.8.DA.4, CS.6-8.8.1.8.DA.5, CS.6-8.8.2.8.ED.2, CS.6-8.8.2.8.ED.3, CS.6-8.8.2.8.ED.7

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	<table border="0"> <tr> <td>Hand Signals</td> <td>Lesson Review questions</td> </tr> <tr> <td>Student Conference</td> <td>Reading Check questions</td> </tr> <tr> <td>Fun and Games</td> <td>Share/Pair</td> </tr> <tr> <td>Class work/participation</td> <td>Skills Practice</td> </tr> <tr> <td>Critical Thinking Skill activity</td> <td>Study Guide</td> </tr> <tr> <td>Writing about Math</td> <td>Teacher Observation</td> </tr> <tr> <td>Textbook Interactive Activities</td> <td>Unit Review</td> </tr> <tr> <td>ixl</td> <td>Vocabulary Review</td> </tr> <tr> <td>record and practice journal</td> <td>Graphic Organizers</td> </tr> <tr> <td></td> <td>Homework and Practice pages</td> </tr> <tr> <td></td> <td>Writing Connection</td> </tr> <tr> <td></td> <td>Content Videos</td> </tr> <tr> <td></td> <td>Online Questions</td> </tr> </table>	Hand Signals	Lesson Review questions	Student Conference	Reading Check questions	Fun and Games	Share/Pair	Class work/participation	Skills Practice	Critical Thinking Skill activity	Study Guide	Writing about Math	Teacher Observation	Textbook Interactive Activities	Unit Review	ixl	Vocabulary Review	record and practice journal	Graphic Organizers		Homework and Practice pages		Writing Connection		Content Videos		Online Questions
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Instructional Delivery

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

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

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

Differentiated Instruction, Accommodations & Adaptations

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

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

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 	Common Modifications Assignment modifications <ul style="list-style-type: none"> ● Complete fewer or different homework problems than peers ● Write shorter answers to questions

- 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

- 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>

Gr –5th 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.5.NBT.A.1, MA.5.NBT.A.2, MA.5.NBT.A.3a, MA.5.NBT.A.3b, MA.5.NBT.A.4,

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 $\frac{1}{10}$ 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, 1.5, 1.6, 1.7, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 4.2, 4.3, 4.4, 4.5, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 10.5, 11.1, 11.2, 11.3, 11.4, 11.5, 11.7, 13.4

Essential Questions:

- How to explain the relationship between digits in different decimal places.
- How to explain the relationship between the numbers of zeros in a number and the multiples of 10.
- How to explain the relationship between the decimal point and multiplying or dividing by 10.
- How to use exponents to show powers of 10.
- How to read, write, and compare decimals to the thousandths place.
- How to name decimals using base-ten numerals, number names, and expanded form.
- How to compare decimals using symbols.
- How to round decimals to any given place.
- How to add, subtract, multiply, and divide decimals to the hundredths.
- How to use models, place values, properties, and strategies to check for reasonableness.
- How to explain the relationship between the movement of the decimal point and multiplying or dividing by powers of 10.
- How to use exponents to show powers of 10.
- How to fluently multiply multi-digit numbers.
- How to explain the relationship between the number of zeros in a product involving a product involving a power of 10 and the power 10.
- How to use exponents to show powers of 10.
- How to explain the relationship between fractions and division.
- How to use properties and strategies to divide up to the four-digit dividend by up to a two-digit divisor.
- How to convert measurements between units within a measurement system.
- How to display measurement data, including fractions, on a line plot.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.5.NBT (Doman) Number and Operations in Base Ten
- MA.5.NBT.A.1 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.
 - 1.1 Place Value Patterns, 1.2 Place Value with Whole Numbers, 1.3 Patterns and Power of 10, 1.4 Decimals to Thousandths, 1.5 Place Value with Decimals, 4.1 Multiplication Patterns, 5.1 Multiplication Patterns with Decimals, 5.4 Multiply Decimals and Whole Numbers, 5.7 Use Strategies to Multiply Decimals, 7.1 Division Patterns with Decimals
- MA.5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
 - 1.3 Patterns and Powers of 10, 4.1 Multiplication Patterns, 4.2 Estimate Products, 5.1 Multiplication Patterns with Decimals, 5.4 Multiply Decimals and Whole Numbers, 5.7 Use Strategies to Multiply Decimals, 7.1 Division Patterns with Decimals, 7.7 Divide Decimals, 7.8 Insert Zeros in the dividend, 11.1 Length in Metric Units, 11.2 Mass and Capacity in Metric Units
- MA.5.NBT.A.3 Read, write, and compare decimals to thousandths.
 - 1.4 Decimals to Thousandths, 1.5 Place Value with Decimals, 1.6 Compare Decimals, 3.3 Add Decimals, 5.3 Use Models to Multiply Decimals and Whole Numbers, 5.8 Multiply Decimals, 7.6 Use Models to Divide Decimals
- MA.5.NBT.A.4 Use place value understanding to round decimals to any place.
 - 1.7 Round Decimals, 3.1 Estimate Sums and Differences, 3.3 Add Decimals, 3.5 Add and Subtract Decimals, 5.2 Estimate Products of Decimals and Whole Numbers, 5.4 Multiply Decimals and Whole Numbers, 5.6 Use Partial Products to Multiply Decimals, 5.8 Multiply Decimals, 7.2 Estimate Decimal Quotients, 7.4 Divide Decimals by One-Digit Numbers, 7.5 Divide Decimals by Two-Digit Numbers, 7.7 Divide Decimals, 7.8 Insert Zeros in the Dividend
- MA.5.NBT.B.5 With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm.
 - 4.3 Multiply by One-Digit Numbers, 4.4 Multiply by Two-Digit Numbers, 4.5 Multiply by Multi-Digit Whole Numbers, 6.4 Divide by One-Digit Numbers, 6.7 Divide Three-Digit Numbers by Two-Digit Numbers, 6.9 Problem Solving: Division
- MA.5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-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.
 - 6.1 Relate Multiplication and Division, 6.2 Division Patterns, 6.3 Estimate Quotients, 6.4 Divide by One-Digit Numbers, 6.5 Use Partial Quotients to Divide by Two-Digit Numbers, 6.6 Use Partial Quotients with a Remainder, 6.7 Divide Three-Digit Numbers by Two-Digit Numbers, 6.8 Divide Four-Digit Numbers by Two-Digit Numbers, 6.9 Problem Solving: Division, 7.1 Division Patterns with Decimals, 7.2 Estimate Decimal Quotients, 7.4 Divide Decimals by One-Digit Numbers, 7.5 Divide Decimals by Two-Digit Numbers, 7.7 Divide Decimals, 7.8 Insert Zeros the Dividend, 7.9 Problem Solving: Decimal Operations, 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 Problem Solving: Measurement, 13.4 Find Unknown Dimensions
- MA.5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the

relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

- 3.1 Estimate Sums and Differences, 3.2 Use Models to Add or Subtract Decimals, 3.3 Add Decimals, 3.4 Subtract Decimals, 3.5 Add and Subtract Decimals, 3.6 Use Mental Math to Add or Subtract Decimals, 3.7 Problem Solving: Money, 5.1 Multiplication Patterns with Decimals, 5.2 Estimate Products of Decimals and Whole Numbers, 5.3 Use Models to Multiply Decimals and Whole Numbers, 5.4 Multiply Decimals and Whole Numbers, 5.5 Use Models to Multiply Decimals, 5.6 Use Partial Products to Multiply Decimals, 5.7 Use Strategies to Multiply Decimals, 5.8 Multiply Decimals, 5.9 Problem Solving: Multiply with Money, 7.1 Division Patterns with Decimals, 7.2 Estimate Decimal Quotients, 7.3 Use Models to Divide Decimals by Whole Numbers, 7.4 Divide Decimals by One-Digit Numbers, 7.5 Divide Decimals by Two-Digit Numbers, 7.6 Use Models to Divide Decimals, 7.7 Divide Decimals, 7.8 Insert Zeros the Dividend, 7.9 Problem Solving: Decimal Operations, 10.5 Problem Solving: Fraction Division, 11.1 Length in Metric Units, 11.2 Mass and Capacity in Metric Units

Suggested Activities

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

Instructional Materials/Resources

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

Pacing: approx # of class periods: 53

Interdisciplinary Connections

Language Arts Literacy LA.W.6.1.B, LA.W.6.1.C, LA.W.6.1.E, LA.W.6.2.A, LA.W.6.2.B, LA. 6.2.C, LA.W.6.2.D, LA.W.6.2.F, LA.W.6.4, LA.L.6.2.B, LA.6.3.A, LA.L.6.4.C, LA.L.6.6

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

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21st Century Life and Career Skills

X	CRP1. Act as a responsible and contributing citizen and employee.
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X	CRP3. Attend to personal health and financial well-being.
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X	CRP11. Use technology to enhance productivity.
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Evidence of Learning

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- Small Group Instruction
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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>
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Response accommodations (changes the way kids complete assignments or tests)

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- 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

- 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>

Gr –5th 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.NF.A.1, MA.5.NF.A.2, MA.5.NF.B.3, MA.5.NF.B.4a, MA.5.NF.B.4b, MA.5.NF.B.5a, MA.5.NF.B.5b, MA.5.NF.B.6, MA.5.NF.B.7a, MA.5.NF.B.7b, MA.5.NF.B.7c

Content Statement: Students add and subtract with unlike denominators by replacing given fractions with equivalent fractions to produce an equivalent sum or different with like denominators. Students solve word problems involving addition and subtraction 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 word problems involving multiplication of fractions and mixed numbers. Students apply and extend previous understanding of division to divide unit fractions by whole whole numbers, and whole numbers by unit fractions.

Instructional Focus: Number and Operations-Fractions

Lesson #: Sections 6.9, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 10.1, 10.2, 10.3, 10.4, 10.5, 11.3, 11.4, 11.5, 11.6, 11.7

Essential Questions:

- How to add and subtract fractions and mixed numbers with unlike denominators.
- How to solve word problems involving addition and subtraction of fractions with unlike denominators.
- How to use an equation to represent a fraction word problem.
- How to multiply a whole number or fraction by a fraction.
- How to solve problems involving multiplication by fractions and mixed numbers.
- How to use strategies to find the area of a rectangle with fractional side lengths.
- How to explain the relationship between fractions and division.
- How to write the answer to a division problem as a fraction.
- How to find the relationship between multiplication and division to divide a unit fraction by a whole number and a whole number by a unit fraction.
- How to convert measurements between units within a measurement system.
- How to display measurement data, including fractions, on a line plot.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.5.NF (Doman) Number and Operations-Fractions
- MA.5.NF.A.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.
 - 8.1 Simplest Form, 8.2 Estimate Sums and Differences of Fractions, 8.3 Find Common Denominators, 8.4 Add Fractions with Unlike Denominators, 8.5 Subtract Fractions with Unlike Denominators, 8.6 Add Mixed Numbers, 8.7 Subtract Mixed Numbers, 8.8 Problem Solving: Fractions, 9.7 Multiply Mixed Numbers

- MA.5.NF.A.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.
 - 8.2 Estimate Sums and Differences of Fractions, 8.4 Add Fractions with Unlike Denominators, 8.5 Subtract Fractions with Unlike Denominators, 8.6 Add Mixed Numbers, 8.7 Subtract Mixed Numbers, 8.8 Problem Solving: Fractions, 9.5 Multiply Fractions, 11.6 Make and Interpret Line Plots
- MA.5.NF.B.3 Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
 - 6.9 Problem Solving: Division, 10.1 Interpret Fractions as Division, 10.2 Mixed Numbers as Quotients, 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
- MA.5.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
 - 9.1 Multiply Whole Numbers by Fractions, 9.2 Use Models to Multiply Fractions by Whole Numbers, 9.3 Multiply Fractions and Whole Numbers, 9.4 Use Models to Multiply Fractions, 9.5 Multiply Fractions, 9.6 Find Area of Rectangles, 9.7 Multiply Mixed Numbers, 10.1 Interpret Fractions as Division, 10.2 Mixed Numbers as Quotients, 10.4 Divide Unit Fractions by Whole Numbers, 10.5 Problem Solving: Fraction Division
- MA.5.NF.B.5 Interpret multiplication as scaling (resizing)
 - 9.8 Compare Factors and Products
- MA.5.NF.B.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
 - 9.1 Multiply Whole Numbers by Fractions, 9.2 Use Models to Multiply Fractions by Whole Numbers, 9.3 Multiply Fractions and Whole Numbers, 9.4 Use Models to Multiply Fractions, 9.5 Multiply Fractions, 9.6 Find Area of Rectangles, 9.7 Multiply Mixed Numbers, 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 Problem Solving: Measurements
- MA.5.NF.B.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
 - 10.3 Divide Whole Numbers by Unit Fractions, 10.4 Divide Unit Fractions by Whole Numbers, 10.5 Problem Solving: Fraction Division

Suggested Activities

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

Instructional Materials/Resources

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

Pacing: approx # of class periods: 27	

Interdisciplinary Connections

Language Arts Literacy LA.W.6.1.B, LA.W.6.1.C, LA.W.6.1.E, LA.W.6.2.A, LA.W.6.2.B, LA. 6.2.C, LA.W.6.2.D, LA.W.6.2.F, LA.W.6.4, LA.L.6.2.B, LA.6.3.A, LA.L.6.4.C, LA.L.6.6

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.6-8.8.1.8.DA.1, CS.6-8.8.1.8.DA.4, CS.6-8.8.1.8.DA.5, CS.6-8.8.2.8.ED.2, CS.6-8.8.2.8.ED.3, CS.6-8.8.2.8.ED.7

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

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

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

Differentiated Instruction, Accommodations & Adaptations

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

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

Special Education/IEP	504
Assessments/assignments read orally w/ extended time Concept chunking Graphic organizer concept maps Picture study guides Small group instruction	Extended time for assignments Frequent breaks Sign agenda book daily Study guides Graphic organizers

<p>Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts</p>	
<p>ELL</p>	<p>Gifted & Talented</p>
<p>Picture study guides Video presentation/Audio presentation Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts Spanish pupil editions including assessments</p>	<p>Independent extension research projects Jigsaw cooperative learning activities Student choice Advanced Activities Class grouping</p>
<p><u>At Risk/I&RS</u></p>	<p><u>At Risk/I&RS</u></p>
<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 	<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

<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 –5th 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.5.NF.A.1, MA.5.NF.A.2, MA.5.NF.B.3, MA.5.NF.B.4a, MA.5.NF.B.4b, MA.5.NF.B.5a, MA.5.NF.B.5b, MA.5.NF.B.6, MA.5.NF.B.7a, MA.5.NF.B.7b, MA.5.NF.B.7c

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, 12.7, 13.1, 13.2, 13.3, 13.4, 13.5

Essential Questions:

- How to convert measurements between units within a measurement system.
- How to solve measurement problems involving conversions.
- How to display measurement data, including fractions, on a line plot.

- How to use a graph to describe the relationship between two numerical patterns.
- How to describe the volume of an object using appropriate units.
- How to explain the relationship between volume, multiplication, and addition.
- How to find the volume of a rectangular prism using unit cubes.
- How to find the volume of a rectangular prism using Associative Property of Multiplication.
- How to find the volume of an object by using the volume formula.
- How to find the volume of composite shapes.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.5.MD (Domain) Measurement and Data
- MA.5.M.A.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
 - 11.1 Lengths 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 Problem Solving: Measurement, 12.7 Graph and Analyze Relationships
- MA.5.MD.B.3 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots.
 - 11.6 Make and Interpret Line Plots, 11.7 Problem Solving: Measurement
- MA.5.MD.B.2 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
 - 13.1 Understand the Concept of Volume, 13.2 Find Volume of Right Rectangular Prisms
- MA.5.M.B.3 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units.
 - 13.1 Understand the Concept of Volume, 13.2 Find Volume of Right Rectangular Prisms
- MA.5.M.B.4 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
 - 13.2 Find Volume of Right Rectangular Prisms, 13.3 Apply the Volume Formula, 13.4 Find Unknown Dimensions, 13.5 Find Volumes of Composite Figures

Suggested Activities

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

Instructional Materials/Resources

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

Pacing: approx # of class periods: 13	

Interdisciplinary Connections

Language Arts Literacy LA.W.6.1.B, LA.W.6.1.C, LA.W.6.1.E, LA.W.6.2.A, LA.W.6.2.B, LA. 6.2.C, LA.W.6.2.D, LA.W.6.2.F, LA.W.6.4, LA.L.6.2.B, LA.6.3.A, LA.L.6.4.C, LA.L.6.6

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.6-8.8.1.8.DA.1, CS.6-8.8.1.8.DA.4, CS.6-8.8.1.8.DA.5, CS.6-8.8.2.8.ED.2, CS.6-8.8.2.8.ED.3, CS.6-8.8.2.8.ED.7

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

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

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

Differentiated Instruction, Accommodations & Adaptations

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

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

Special Education/IEP	504
Assessments/assignments read orally w/ extended time Concept chunking Graphic organizer concept maps Picture study guides Small group instruction	Extended time for assignments Frequent breaks Sign agenda book daily Study guides Graphic organizers

<p>Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts</p>	
<p>ELL</p>	<p>Gifted & Talented</p>
<p>Picture study guides Video presentation/Audio presentation Tests modified to include a word bank, drawings, and diagrams while still covering the essential concepts Spanish pupil editions including assessments</p>	<p>Independent extension research projects Jigsaw cooperative learning activities Student choice Advanced Activities Class grouping</p>
<p><u>At Risk/I&RS</u></p>	<p><u>At Risk/I&RS</u></p>
<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 	<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

<ul style="list-style-type: none"> ● 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 	<ul style="list-style-type: none"> ● 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 –5th 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.5.G.A.1, MA.5.G.A.2, MA.5.G.B.3, MA.5.G.B.4

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 12.1, 12.2, 12.3, 12.4, 12.5, 12.7, 14.1, 14.2, 14.3

<p>Essential Questions:</p> <ul style="list-style-type: none"> ● How to describe a coordinate system using appropriate vocabulary. ● How to graph points in a coordinate plane to represent real-world problems. ● How to explain the value of points in a coordinate plane in relation to a real-world problem. ● How to analyze patterns based on relationships and operations. ● How to create a numeric patterns using given rules ● How to graph ordered pairs in a coordinate plane.

- How to use and explain the attribution of categories and subcategories of two-dimensional shapes.
- How to classify shapes based on properties.

Student Learning Objectives: STUDENTS WILL BE ABLE TO:

- MA.5.G (Doman) Geometry
- MA.5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) 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 coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x -axis and x -coordinate, y -axis and y -coordinate).
 - 12.1 Plot Points in a Coordinate Plane, 12.2 Relate Points in a Coordinate Plane, 12.3 Draw Polygons in a Coordinate Plane, 12.4 Graph Data, 12.5 Make and Interpret Line Graphs, 12.7 Graph and Analyze Relationships
- MA.5.G.A.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
 - 12.1 Plot Points in a Coordinate Plane, 12.2 Relate Points in a Coordinate Plane, 12.3 Draw Polygons in a Coordinate Plane, 12.4 Graph Data, 12.5 Make and Interpret Line Graphs, 12.7 Graph and Analyze Relationships
- MA.5.G.B.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
 - 14.2 Classify Quadrilaterals, 14.3 Relate Quadrilaterals
- MA.5.G.B.4 Classify two-dimensional figures in a hierarchy based on properties.
 - 14.1 Classify Triangles, 14.2 Classify Quadrilaterals, 14.3 Relate Quadrilaterals

Suggested Activities

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

Instructional Materials/Resources

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

Pacing: approx # of class periods: 9

Interdisciplinary Connections

Language Arts Literacy LA.W.6.1.B, LA.W.6.1.C, LA.W.6.1.E, LA.W.6.2.A, LA.W.6.2.B, LA. 6.2.C, LA.W.6.2.D, LA.W.6.2.F, LA.W.6.4, LA.L.6.2.B, LA.6.3.A, LA.L.6.4.C, LA.L.6.6

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.6-8.8.1.8.DA.1, CS.6-8.8.1.8.DA.4, CS.6-8.8.1.8.DA.5, CS.6-8.8.2.8.ED.2, CS.6-8.8.2.8.ED.3, CS.6-8.8.2.8.ED.7

21st Century Life and Career Skills

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

Evidence of Learning

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

	Writing Connection Content Videos Online Questions
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Instructional Delivery

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

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

Differentiated Instruction, Accommodations & Adaptations

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

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

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>