# Wayne Township Public Schools
# Grade 5 Math Curriculum

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***Wayne Township Public Schools***

**Fifth Grade Math Curriculum**

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| **Grade Level & Content:** | Fifth Grade Mathematics |
| **Unit Plan Title:** | ***Unit 1***: Place Value, Decimals, Multiplication |
| **Time Frame:** | 8 Weeks (please see pacing calendar) |

**Anchor Standards/Domain*** ***i.e: ELA: reading, writing i.e.: Math: Number and Operations in Base 10**

Math:

- Number and Operations in Base Ten

**Unit Summary**

In this unit, students will focus on deepening their understanding of place value in both whole numbers and decimals. Students will grow their understanding of whole numbers and decimal operations. Students will use the standard multiplication algorithm to fluently multiply multi-digit numbers. Students will use models and strategies, to perform mathematical operations on decimals through hundredths.

**Standard Number(s)**

- 5.NBT.A.1: Understand the place value system. 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.
- 5.NBT.A.2: Understand the place value system. 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.
- 5.NBT.A.3a: Understand the place value system. Read, write, and compare decimals to the thousandths. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
- 5.NBT.A.3b: Understand the place value system. Read, write, and compare decimals to the thousandths. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
- 5.NBT.A.4: Understand the place value system. Use place value understanding to round decimals to any place.
- 5.NBT.B.5: Perform operations with multi-digit whole numbers and with decimals to the hundredths. Fluently multiply multi-digit whole numbers using the standard algorithm.
- 5.NBT.B.7: Perform operations with multi-digit whole numbers and with decimals to the hundredths. 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.
- Mathematical Practices 1-8
    1. Make sense of problems and persevere in solving them.
    2. Reason abstractly and quantitatively.
    3. Construct viable arguments and critique the reasoning of others.
    4. Model with mathematics.
    5. Use appropriate tools strategically.
    6. Attend to precision.
    7. Look for and make use of structure.
    8. Look for and express regularity in repeated reasoning.

- Career Readiness, Life Literacies, and Key Skills Practices
  - CRP4. Demonstrate creativity and innovation.
  - CRP5. Utilize critical thinking to make sense of problems and persevere in solving them.
  - CRP9. Work productively in teams while using cultural/global competence.
- Career Readiness, Life Literacies, and Key Skills
  - 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
  - 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.
- WIDA
  - ELD Standard 1: The Language of Social and Instructional Language
  - ELD Standard 3: The Language of Mathematics
- Computer Science and Design Thinking
  - 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
  - 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

**Essential Question(s)**

- Topic 1: How are whole numbers and decimals written, compared, and ordered?
- Topic 2: How can sums and differences of decimals be estimated? What are the standard procedures for adding and subtracting whole numbers and decimals? How can sums and differences be found mentally?
- Topic 3: What are the standard procedures for estimating and finding products of multi-digit numbers?
- Topic 4: What are the standard procedures for estimating and finding products involving decimals?

**Enduring Understandings**

Topic 1

- Basic facts and place-value patterns can be used to find products when an exponent with 10 as a the base can be used to represent powers of 10.
- Each digit's place value in a number provides a way to understand the number's value.
- Our place value system is based on powers of 10.
- Each digit within a decimal number has a place value that helps determine the value of a number.
- Place value can be used to compare, order, and round whole numbers and decimals.
- Rounding is a process for finding the multiple of 10, 100, and so on, or of 0.1, 0.001, and so on, closest to a given number.
- Good thinkers look for relationships in math have help solve problems.

Topic 2:

- There is more than one way to do mental calculations.
- A sum or difference can be estimated by replacing numbers with other numbers that are easier to add or subtract mentally.
- Models and algorithms for adding or subtracting multi-digit decimals are just an extension of models

and algorithms for adding and subtracting whole numbers.
- Adding and subtracting decimals is similar to adding and subtracting whole numbers. Algorithms and models can be used to complete the calculations.
- Good math thinkers choose and apply math they know to show and solve problems from everyday life.

Topic 3:
- Place-value patterns and mental math can be used to write the product of whole numbers and a power of ten.
- Estimating products is a useful technique to quickly solve mathematical problems and understand the value of numbers used in a real world situation.
- Multiply 3-digit numbers by 2-digit numbers by combining equal groups. Rounding to the nearest 10 or using compatible numbers helps estimate with greater accuracy when multiplying with greater numbers.
- The process for multiplying factors with zeros is always the same regardless of the size of the numbers with zero.
- No matter the size of the numbers, the standard algorithm for multiplying whole numbers is always based on properties of operations and can be used to solve problems.
- Using a bar diagram and writing an equation are two strategies that can be used to solve multi step problems.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.

Topic 4:
- Patterns can be identified and used to multiply decimals by 10, 100, and 1,000.
- You can estimate the product of a decimal and a whole number by using compatible numbers and rounding.
- The standard multiplication algorithm used with decimals is an extension of the standard algorithm used when multiplying whole numbers. You can use models to represent multiplication problems and communicate ideas to others.
- Steps for multiplying decimals are similar to steps for multiplying whole numbers.
- The partial product process for multiplying whole numbers can be used for multiplying decimals.
- The Associative and Commutative Properties can be used to break apart and multiply decimals.
- Thinking about the relative size of the decimal can help you determine the relative size of the product.
- Good math thinkers choose and apply math they know to show and solve problems from everyday life.

**Interdisciplinary Connections**

Activities to connect math with other disciplines from the enVision 2.0 resources:
- Language Arts (RI.5.4, W.5.2)
  - Problem solving reading mats and activities (Source: Problem-Solving Reading Activity Guide)
  - Topic journal activities (Source: Teacher Manual)
- Science (5-ESS2-1, 5-ESS2-2, 5-LS1-1)
  - Math and science projects (Source: Teacher Manual)
  - Math and science activities (Source: Teacher's Resource Masters)

**In this unit plan, the following 21st Century themes and skills are addressed.**

| *Check all that apply.* **21st Century Themes** | | *Check all that apply.* **21st Century Skills** | |
|---|---|---|---|
| | **Global Awareness** | | **Creativity and Innovation** |
| | **Environmental Literacy** | X | **Critical Thinking and Problem Solving** |
| | **Health Literacy** | X | **Communication** |
| | **Civic Literacy** | X | **Collaboration** |
| | **Financial, Economic, Business, and Entrepreneurial Literacy** | | |

**Student Learning Targets/Objectives (Students will know/Students will understand)**

- Topic 1
  - Use exponents to write powers of 10 and calculate products.
  - Read and write whole numbers using standard form, expanded form, and number names.
  - Represent decimals to the thousandths as fractions and fractions with denominators of 1,000 as decimals.
  - Read and write decimals through thousandths in different ways.
  - Round decimals to different places.
  - Using place value to compare and round decimals through thousandths.
  - Use the structure of the decimal place value system to solve problems involving patterns.
  - Reflect on the value added from their contributions to mathematical discussions and group problem-solving activities
- Topic 2
  - Use properties of addition and strategies to solve problems mentally.
  - Use rounding or compatible numbers to estimate sums and differences.
  - Model sums and differences of decimals.
  - Add decimals to the hundredths using standard algorithm.
  - Subtract decimals to the hundredths using standard algorithm.
  - Use prior math knowledge and equations or bar diagrams to solve problems.
- Topic 3
  - Use place value understanding and patterns to mentally multiply whole numbers and powers of 10.
  - Use rounding and compatible numbers to estimate products.
  - Multiply 3-digit by 2-digit numbers by combining equal groups and adding partial products.
  - Use knowledge about place value and multiplying with 2-digit and 3-digit numbers to multiply with zeros.
  - Use properties and the standard algorithm for multiplication to find product of multi-digit numbers.
  - Use models and strategies to solve word problems.
  - Critique the reasoning of others by asking questions, looking for flaws, and using prior knowledge of estimating products.
- Topic 4
  - Use knowledge about place value and patterns to find the product of a decimal number and a power of 10.
  - Use rounding and compatible numbers to estimate the product of a decimal and a whole

number.
- Use models to represent multiplying a decimal and a whole number.
- Use place value understanding and standard multiplication algorithm to multiply a decimal by a whole number.
- Use grids to model decimals and find the product of a decimal and a decimal.
- Multiply decimals using partial product and models.
- Use properties to multiply decimals.
- Use number sense and reasoning to place a decimal point in a product.
- Multiply decimals using the standard algorithm for multiplication and multiplication strategies.
- Use previously learned concepts and skills to represent and solve problems.

**Assessments (Pre, Formative, Summative, Other)** ***Denote required common assessments with an ****

- Placement Test (Source: Assessment Book or online resources) - Pre-Assessment
- Review, "What You Know" (Source: Student Book at the beginning of each topic) - Pre-Assessment
- *Topic 1 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment
- *Topic 2 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment
- *Topic 3 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment
- *Topic 4 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment
- Lesson Quick Checks (Source: Online resources) - Formative Assessment
- Quizzes (Source: ExamView, Standards Practice Workbook) - Formative Assessment
- Topics 1-4 Cumulative Benchmark Assessment (Source: Assessment Book or online resources) - Summative Assessment
- Student Self-Assessment Tool (Source: Teacher's Resource Masters, Vol. 2) - Alternative Assessment
- Evaluate student work using the Cognitive Rigor Matrix for Mathematics (Source: Assessment Book) - Alternative Assessment
- Portfolio Assessment of student work - Alternative Assessment

*Teaching and Learning Activities*

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|---|---|
| *Activities* | enVision 2.0 lessons 1.1-1.7<br>enVision 2.0 lessons 2.1-2.7<br>enVision 2.0 lessons 3.1-3.7<br>enVision 2.0 lessons 4.1-4.10<br>**Additional Resources Located in the Google Drive Folder**<br>Between 1.2 and 1.3 - Supplement Lesson (Decimal Lesson)<br>1.4 - Supplement Activity<br>1.6 - Supplement Activity |
| *Differentiation Strategies* | - Reteaching Activities in Student Book<br>- Leveled Center Games<br>- Online Resources (today's challenge, accessible student edition of the text, games, another look activities and videos, reteaching activities)<br>- Short Challenge Activities<br>- Long Challenge Activities<br>- Math Diagnosis and Intervention System<br>- ELL Toolkit & ELL Activities within the Teacher Manual<br>- Problem-Solving Reading Mats and Teacher Guide<br>- Differentiation Strategies for Special Education Students<br>- Differentiation Strategies for Gifted and Talented Students<br>- Differentiation Strategies for ELL Students<br>- Differentiation Strategies for At Risk Students<br>- Differentiation Strategies for Students with a 504 |

Resources

- enVision 2.0 Resources
  - Student Book
  - Teacher Manual
  - Teacher Resource Guide
  - Assessment Book
  - Pearsonrealize.com (online platform)
    - Math Games
    - Digital Text
    - Math Videos
    - Virtual Manipulatives
    - Math Diagnosis and Intervention System
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  - ELL Toolkit & ELL Activities within the Teacher Manual
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- WTPS Assessment Pack (Located in Google Drive Folder)
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| **Grade Level & Content:** | Fifth Grade Mathematics |
| **Unit Plan Title:** | ***Unit 2***: Division of Whole Numbers & Decimals, and Multiplication, Addition, & Subtraction of Fractions |
| **Time Frame:** | 11 weeks (please see pacing calendar) |

**Anchor Standards/Domain*** ***i.e: ELA: reading, writing i.e.: Math: Number and Operations in Base 10**

Math:

- Number and Operations in Base Ten
- Number and Operations - Fractions

**Unit Summary**

In this unit, students will focus on deep understanding of whole numbers and decimal operations. Students will use models and strategies to divide with 2-digit divisors and perform all four operations on decimals through hundredths. Students will understand how to use equivalent fractions to add and subtract fractions and mixed numbers. Students will also acquire a deeper understanding of multiplication from whole numbers to fractions.

**Standard Number(s)**

- 5.NBT.A.2: Understand the place value system. 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.
- 5.NBT.B.6: Perform operations with multi-digit whole numbers and with decimals to the hundredths. 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.
- 5.NBT.B.7: Perform operations with multi-digit whole numbers and with decimals to the hundredths. 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.
- 5.NF.A.1: Use equivalent fractions as a strategy to add and subtract fractions. 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. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)*
- 5.NF.A.2: Use equivalent fractions as a strategy to add and subtract fractions. 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. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2*.
- 5.NF.B.4a: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. Interpret the product $(a/b) \times q$ as $a$ parts of a partition of $q$ into $b$ equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)*

- 5.NF.B.4b: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
- 5.NF.B.5a: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Interpret multiplication as scaling (resizing) by: Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
- 5.NF.B.5b: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Interpret multiplication as scaling (resizing) by: Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying $a/b$ by 1.
- 5.NF.B.6: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
- Mathematical Practices 1-8
    1. Make sense of problems and persevere in solving them.
    2. Reason abstractly and quantitatively.
    3. Construct viable arguments and critique the reasoning of others.
    4. Model with mathematics.
    5. Use appropriate tools strategically.
    6. Attend to precision.
    7. Look for and make use of structure.
    8. Look for and express regularity in repeated reasoning.
- Career Readiness, Life Literacies, and Key Skills Practices
    - CRP4. Demonstrate creativity and innovation.
    - CRP5. Utilize critical thinking to make sense of problems and persevere in solving them.
    - CRP9. Work productively in teams while using cultural/global competence.
- Career Readiness, Life Literacies, and Key Skills
    - 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
    - 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.
- WIDA
    - ELD Standard 1: The Language of Social and Instructional Language
    - ELD Standard 3: The Language of Mathematics
- Computer Science and Design Thinking
    - 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
    - 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

**Essential Question(s)**

- Topic 5: What are the standard procedures for estimating and finding quotients involving decimals?
- Topic 6: What is the standard procedure for estimating and finding quotients involving decimals?
- Topic 7: How can sums and differences of fractions and mixed numbers be estimated? What are standard procedures for adding and subtracting fractions and mixed numbers?
- Topic 8: What does it mean to multiply whole numbers and fractions? How can multiplication with whole numbers and fractions be shown using models and symbols?

**Enduring Understandings**

Topic 5

- Division problems with dividends and divisors that are multiples of ten can be solved using basic facts and patterns.
- Using compatible numbers is one of many estimation strategies that can be used to estimate a quotient.
- Area models and arrays are two ways to represent division.
- Dividing with 2-digit divisors is just an extension of the steps for dividing with 1-digit numbers.
- Compatible numbers can be used to simplify division problems.
- Estimation and place value understandings can be used to determine where to place the first digit in a quotient.
- Good math thinkers make sense of problems and think of ways to solve them. If they get stuck, they don't give up.

Topic 6:

- Place value patterns can be used to divide decimals by power of 10.
- Rounding and compatible numbers can be used to estimate quotients with decimals.
- The standard algorithm used for dividing decimals is an extension of the standard algorithm for dividing whole numbers.
- An area model uses the inverse relationship between multiplication and division to show dividing a decimal by a 2-digit whole number.
- Number sense can be used to place the decimal point in the quotient when dividing a decimal by a decimal.
- When dividing a decimal it is sometimes necessary to annex zeros to the dividend so you can keep dividing until there is no remainder.
- Good math thinkers know how to think about words and numbers to solve problems.

Topic 7:

- A number line can be used to determine if estimates are reasonable.
- Fractions with unlike denominators can be represented using equivalent fractions with like denominators.
- Fractions with unlike denominators can be added by replacing them with equivalent fractions that have common denominators.
- Fractions with unlike denominators can be subtracted by replacing them with equivalent fractions that have common denominators.
- Addition and subtraction of fractions may both be needed to solve a problem.
- Sums and differences of a mixed number can be estimated by rounding to the nearest whole number, or by using benchmark fractions.
- Models can be used to show different ways of adding or subtracting mixed numbers.
- Adding and subtracting mixed numbers is an extension of adding and subtracting fractions.
- Good math thinkers choose and apply math they know to show and solve problems from everyday life.

Topic 8:

- Models can be used to show a product of a whole number and a fraction and a fraction can be interpreted as repeated addition.
- Multiplying a fraction and a whole number involves both multiplication and division.
- Different methods can be used to multiply a fraction and a whole number.

- Visual models, such as fraction strips, number lines, area models, and bar diagrams, can be used to represent multiplication of a fraction and a fraction.
- To find a product of two fractions, multiply the numerators, and then multiply the denominators. Recognize when a product is less than or greater than 1.
- An area model can be used to represent the product of two fractions.
- Multiplying mixed numbers is an extension of multiplying fractions.
- The relative size of the factors can be used to determine the relative size of a product.
- Good math thinkers make sense of problems and think of ways to solve them. If they get stuck the don't give up.

**Interdisciplinary Connections**

Activities to connect math with other disciplines from the enVision 2.0 resources:

- Language Arts (RI.5.4, W.5.2)
  - Problem solving reading mats and activities (Source: Problem-Solving Reading Activity Guide)
  - Topic journal activities (Source: Teacher Manual)
- Science (5-ESS2-2, 5-PS1-2, 5-PS3-1)
  - Math and science projects (Source: Teacher Manual)
  - Math and science activities (Source: Teacher's Resource Masters)

**In this unit plan, the following 21st Century themes and skills are addressed.**

| *Check all that apply.* **21st Century Themes** | | *Check all that apply.* **21st Century Skills** | |
|---|---|---|---|
| | **Global Awareness** | | **Creativity and Innovation** |
| | **Environmental Literacy** | X | **Critical Thinking and Problem Solving** |
| | **Health Literacy** | X | **Communication** |
| | **Civic Literacy** | X | **Collaboration** |
| | **Financial, Economic, Business, and Entrepreneurial Literacy** | | |

**Student Learning Targets/Objectives (Students will know/Students will understand)**

- Topic 5
  - Use place value patterns, mental math, and models to find quotients.
  - Use compatible numbers and place value patterns to estimate quotients.
  - Solve division problems using partial quotients.
  - Find the quotient when the divisor is a multiple of 10.
  - Decide where to place the first digit of the quotient when dividing whole numbers.
  - Use estimation to decide whether a quotient is reasonable.
  - Make sense of problems and keep working.
- Topic 6
  - Use mental math and place value patterns to divide a decimal by powers of 10.
  - Use compatible numbers and rounding to estimate quotients in problems with decimals.
  - Use models to help you find quotients in problems involving decimals.
  - Use standard algorithm for division to divide decimals by a whole number or another decimal.

- Use models to show relationship between multiplication and division to divide decimals.
- Use number sense and reasoning to place the decimal point in the quotient.
- Use the standard algorithm to divide decimals, annexing the zeros as needed.
- Use reasoning to solve problems by making sense of quantities and relationships in the situation.

- Topic 7
  - Estimate sums and differences of fractions by using the nearest half or whole numbers.
  - Find common denominators for fractions with unlike denominators.
  - Add and subtract with unlike denominators using equivalent fractions with a common denominator.
  - Write equivalent fractions to add and subtract fractions with unlike denominators.
  - Estimate sums and differences of fractions and mixed numbers.
  - Add and subtract mixed numbers using models.
  - Add and subtract mixed numbers using equivalent fractions and a common denominator.
  - Represent a problem situation with a mathematical model.
- Topic 8
  - Multiply a whole number by a fraction.
  - Multiply a fraction by a whole number.
  - Multiply fractions and whole numbers.
  - Use models to multiply two fractions.
  - Find the area of a rectangle using fractions and diagrams.
  - Use models, equations, and previously learned strategies to multiply mixed numbers
  - Compare the the size of the product to the size of the factor without multiplying to consider multiplication as scaling.
  - Use previously learned knowledge to make sense of problems and persevere in solving them .

**Assessments (Pre, Formative, Summative, Other)** ***Denote required common assessments with an ****

- Placement Test (Source: Assessment Book or online resources) - Pre-Assessment
- Review, “What You Know” (Source: Student Book at the beginning of each topic) - Pre-Assessment
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- *Topic 6 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment
- *Topic 7 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment
- *Topic 8 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment
- Lesson Quick Checks (Source: Online resources) - Formative Assessment
- Quizzes (Source: ExamView, Standards Practice Workbook) - Formative Assessment
- Topics 1-8 Cumulative Benchmark Assessment (Source: Assessment Book) - Summative Assessment
- *Topics 1-8 Cumulative Benchmark Assessment (Source: LinkIt) - Summative Assessment
- Student Self-Assessment Tool (Source: Teacher’s Resource Masters, Vol. 2) - Alternative Assessment
- Evaluate student work using the Cognitive Rigor Matrix for Mathematics (Source: Assessment Book) - Alternative Assessment
- Portfolio Assessment of student work - Alternative Assessment

*Teaching and Learning Activities*

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|---|---|
| *Activities* | enVision 2.0 lessons 5.1-5.8<br>enVision 2.0 lessons 6.1-6.9<br>enVision 2.0 lessons 7.1-7.12<br>enVision 2.0 lessons 8.1-8.9 |

| | |
|---|---|
| *Differentiation Strategies* | - Reteaching Activities in Student Book<br>- Leveled Center Games<br>- Online Resources (today's challenge, accessible student edition of the text, games, another look activities and videos, reteaching activities)<br>- Short Challenge Activities<br>- Long Challenge Activities<br>- Math Diagnosis and Intervention System<br>- ELL Toolkit & ELL Activities within the Teacher Manual<br>- Problem-Solving Reading Mats and Teacher Guide<br>- Differentiation Strategies for Special Education Students<br>- Differentiation Strategies for Gifted and Talented Students<br>- Differentiation Strategies for ELL Students<br>- Differentiation Strategies for At Risk Students<br>- Differentiation Strategies for Students with a 504 |

Resources

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  - Problem-Solving Reading Mats & Teacher Guide
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  - ELL Toolkit & ELL Activities within the Teacher Manual
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- WTPS Assessment Pack (Located in Google Drive Folder)
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|---|---|
| **Grade Level & Content:** | Fifth Grade Mathematics |
| **Unit Plan Title:** | ***Unit 3***: Division of Fractions, Volume, Measurement, and Data |
| **Time Frame:** | 8 weeks (please see pacing calendar) |

**Anchor Standards/Domain*** ***i.e: ELA: reading, writing i.e.: Math: Number and Operations in Base 10**

Math:

- Numbers and Operations in Base Ten
- Number and Operations - Fractions
- Measurement and Data

**Unit Summary**

In this unit, students will acquire a deeper understanding of division from whole numbers to fractions. Students will know the measurable attribute of volume and use numbers and operations to compute the volume of a rectangular prism and composite shapes. Students will focus on using multiplication and division to convert measurement of length, capacity, weight, and mass within the customary and metric systems. Students will also focus on using line plots to represent and interpret data, with an emphasis on data involving fractions.

**Standard Number(s)**

- 5.NBT.A.2: Understand the place value system. 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.
- 5.NBT.B.5: Perform operations with multi-digit whole numbers and with decimals to the hundredths. Fluently multiply multi-digit whole numbers using the standard algorithm.
- 5.NBT.B.6: Perform operations with multi-digit whole numbers and with decimals to the hundredths. 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.
- 5.NF.A.2: Use equivalent fractions as a strategy to add and subtract fractions. 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. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2*.
- 5.NF.B.3: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. 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. *For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*
- 5.NF.B.6: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
- 5.NF.B.7a: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Apply and extend previous understandings of division to divide unit fractions by

whole numbers and whole numbers by unit fractions. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. *For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3*.

- 5.NF.B.7b: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4*.
- 5.NF.B.7c: Apply and extend previous understandings of multiplication and division to multiply and divide fractions. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?*
- 5.MD.A.1: Convert like measurement units within a given measurement system. 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.
- 5.MD.B.2: Represent and interpret data. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally*.
- 5.MD.C.3a: Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Recognize volume as an attribute of solid figures and understand concepts of volume measurement. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
- 5.MD.C.3b: Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Recognize volume as an attribute of solid figures and understand concepts of volume measurement. A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units.
- 5.MD.C.4: Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units.
- 5.MD.C.5a: Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.
- 5.MD.C.5b: Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. Apply the formulas $V = l \times w \times h$

and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.

- 5.MD.C.5c: Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.
- Mathematical Practices 1-8
    1. Make sense of problems and persevere in solving them.
    2. Reason abstractly and quantitatively.
    3. Construct viable arguments and critique the reasoning of others.
    4. Model with mathematics.
    5. Use appropriate tools strategically.
    6. Attend to precision.
    7. Look for and make use of structure.
    8. Look for and express regularity in repeated reasoning.
- Career Readiness, Life Literacies, and Key Skills Practices
    - CRP4. Demonstrate creativity and innovation.
    - CRP5. Utilize critical thinking to make sense of problems and persevere in solving them.
    - CRP9. Work productively in teams while using cultural/global competence.
- Career Readiness, Life Literacies, and Key Skills
    - 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
    - 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.
- WIDA
    - ELD Standard 1: The Language of Social and Instructional Language
    - ELD Standard 3: The Language of Mathematics
- Computer Science and Design Thinking
    - 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
    - 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

**Essential Question(s)**

- Topic 9: How are fractions related to division? How can you divide with whole numbers and unit fractions?
- Topic 10: What is the meaning of volume of a solid? How can the volume of a rectangular prism be found?
- Topic 11: What are customary measurement units and how are they related? What are metric measurement units and how are they related?
- Topic 12: How can line plots be used to represent data and answer questions?

**Enduring Understandings**

Topic 9:

- A fraction can be interpreted as division of the numerator by the denominator.
- A fraction or a mixed number can represent the quotient of two whole numbers.
- Models can be used to show how dividing a whole number by a fraction relates to multiplication.
- Visual fraction models can be used to represent and solve problems involving whole numbers divided by unit fractions.
- Dividing a unit fraction by a non-zero whole number can be modeled by showing parts of a whole divided into equal parts.
- Area model and number lines can be used to represent and solve division problems involving whole numbers and fractions.
- Some problems can be solved by first finding and solving one or more sub-problems.
- Good math thinkers look for things that repeat, and they make generalizations.

Topic 10:

- Volume can be measured by counting the number of cubic units needed to fill a three dimensional figure.
- Formulas can be used to find the volume of a rectangular prisms and cubes.
- The volume of a solid figure composed of rectangular prisms can be found by adding the volumes of each rectangular prism.
- Some problems can be solved by first finding and solving one or more sub-problems and then using the answers to solve the original problem.
- Good math thinkers know how to pick the right tools to solve math problems.

Topic 11:

- Multiplication and division are used to convert among different units of length in a customary and metric system.
- Multiplication and division are used to convert among different units of capacity in a customary and metric system.
- Multiplication and division are used to convert among different units of weight in a customary and metric system.
- Some problems can be solved by first finding and solving one or more sub-problems and then using the answers to solve the original problem.
- Good math thinkers are careful about what they write and what they say, so their ideas about math are clear.

Topic 12:

- Line plots are one way to organize and represent numerical data collected in a survey. You can use line plots to answer questions about a data set.
- Line plots are one way to organize and represent numerical data. You can use a line plot to see how data are distributed.
- You can use line plots to solve problems that involve data.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.

**Interdisciplinary Connections**

Activities to connect math with other disciplines from the enVision 2.0 resources:

- Language Arts (RI.5.4, W.5.2)
    - Problem solving reading mats and activities (Source: Problem-Solving Reading Activity Guide)
    - Topic journal activities (Source: Teacher Manual)
- Science (5-PS1-1, 5-PS1-3, 5-ESS2-1)
    - Math and science projects (Source: Teacher Manual)
    - Math and science activities (Source: Teacher's Resource Masters)

**In this unit plan, the following 21st Century themes and skills are addressed.**

| *Check all that apply.* **21st Century Themes** | | *Check all that apply.* **21st Century Skills** | |
|---|---|---|---|
| | **Global Awareness** | | **Creativity and Innovation** |
| | **Environmental Literacy** | X | **Critical Thinking and Problem Solving** |
| | **Health Literacy** | X | **Communication** |
| | **Civic Literacy** | X | **Collaboration** |
| | **Financial, Economic, Business, and Entrepreneurial Literacy** | | |

**Student Learning Targets/Objectives (Students will know/Students will understand)**

- Topic 9
  - Understand how fractions are related to division.
  - Implement division of fractions to show quotients as fractions and mixed numbers.
  - Use multiplication to divide a whole number by a unit fraction.
  - Use models such as pictorial models and number lines to show dividing a whole number by a unit fraction.
  - Use models to divide unit fractions by a non-zero whole numbers.
  - Solve multi-step problems involving division with unit fractions.
  - Notice repetition in calculations and generalize about how to divide whole numbers and unit fractions.
- Topic 10
  - Find the volume of solid figures.
  - Find the volume of rectangular prisms using a formula.
  - Find the volume of prisms in different ways.
  - Find the volume of solid figure that is a combination of two or more rectangular prisms.
  - Use models, prior knowledge of volumes, and previously learned strategies to solve word problems involving volume.
  - Use previously learned knowledge of volumes to choose the appropriate tools to solve problems.
- Topic 11
  - Convert customary units of length.
  - Convert customary units of capacity.
  - Convert customary units of weight.
  - Convert metric units of length.
  - Convert metric units of capacity.
  - Convert metric units of mass.
  - Solve real-world problems with measurement conversions.
  - Be precise when solving measurement problems.
- Topic 12
  - Read and analyze line plots.
  - Organize and display data in a line plot.
  - Solve problems using data in a line plot.
  - Critique the reasoning of others using understanding of line plots and fractions.

| **Assessments (Pre, Formative, Summative, Other)** | ***Denote required common assessments with an **** |
|---|---|
| • Placement Test (Source: Assessment Book or online resources) - Pre-Assessment<br>• Review, "What You Know" (Source: Student Book at the beginning of each topic) - Pre-Assessment<br>• *Topic 9 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment<br>• *Topic 10 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment<br>• *Topic 11 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment<br>• *Topic 12 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment<br>• Lesson Quick Checks (Source: Online resources) - Formative Assessment<br>• Quizzes (Source: ExamView, Standards Practice Workbook) - Formative Assessment<br>• Topics 1-12 Cumulative Benchmark Assessment (Source: Assessment Book or online resources) - Summative Assessment<br>• Student Self-Assessment Tool (Source: Teacher's Resource Masters, Vol. 2) - Alternative Assessment<br>• Evaluate student work using the Cognitive Rigor Matrix for Mathematics (Source: Assessment Book) - Alternative Assessment<br>• Portfolio Assessment of student work - Alternative Assessment | |
| *Teaching and Learning Activities* | |
| *Activities* | enVision 2.0 lessons 9.1-9.8<br>enVision 2.0 lessons 10.1-10.6<br>enVision 2.0 lessons 11.1-11.8<br>enVision 2.0 lessons 12.1-12.4<br>**Lesson 10.1 - Supplement Activity (Located in the Google Drive Folder)** |
| *Differentiation Strategies* | - Reteaching Activities in Student Book<br>- Leveled Center Games<br>- Online Resources (today's challenge, accessible student edition of the text, games, another look activities and videos, reteaching activities)<br>- Short Challenge Activities<br>- Long Challenge Activities<br>- Math Diagnosis and Intervention System<br>- ELL Toolkit & ELL Activities within the Teacher Manual<br>- Problem-Solving Reading Mats and Teacher Guide<br>- Differentiation Strategies for Special Education Students<br>- Differentiation Strategies for Gifted and Talented Students<br>- Differentiation Strategies for ELL Students<br>- Differentiation Strategies for At Risk Students<br>- Differentiation Strategies for Students with a 504 |

Resources

- enVision 2.0 Resources
  - Student Book
  - Teacher Manual
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  - Problem-Solving Reading Mats & Teacher Guide
  - Center Games
  - ELL Toolkit & ELL Activities within the Teacher Manual
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- Short Challenge Activities (Located in Google Drive Folder)
- Long Challenge Activities (Located in Google Drive Folder)

| | |
|---|---|
| **Grade Level & Content:** | Fifth Grade Mathematics |
| **Unit Plan Title:** | ***Unit 4***: Equations, Patterns, Shapes, and Coordinate Planes |
| **Time Frame:** | 8 weeks (please see pacing calendar) |

**Anchor Standards/Domain*** ***i.e: ELA: reading, writing i.e.: Math: Number and Operations in Base 10**

Math:

- Operations and Algebraic Thinking
- Geometry

**Unit Summary**

In this unit, students will learn the order of operations to evaluate, write, and interpret numerical expressions with grouping symbols. Students will develop an understanding of the coordinate system and graph pairs in the first quadrant of the coordinate plane to solve real world problems. Students will recognize patterns and relationships in a number sequence using a given rule. Students will understand the attributes belonging to a category of two dimensional shapes also belong to all subcategories of that category.

**Standard Number(s)**

- 5.OA.A.1: Write and interpret numerical expressions. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- 5.OA.A.2: Write and interpret numerical expressions. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product*.
- 5.OA.B.3: Analyze patterns and relationships. 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. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so*.
- 5.G.A.1: Graph points on the coordinate plane to solve real-world and mathematical problems. 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).
- 5.G.A.2: Graph points on the coordinate plane to solve real-world and mathematical problems. 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.
- 5.G.B.3: Classify two-dimensional figures into categories based on their properties. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.
- 5.G.B.4: Classify two-dimensional figures into categories based on their properties. Classify two-dimensional figures in a hierarchy based on properties.

- Mathematical Practices 1-8
    1. Make sense of problems and persevere in solving them.
    2. Reason abstractly and quantitatively.
    3. Construct viable arguments and critique the reasoning of others.
    4. Model with mathematics.
    5. Use appropriate tools strategically.
    6. Attend to precision.
    7. Look for and make use of structure.
    8. Look for and express regularity in repeated reasoning.
- Career Readiness, Life Literacies, and Key Skills Practices
    - CRP4. Demonstrate creativity and innovation.
    - CRP5. Utilize critical thinking to make sense of problems and persevere in solving them.
    - CRP9. Work productively in teams while using cultural/global competence.
- Career Readiness, Life Literacies, and Key Skills
    - 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
    - 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.
- WIDA
    - ELD Standard 1: The Language of Social and Instructional Language
    - ELD Standard 3: The Language of Mathematics
- Computer Science and Design Thinking
    - 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
    - 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

**Essential Question(s)**

- Topic 13: How is the value of a numerical expression found?
- Topic 14: How are points plotted? How are relationships shown on a graph?
- Topic 15: How can number patterns be analyzed and graphed? How can number patterns and graphs be used to solve problems?
- Topic 16: How can triangles and quadrilaterals be described, classified, and named?

**Enduring Understandings**

Topic 13:

- There is an agreed upon order in which operations are carried out in a numerical expression.
- The value of a numerical expression can be found by using the order of operations.
- Numerical expressions can represent the calculations needed to solve a problem.
- Numerical expressions show relationships among the quantities involved which you can interpret without evaluating the expressions.
- Good math thinkers know how to think about words and numbers to solve problems.

Topic 14:

- The coordinate system uses two perpendicular number lines intersecting at 0 to name the location of points in the plane.
- A coordinate grid has an x-axis and a y-axis that can be used to locate points in two dimensions.
- Points that lie on a line can be connected and extended to solve problems.
- Good math thinkers know how to think about words and numbers to solve problems.

Topic 15:

- Two patterns can be extended using the same rule and there will be a relationship between the patterns.
- Two patterns can be extended using rules and there will be a relationship between the patterns.
- A graph can show the relationship between two number sequences.
- Good math thinkers make sense of problems and think of ways to solve them. If they get stuck, they don't give up.

Topic 16:

- Triangles are classified by their sides and by their angles.
- Quadrilaterals are classified by their sides and by their angles.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.

**Interdisciplinary Connections**

Activities to connect math with other disciplines from the enVision 2.0 resources:

- Language Arts (RI.5.4, W.5.2)
  - Problem solving reading mats and activities (Source: Problem-Solving Reading Activity Guide)
  - Topic journal activities (Source: Teacher Manual)
- Science (5-ESS1-2, 5-LS1-1, 5-LS2-1)
  - Math and science projects (Source: Teacher Manual)
  - Math and science activities (Source: Teacher's Resource Masters)

**In this unit plan, the following 21st Century themes and skills are addressed.**

| *Check all that apply.* **21st Century Themes** | | *Check all that apply.* **21st Century Skills** | |
|---|---|---|---|
| | **Global Awareness** | | **Creativity and Innovation** |
| | **Environmental Literacy** | X | **Critical Thinking and Problem Solving** |
| | **Health Literacy** | X | **Communication** |
| | **Civic Literacy** | X | **Collaboration** |
| | **Financial, Economic, Business, and Entrepreneurial Literacy** | | |

**Student Learning Targets/Objectives (Students will know/Students will understand)**

- Topic 13
  - Use the order of operations to evaluate expressions.
  - Evaluate expressions with parentheses, brackets, and braces.
  - Write simple expressions that show calculations with numbers.
  - Interpret numerical expressions without evaluating them.
  - Use reasoning to solve problems by making sense of quantities and relationships in the situation.
- Topic 14
  - Locate points on a coordinate grid.
  - Graph points on a coordinate grid.
  - Solve real-world problems by graphing points.

- Use reasoning to solve problems by making sense of quantities and relationships in the situation.
- Topic 15
  - Analyze numerical patterns.
  - Use tables to identify relationships between patterns.
  - Analyze patterns and graph ordered pairs generated from number sequences.
  - Make sense of problems and persevere in solving them.
- Topic 16
  - Classify triangles by their angles and sides.
  - Classify quadrilaterals by their properties.
  - Classify quadrilaterals using a hierarchy.
  - Construct arguments about geometric figures.

**Assessments (Pre, Formative, Summative, Other)** ***Denote required common assessments with an ****

- Placement Test (Source: Assessment Book or online resources) - Pre-Assessment
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- *Topic 15 Assessment (Source: WTPS Assessment Pack in Google Folder) - Summative Assessment
- Topic 16 Assessment (Source: Assessment Book or online resources) - Summative Assessment
- Lesson Quick Checks (Source: Online resources) - Formative Assessment
- Topics 1-16 Cumulative Benchmark Assessment (Source: Assessment Book or online resources) - Summative Assessment
- Quizzes (Source: ExamView, Standards Practice Workbook) - Formative Assessment
- *End of Year Test (Source: LinkIt) - Summative Assessment
- End of Year Test (Source: Assessment Book) - Summative Assessment
- Student Self-Assessment Tool (Source: Teacher's Resource Masters, Vol. 2) - Alternative Assessment
- Evaluate student work using the Cognitive Rigor Matrix for Mathematics (Source: Assessment Book) - Alternative Assessment
- Portfolio Assessment of student work - Alternative Assessment

*Teaching and Learning Activities*

| | |
|---|---|
| *Activities* | enVision 2.0 lessons 13.1-13.5<br>enVision 2.0 lessons 14.1-14.4<br>enVision 2.0 lessons 15.1-15.4<br>enVision 2.0 lessons 16.1-16.4 |
| *Differentiation Strategies* | - Reteaching Activities in Student Book<br>- Leveled Center Games<br>- Online Resources (today's challenge, accessible student edition of the text, games, another look activities and videos, reteaching activities)<br>- Short Challenge Activities<br>- Long Challenge Activities<br>- Math Diagnosis and Intervention System<br>- ELL Toolkit & ELL Activities within the Teacher Manual<br>- Problem-Solving Reading Mats and Teacher Guide<br>- Differentiation Strategies for Special Education Students<br>- Differentiation Strategies for Gifted and Talented Students<br>- Differentiation Strategies for ELL Students<br>- Differentiation Strategies for At Risk Students<br>- Differentiation Strategies for Students with a 504 |

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