# Wayne Township Public Schools Grade 3 Math Curriculum

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# Wayne Township Public Schools Grade 3 Math Curriculum

Grade Level & Content:	Grade 3 Mathematics	
Unit Plan Title:	Unit 1: Understanding Multiplication and Division	
Time Frame:	9 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

#### **Unit Summary**

In this unit, students will learn how to interpret the meaning of multiplication and division, and begin to use patterns to build fluency with multiplication facts. Students will focus on using known facts and properties of multiplication to learn the multiplication facts with factors of 3, 4, 6, 7, and 8. Finally, students will use the relationship between multiplication and division to learn division facts.

## Standard Number(s)

- 3.OA.A.1: Represent and solve problems involving multiplication and division. Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as  $5 \times 7$ .
- 3.OA.A.2: Represent and solve problems involving multiplication and division. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.
- 3.OA.A.3: Represent and solve problems involving multiplication and division. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- 3.OA.A.4: Represent and solve problems involving multiplication and division. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 ×  $? = 48, 5 = \_ \div 3, 6 \times 6 = ?$
- 3.OA.B.5: Understand properties of multiplication and the relationship between multiplication and division. Apply properties of operations as strategies to multiply and divide. Examples: If  $6 \times 4 = 24$  is known, then  $4 \times 6 = 24$  is also known. (Commutative property of multiplication.)  $3 \times 5 \times 2$  can be found by  $3 \times 5 = 15$ , then  $15 \times 2 = 30$ , or by  $5 \times 2 = 10$ , then  $3 \times 10 = 30$ . (Associative property of multiplication.) Knowing that  $8 \times 5 = 40$  and  $8 \times 2 = 16$ , one can find  $8 \times 7$  as  $8 \times (5 + 2) = (8 \times 5) + 16$  $(8 \times 2) = 40 + 16 = 56$ . (Distributive property.)
- 3.OA.B.6: Understand properties of multiplication and the relationship between multiplication and division. Understand division as an unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.
- 3.OA.D.8: Solve problems involving the four operations, and identify and explain patterns in arithmetic. Solve two-step word problems using the four operations. Represent these problems using

- equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- 3.OA.D.9: Solve problems involving the four operations, and identify and explain patterns in arithmetic. I dentify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
- 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
  - o CRP4. Demonstrate creativity and innovation.
  - o CRP5. Utilize critical thinking to make sense of problems and persevere in solving them.
  - o CRP9. Work productively in teams while using cultural/global competence.
- Career Readiness, Life Literacies, and Key Skills
  - o 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
  - o 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.
- WIDA
  - o ELD Standard 1: The Language of Social and Instructional Language
  - o ELD Standard 3: The Language of Mathematics
- Computer Science and Design Thinking
  - o 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
  - o 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: What are different meanings of multiplication and division?
- Topic 2: How can unknown multiplication facts be found using patterns and properties?
- Topic 3: How can unknown multiplication facts be found using known facts?
- Topic 4: How can unknown division facts be found using known multiplications facts?

## **Enduring Understandings**

# Topic 1

- Some real world problems that involve joining or separating equal groups or making comparisons can be solved using multiplication.
- Repeated addition that involves joining equal groups is one way to think about multiplication.
- Multiplication on the number-line can involve joining equal groups and is one way to think about multiplication.
- An array involves displaying objects in equal rows and columns, and is one way to think about multiplication.
- Two numbers can be multiplied in any order and the product remains the same.
- Sharing involves separating equal groups and is one way to think about division.
- Repeated subtraction involves separating equal groups and is one way to think about division.
- Good math thinkers know how to pick the right tools to solve math problems.

#### Topic 2:

- There are patterns in the products for multiplication with factors of 2 or 5.
- There are patterns in the products for multiplication with factor of 9.
- There are patterns in the products for multiplication with factors of 0 or 1. The product of 0 and any number is 0. The product of 1 and any number is that same number.
- Patterns can be used to solve multiplication problems with a factor of 10.
- Basic multiplication facts can be found by identifying patterns.
- Good math thinkers choose and apply math they know to show and solve problems from everyday life.

#### Topic 3:

- The Distributive Property can be used to break a large array into smaller arrays.
- Basic multiplication facts with 3, 4, 6, 7, or 8 as a factor can be found by breaking apart the unknown fact into known facts. The answers to the known facts are added to get the final products.
- Strategies such as bar diagrams and arrays with known facts can be used to solve multiplication problems.
- Three or more numbers can be grouped and multiplied in any order.
- Good math thinkers look for things that repeat, and they make generalizations.

#### Topic 4:

- Multiplication and division have an inverse relationship.
- The inverse relationship between multiplication and division can be used to find division facts; every division fact has a related multiplication fact.
- Factors and products can be identified by patterns as well as other characteristics; such as even or odd.
- Any number (except 0) divided by itself is equal to 1. Any number divided by 1 is that number. 0 divided by any number (except 0) is 0. 0 cannot be a divisor.
- Patterns and known facts can be used to find unknown multiplication facts. Division facts can be found by thinking of a related multiplication fact.
- You can use a multiplication or division fact to find the unknown value in an equation.
- Good math thinkers make sense of problems and think of ways to solve them. if they get stuck, they don't give up.

#### **Interdisciplinary Connections**

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

- Language Arts (RI.3.1, RI.3.4, W.3.2)
  - o Problem solving reading mats and activities (Source: Problem-Solving Reading Activity Guide)
  - Topic journal activities (Source: Teacher Manual)
- Science (3-5-ETS1-2, 3-LS2-1, 3-LS3-1, 3-LS4-2, 3-PS2-1, 3-PS2-2)
  - Math and science projects (Source: Teacher Manual)
  - Math and science activities (Source: Teacher's Resource Masters)

In this unit plan, the following 21 <sup>st</sup> Century themes and skills are addressed.				
Check all that apply. <b>21<sup>st</sup> Century Themes</b>		Check all that apply. 21 <sup>st</sup> Century Skills		
		Global Awareness		Creativity and Innovation
		Environmental Literacy	Х	Critical Thinking and Problem Solving
		Health Literacy	Х	Communication
		Civic Literacy	Х	Collaboration
		Financial, Economic, Business, and Entrepreneurial Literacy		-

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

- Topic 1
  - o Use repeated addition to show the relationship between multiplication and addition.
  - o Use number lines to join equal groups.
  - o Use arrays as one way to think about and understand multiplication.
  - o Understand and use the Commutative Property of Multiplication.
  - o Use sharing to separate equal groups and to think about division.
  - o Use repeated subtraction to show the relationship between division and subtraction.
  - o Think strategically about available tools that can be used to solve problems.
- Topic 2
  - o Gain fluency in multiplication when using 2 and 5 as factors.
  - o Gain fluency in multiplication when using 9 as a factor.
  - o Gain fluency in multiplication when multiplying by 0 or 1.
  - o Gain fluency in multiplication when multiplying by 10.
  - o Students will use number relationships and patterns to develop reasoning strategies to support their recall of the basic multiplication facts.
  - o Use previously learned concepts and skills to represent and solve problems.
- Topic 3
  - o Use the Distributive Property to solve problems involving multiplication within 100.
  - o Use the Distributive Property to break apart unknown facts with 3, 4, 6, 7, or 8 as a factor.
  - o Use strategies such as bar diagrams and arrays with known facts to solve multiplication problems.
  - o Use the Associative Property of Multiplication to group 3 factors and multiply.
  - o Use repeated reasoning with known facts to make generalizations when multiplying.

- Topic 4
  - o Use multiplication facts to divide.
  - o Use multiplication facts to find related division facts.
  - o Use knowledge of even and odd numbers to identify multiplication patterns.
  - o Use properties to understand division involving 0 and 1.
  - o Use patterns and known facts to find unknown multiplication facts.
  - o Use multiplication and division facts to find unknown values in equations.
  - o Use previously learned concepts to find and answer hidden questions to 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

Portfolio Assessment of student work - Alternative Assessment				
	Teaching and Learning Activities			
Activities	enVision 2.0 lessons 1.1-1.7 enVision 2.0 lessons 2.1-2.6 enVision 2.0 lessons 3.1-3.8 enVision 2.0 lessons 4.1-4.9			
Differentiation Strategies	<ul> <li>Reteaching Activities in Student Book</li> <li>Leveled Center Games</li> <li>Online Resources (today's challenge, accessible student edition of the text, games, another look activities and videos, reteaching activities)</li> <li>Short Challenge Activities</li> <li>Long Challenge Activities</li> <li>Math Diagnosis and Intervention System</li> <li>ELL Toolkit &amp; ELL Activities within the Teacher Manual</li> <li>Problem-Solving Reading Mats and Teacher Guide</li> <li>Differentiation Strategies for Special Education Students</li> <li>Differentiation Strategies for Gifted and Talented Students</li> <li>Differentiation Strategies for At Risk Students</li> <li>Differentiation Strategies for Students with a 504</li> </ul>			

#### Resources

- enVision 2.0 Resources
  - Student Book
  - Teacher Manual
  - o Teacher Resource Guide
  - Assessment Book
  - Pearsonrealize.com (online platform)
    - Math Games
    - Digital Text
    - Math Videos
    - Virtual Manipulatives
    - Math Diagnosis and Intervention System
  - o Problem-Solving Reading Mats & Teacher Guide
  - Center Games
  - ELL Toolkit & ELL Activities within the Teacher Manual
  - Standards Practice Workbook and Teacher Manual
  - ExamView
- Math Manipulatives
- WTPS Assessment Pack (Located in Google Drive Folder)
- Short Challenge Activities (Located in Google Drive Folder)
- Long Challenge Activities (Located in Google Drive Folder)

Grade Level & Content: Grade 3 Mathematics		
Unit Plan Title:	Unit 2: Area, Data, and the Four Operations	
Time Frame:	9 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
- Measurement & Data
- Number and Operations in Base Ten

## **Unit Summary**

In this unit, students will learn how to apply strategies to achieve fluency with multiplication and division facts within 100. Students will understand the concept of area, beginning with concrete models and then moving to pictorial and abstract. Students will focus on reading and making scaled picture graphs and scaled bar graphs that represent a data set with several categories. Students will also focus on fluency with addition and subtraction.

#### Standard Number(s)

- 3.NBT.A.1: Use place value understanding and properties of operations to perform multi-digit arithmetic. Use place value understanding to round whole numbers to the nearest 10 or 100.
- 3.NBT.A.2: Use place value understanding and properties of operations to perform multi-digit arithmetic. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
- 3.OA.A.3: Represent and solve problems involving multiplication and division. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- 3.OA.C.7: Multiply and divide within 100. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
- 3.OA.D.8: Solve problems involving the four operations, and identify and explain patterns in arithmetic. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- 3.OA.D.9: Solve problems involving the four operations, and identify and explain patterns in arithmetic. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
- 3.MD.B.3: Represent and interpret data. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
- 3.MD.C.5a: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Recognize area as an attribute of plane figures and understand concepts of area measurement. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.

- 3.MD.C.5b: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Recognize area as an attribute of plane figures and understand concepts of area measurement. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
- 3.MD.C.6: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units).
- 3.MD.C.7a: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Relate area to the operations of multiplication and addition. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
- 3.MD.C.7b: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Relate area to the operations of multiplication and addition. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- 3.MD.C.7c: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Relate area to the operations of multiplication and addition. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.
- 3.MD.C.7d: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Relate area to the operations of multiplication and addition. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
- Mathematical Practices 1-8
  - 1. Make sense of problems and persevere in solving them.
  - 2. Reason abstractly and quantitatively.
  - 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
  - o CRP4. Demonstrate creativity and innovation.
  - o CRP5. Utilize critical thinking to make sense of problems and persevere in solving them.
  - o 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.
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- WIDA
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- Computer Science and Design Thinking
  - o 8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
  - o 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 strategies to solve multiplication and division facts?
- Topic 6: How can area be measured and found?
- Topic 7: How can data be represented, interpreted, and analyzed?
- Topic 8: How can sums and differences be estimated and found mentally?

#### **Enduring Understandings**

#### Topic 5

- There are patterns in the factors and the products for multiplications facts.
- Any division problem can be thought of as a missing factor multiplication problem.
- Strategies and reasoning can be used to recall multiplication and division basic facts.
- Strategies such as using properties of operations, drawing, and skip counting can be used to multiply.
- Some real-world problems can be represented and solved using different multiplication and division strategies.
- Some real-world problems that involve equal groups can be solved using multiplication.
- Some real-world problems that involve equal groups can be solved using division.
- Good math thinkers look for relationships in math to help solve problems.

#### Topic 6:

- The amount of space inside a shape is its area, and area can be found or estimated using unit squares.
- Area can be measured using nonstandard units, including unit squares of different sizes.
- Standard measurement units are used for consistency in finding and communicating measurements.
- The amount of space inside a region is its area, and area can be found by counting unit squares or by multiplying the side lengths.
- The areas of rectangles can be used to model the Distributive Property.
- The area of some irregular shapes can be found by dividing the original shape into rectangles, finding the area of each rectangle, and adding all the areas.
- Good math thinkers look for relationships in math to help solve problems.

# Topic 7:

- Certain types of graphs are appropriate for certain kinds of data. Picture graphs and bar graphs make it easy to compare data.
- The type of graph used is based on the data being presented. The key for a picture graph determines the number of pictures needed to represent the data.
- The type of graph used is based on the data being presented. In a scaled bar graph, the scale determines how long each bar needs to be to represent every number in the data set.
- Some problems can be solved by making, reading, and analyzing a graph.
- Good math thinkers are careful about what they write and say, so their ideas about math are clear.

#### Topic 8:

- Solve real-world problems that involve joining, separating, part-part whole, or comparing using addition. Two or more numbers can be added in any order, and the sum of any number and 0 is that number.

- Generalizations about how addition works emerge from investigating patterns and reasoning about mathematical relationships.
- Rounding is a process for finding multiples of 10 and 100, closest to a given number.
- There is more than one way to do mental math. Techniques involve changing the numbers or the expressions so that calculations are easy to do mentally.
- There is more than one way to estimate a sum. Two ways to estimate are rounding and using compatible numbers.
- There is more than one way to estimate a difference. Two ways to estimate are rounding and using compatible numbers.
- Addition and subtraction have an inverse relationship. The relationship can be used to solve problems.
- Good math thinkers choose and apply math they know to show & solve problems from everyday life.

# **Interdisciplinary Connections**

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

- Language Arts (RI.3.1, RI.3.4, W.3.2)
  - Problem solving reading mats and activities (Source: Problem-Solving Reading Activity Guide)
  - Topic journal activities (Source: Teacher Manual)
- Science (3-ESS2-1, 3-ESS2-2, 3-ESS3-1, 3-LS3-2, 3-LS4-2)
  - Math and science projects (Source: Teacher Manual)
  - Math and science activities (Source: Teacher's Resource Masters)

In this	In this unit plan, the following 21 <sup>st</sup> Century themes and skills are addressed.				
	Check all that apply.  21 <sup>st</sup> Century Themes			Check all that apply. 21 <sup>st</sup> Century Skills	
	Global Awareness			Creativity and Innovation	
	Environmental Literacy		Х	Critical Thinking and Problem Solving	
	Health Literacy		Х	Communication	
	Civic Literacy		Х	Collaboration	
	Financial, Economic, Business, and Entrepreneurial Literacy				

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

- Topic 5
  - o Use the multiplication table and the Distributive Property to find patterns in factors and products.
  - o Use a multiplication table to find the missing factor in a division problem.
  - o Use number sense and reasoning while practicing multiplication and division basic facts.
  - o Use strategies such as skip counting and properties of operations to multiply.
  - o Solve multiplication and division problems that involve different strategies and representations.
  - o Use multiplication to write and solve real-world problems involving equal groups.
  - o Use division to write and solve real-world problems involving equal groups.
  - o Use the structures of multiplication and division to compare expressions.

- Topic 6
  - o Use unit squares to find the area of a shape.
  - o Use unit squares to find the area of a figure.
  - o Use standard units to measure the area of a shape.
  - o Use unit squares and multiplication to find the areas of squares and rectangles.
  - Use areas of rectangles to model the Distributive Property of Multiplication.
  - o Use areas of rectangles to find the area of irregular shapes.
  - o Solve problems by breaking apart or changing the problem into simpler problems.

#### Topic 7

- o Use graphs to compare and interpret data.
- o Use frequency tables and picture graphs to compare and interpret data.
- o Use scaled bar graphs to represent data sets.
- o Use graphs to solve problems.
- o Use words, symbols, and numbers to accurately and precisely solve math problems.

## Topic 8

- o Solve real world problems using properties of addition.
- o Identify patterns in the addition table and explain them using algebraic thinking.
- o Use place value and number-lines to round numbers.
- o Use mental math to add.
- o Use mental math to subtract.
- o Use rounding or compatible numbers to estimate a sum.
- o Use rounding or compatible numbers to estimate a difference.
- o Solve one step and multi-step problems using strategies based on the relationship between addition and subtraction.
- o Solve one step and multi-step problems by modeling with math.

#### 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 5 Assessment (Source: WTPS Assessment Pack in Google Folder) Summative Assessment
- \*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: Assessment Book or online resources) 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

- Totaling / toodestricity of ottagent work / the matrix / toodestricity			
	Teaching and Learning Activities		
Activities en en	nVision 2.0 lessons 5.1-5.8 nVision 2.0 lessons 6.1-6.7 nVision 2.0 lessons 7.1-7.5 nVision 2.0 lessons 8.1-8.9 esson 6.3 - Supplement Activity (Located in the Google Drive Folder)		

## - Reteaching Activities in Student Book

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

#### Resources

enVision 2.0 Resources

Differentiation Strategies

- 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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Grade Level & Content:	Grade 3 Mathematics		
Unit Plan Title:	<ul><li>Unit 3: Addition &amp; Subtraction within 1,000, Multiplication with Multiples of Ten,</li><li>Using the Four Operations to Solve Problems, and Understanding Fractions</li></ul>		
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
- Numbers and Operations in Base Ten
- Numbers and Operations Fractions
- Measurement and Data
- Geometry

#### **Unit Summary**

In this unit, students will develop fluency with addition and subtraction within 1,000. They will also explore place-value patterns when multiplying by a multiple of 10. Additionally, students will learn how to solve two-step word problems with whole numbers. Finally, students will build a foundational understanding of fractions as numbers and points on a number line.

#### Standard Number(s)

- 3.OA.D.8: Solve problems involving the four operations, and identify and explain patterns in arithmetic. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- 3.NBT.A.2: Use place value understanding and properties of operations to perform multi-digit arithmetic. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
- 3.NBT.A.3: Use place value understanding and properties of operations to perform multi-digit arithmetic. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
- 3.NF.A.1: Develop an understanding of fractions as numbers. Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.
- 3.NF.A.2a: Develop an understanding of fractions as numbers. Understand a fraction as a number on the number line; represent fractions on a number line diagram. Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.
- 3.NF.A.2b: Develop an understanding of fractions as numbers. Understand a fraction as a number on the number line; represent fractions on a number line diagram. Represent a fraction *a/b* on a number line diagram by marking off a lengths 1/*b* from 0. Recognize that the resulting interval has size *a/b* and that its endpoint locates the number *a/b* on the number line.
- 3.NF.A.3c: Develop an understanding of fractions as numbers. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.

- 3.MD.B.4: Represent and interpret data. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
- 3.G.A.2: Reason with shapes and their attributes. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.
- 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
  - o CRP4. Demonstrate creativity and innovation.
  - o CRP5. Utilize critical thinking to make sense of problems and persevere in solving them.
  - o CRP9. Work productively in teams while using cultural/global competence.
- Career Readiness, Life Literacies, and Key Skills
  - o 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
  - o 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.
- WIDA
  - o ELD Standard 1: The Language of Social and Instructional Language
  - o ELD Standard 3: The Language of Mathematics
- Computer Science and Design Thinking
  - o 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: What are standard procedures for adding and subtracting whole numbers?
- Topic 10: What are ways to multiply by multiples of 10?
- Topic 11: What are ways to solve two-step problems?
- Topic 12: What are different interpretations of a fraction?

# **Enduring Understandings**

## Topic 9:

- The expanded algorithm for adding 3-digit numbers breaks the addition problem into a series of easier problems based on place value. Answers to the simpler problems are then used to find the final sum.
- The standard algorithm for adding 3-digit numbers is an extension to the standard algorithm for adding 2-digit numbers.
- The addition of three or more numbers is an extension of adding two numbers.

- The expanded algorithm for subtracting multi-digit numbers breaks the larger subtraction problem into a series of easier problems based on place value. Answer to the simpler problems are then used to find the final difference.
- The standard algorithm for subtracting 3-digit numbers is an extension to the standard algorithm for subtracting 2-digit numbers.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.

## Topic 10:

- An open number line can be used to find products when one factor is a multiple of 10.
- Basic multiplication facts and properties of multiplication can be used to find products when one factor is a multiple of 10.
- Different strategies can be used to find product when one factor is a multiple of 10.
- Good math thinkers look for relationships in math to help solve problems.

#### Topic 11:

- Bar diagrams show relationships in a two-step word problem and help identify the operation or operations needed to solve the problem.
- The way quantities in a two-step problem are related determines the operations used to solve the problem. Equations show these relationships.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.

#### Topic 12:

- A unit fraction represents one part of a while that has been divided into equal parts. A fraction can represent multiple copies of a unit fraction.
- The whole can be found given a fractional part.
- Points on a number line can represent fractions. The denominator represents the number of equal parts between 0 and 1, and the numerator represents the number of parts between 0 and the point.
- A number line can be used to represent fractions greater than 1.
- A line plot is a way to organize data on a number line.
- Good math thinkers make sense of problems and think of ways to solve them. If they get stuck, they don't give up.

#### **Interdisciplinary Connections**

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

- Language Arts (RI.3.1, RI.3.4, W.3.2)
  - Problem solving reading mats and activities (Source: Problem-Solving Reading Activity Guide)
  - Topic journal activities (Source: Teacher Manual)
- Science (3-5-ETS1-1, 3-ESS2-1, 3-LS4-1, 3-LS4-2, 3-LS4-4)
  - Math and science projects (Source: Teacher Manual)
  - Math and science activities (Source: Teacher's Resource Masters)

In this unit plan, the following 21 <sup>st</sup> Century themes and skills are addressed.				
Check all that apply. 21 <sup>st</sup> Century Themes		Check all that apply. 21 <sup>st</sup> 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
  - o Add two 3-digit numbers by breaking apart problems into simpler problems
  - o Add two 3-digit numbers using the standard algorithm
  - o Add three or more numbers using the standard algorithm
  - o Subtract multi-digit numbers using the expanded algorithm
  - o Subtract a 3-digit number from another 3-digit number with one or more zeros by using the standard algorithm
  - o Use addition and subtraction to justify a conjecture
- Topic 10
  - o Use an open number line to find products when one factor is a multiple of 10
  - o Use properties of multiplication to find products when one factor is a multiple of 10
  - o Use different strategies to find products when one factor is a multiple of 10.
  - o Use the structure of multiplication and place value to find products wen one factor is a multiple of 10.
- Topic 11
  - o Draw diagrams and write equations to solve two-step problems involving addition and subtraction of whole numbers.
  - o Examine relationships between quantities in a two-step word problem by writing equations.
  - o Choose and apply the operations needed to find the answer.
  - o Critique the reasoning of others by asking questions, identifying mistakes, and providing suggestions for improvement.
- Topic 12
  - o Understand how to read and write unit fractions for equal size parts of a region.
  - o Use a fraction to represent multiple copies of a unit fraction.
  - o Determine and draw the whole (unit) given one part (unit fraction).
  - o Represent fractions on a number line.
  - o Represent fractions greater than 1 on a number line.
  - o Measure length to the nearest fourth inch and show the data on a line plot.
  - o Measure length to the nearest half inch and show the data on a line plot.
  - o Determine when a problem has either extra or missing information.

#### 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 9 Assessment (Source: WTPS Assessment Pack in Google Folder) Summative Assessment
- \*Topic 10 Assessment (Source: WTPS Assessment Pack in Google Folder) Summative Assessment
- \*Topic 11 Assessment (Source: WTPS Assessment Pack in Google Folder) Summative Assessment
- \*Topic 12 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 1-12 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			
Activities	enVision 2.0 lessons 9.1-9.8 enVision 2.0 lessons 10.1-10.4 enVision 2.0 lessons 11.1-11.4 enVision 2.0 lessons 12.1-12.8		
Differentiation Strategies	- Reteaching Activities in Student Book - Leveled Center Games - Online Resources (today's challenge, accessible student edition of the text, games, another look activities and videos, reteaching activities) - Short Challenge Activities - Long Challenge Activities - Math Diagnosis and Intervention System - ELL Toolkit & ELL Activities within the Teacher Manual - Problem-Solving Reading Mats and Teacher Guide - Differentiation Strategies for Special Education Students - Differentiation Strategies for Gifted and Talented Students - Differentiation Strategies for ELL Students - Differentiation Strategies for At Risk Students - Differentiation Strategies for Students with a 504		

#### Resources

- enVision 2.0 Resources
  - Student Book
  - Teacher Manual
  - o Teacher Resource Guide
  - Assessment Book
  - Pearsonrealize.com (online platform)
    - Math Games
    - Digital Text
    - Math Videos
    - Virtual Manipulatives
    - Math Diagnosis and Intervention System
  - o Problem-Solving Reading Mats & Teacher Guide
  - Center Games
  - ELL Toolkit & ELL Activities within the Teacher Manual
  - Standards Practice Workbook and Teacher Manual
  - ExamView
- Math Manipulatives
- WTPS Assessment Pack (Located in Google Drive Folder)
- Short Challenge Activities (Located in Google Drive Folder)
- Long Challenge Activities (Located in Google Drive Folder)

Grade Level & Content:	Grade 3 Mathematics	
Unit Plan Title:	<ul><li>Unit 4: Fraction Equivalence &amp; Comparison, Problems with Time, Capacity, &amp;</li><li>Mass, Attributes of Two-Dimensional Shapes, and Solve Perimeter Problems</li></ul>	
Time Frame:	9 weeks (please see pacing calendar)	
Anchor Standards/Domain* *i.e: ELA: reading, writing i.e.: Math: Number and Operations in Base 10		

#### Math:

- Numbers in Base Ten Fractions
- Measurement & Data
- Geometry

#### **Unit Summary**

In this unit, students will use models and number sense to understand fraction equivalence and comparison. Students will also extend their understanding of time and develop understanding of liquid volume (capacity) and mass. Students will focus on the attributes of two-dimensional shapes, especially quadrilaterals. Students learn that shapes in different categories may share attributes that place them in a larger category. Finally, students will learn to recognize perimeter as an attribute of polygons, finding perimeter using addition and multiplication, and finding an unknown side length. Students distinguish the attribute of perimeter from the attribute of area by analyzing rectangles with the same perimeter and different areas or with the same area and different perimeters.

## Standard Number(s)

- 3.NF.A.3a: Develop an understanding of fractions as numbers. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
- 3.NF.A.3b: Develop an understanding of fractions as numbers. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
- 3.NF.A.3c: Develop an understanding of fractions as numbers. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.
- 3.NF.A.3d: Develop an understanding of fractions as numbers. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.</p>
- 3.MD.A.1: Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
- 3.MD.A.2: Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

- 3.MD.C.5b: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Recognize area as an attribute of plane figures and understand concepts of area measurement. A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.
- 3.MD.C.7b: Geometric measurement: understand concepts of area and relate area to multiplication and addition. Relate area to the operations of multiplication and addition. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- 3.MD.D.8: Geometric measurement: recognize perimeter as an attribute of plane figures and
  distinguish between linear and area measures. Solve real world and mathematical problems
  involving perimeters of polygons, including finding the perimeter given the side lengths, finding an
  unknown side length, and exhibiting rectangles with the same perimeter and different areas or with
  the same area and different perimeters.
- 3.G.A.1: Reason with shapes and their attributes. Understand that shapes in different categories
  (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that
  the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses,
  rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that
  do not belong to any of these subcategories.
- 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
  - o CRP4. Demonstrate creativity and innovation.
  - o CRP5. Utilize critical thinking to make sense of problems and persevere in solving them.
  - o CRP9. Work productively in teams while using cultural/global competence.
- · Career Readiness, Life Literacies, and Key Skills
  - o 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
  - o ELD Standard 1: The Language of Social and Instructional Language
  - o ELD Standard 3: The Language of Mathematics
- Computer Science and Design Thinking
  - o 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: What are different ways to compare fractions?
- Topic 14: How can time, capacity, and mass be measured and found.
- Topic 15: How can two-dimensional shapes be described, analyzed, and classified?
- Topic 16: How can perimeter be measured and found?

# **Enduring Understandings**

#### Topic 13:

- The same fractional amount can be represented by an infinite set of different but equivalent fractions.
- There are a limitless number of fraction names for each point on a number line. These points can be used to name equivalent fractions.
- If two fractions have the same denominator, the fraction with the greater numerator is the greater fraction.
- If two fractions have the same numerator, the fraction with the greater denominator is less than the other fraction.
- Benchmark numbers such as 0, ½, and 1 can be used to compare fractions.
- You can use a number line to compare fractions.
- Whole numbers can be represented by many different fraction names.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.

#### Topic 14:

- Clocks can be used to tell time to the nearest minute.
- Elapsed time can be found by finding the total amount of time that passes between a starting time an ending time.
- Time intervals can be added or subtracted to solve problems.
- Benchmarks can be used to estimate capacity (liquid volume).
- Capacity (liquid volume) is a measure of the amount of liquid a container can hold.
- Mass is a measure of the quantity of matter in an object.
- Problems involving mass and volume can often be solved with a picture or a diagram.
- Good math thinkers know how to think about words and numbers to solve problems.

#### Topic 15:

- Quadrilaterals can be described and classified by their sides and angles.
- Shapes and quadrilaterals can be classified by their attributes.
- Good math thinkers are careful about what they write and say, so their ideas about math are clear.

#### Topic 16:

- The distance around a figure is its perimeter.
- To find the perimeter of a polygon, add the lengths of the sides.
- Polygons with the same perimeter may have different areas.
- Polygons with the same area may have different perimeters.
- Good math thinkers know how to think about words and numbers to solve problems.

# **Interdisciplinary Connections**

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

- Language Arts (RI.3.1, RI.3.4, W.3.2)
  - Problem solving reading mats and activities (Source: Problem-Solving Reading Activity Guide)
  - Topic journal activities (Source: Teacher Manual)
- Science (3-LS1-1, 3-LS4-3, 3-PS2-1, 3-PS2-3)
  - o Math and science projects (Source: Teacher Manual)
  - Math and science activities (Source: Teacher's Resource Masters)

In this unit plan, the following 21 <sup>st</sup> Century themes and skills are addressed.				
	Check all that apply. 21 <sup>st</sup> Century Themes			Check all that apply. 21st Century Skills
	Global Awareness			Creativity and Innovation
	Environmental Literacy		Х	Critical Thinking and Problem Solving
	Health Literacy		Х	Communication
	Civic Literacy		Х	Collaboration
	Financial, Economic, Business, and Entrepreneurial Literacy	'		

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

# Topic 13

- o Find equivalent fractions that name the same part of the whole.
- o Represent equivalent fractions on a number line.
- o Use models such as fraction strips to compare fractions that refer to the same whole and have the same numerator or the same denominator.
- o Use benchmark numbers to compare fractions.
- o Use a number line to compare fractions.
- o Use fraction names to represent whole numbers.
- o Construct math arguments using fractions.

#### Topic 14

- o Show and tell time to the nearest minute using analog and digital clocks.
- o Tell and write time to the nearest minute and measure time intervals in minutes.
- o Solve word problems involving addition and subtraction to measure quantities of time.
- o Use standard units to estimate liquid volume.
- o Use standard units to estimate the masses of solid objects.
- o Use a pan balance with metric weights to measure the mass of objects in grams and kilograms.
- o Use pictures to help solve problems about mass and volume.
- o Make sense of quantities and relationships in problems.

#### Topic 15

- o Identify quadrilaterals and use attributes to describe them.
- o Classify shapes according to their attributes.
- o Analyze and compare quadrilaterals and group them by their attributes.
- o Solve math problems precisely, efficiently, and accurately by using appropriate tools and mathematics vocabulary.

## Topic 16

- o Find the perimeter of different polygons.
- o Find the perimeter of different polygons with common shapes.
- o Use the given sides of a polygon and the known perimeter to find the unknown side length.
- o Understand the relationship of shapes with the same perimeter and different areas.
- o Understand the relationship of shapes with the same area and different perimeters.
- o Understand the relationship between numbers in order to simplify and solve problems involving perimeter.

#### 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 13 Assessment (Source: WTPS Assessment Pack in Google Folder) Summative Assessment
- \*Topic 14 Assessment (Source: WTPS Assessment Pack in Google Folder) Summative Assessment
- \*Topic 15 Assessment (Source: WTPS Assessment Pack in Google Folder) Summative Assessment
- \*Topic 16 Assessment (Source: WTPS Assessment Pack in Google Folder) 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: Assessment Book) Summative Assessment
- \*End of Year Test (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					
Activities	enVision 2.0 lessons 13.1-13.8 enVision 2.0 lessons 14.1-14.9 enVision 2.0 lessons 15.1-15.4 enVision 2.0 lessons 16.1-16.6				
Differentiation Strategies	<ul> <li>Reteaching Activities in Student Book</li> <li>Leveled Center Games</li> <li>Online Resources (today's challenge, accessible student edition of the text, games, another look activities and videos, reteaching activities)</li> <li>Short Challenge Activities</li> <li>Long Challenge Activities</li> <li>Math Diagnosis and Intervention System</li> <li>ELL Toolkit &amp; ELL Activities within the Teacher Manual</li> <li>Problem-Solving Reading Mats and Teacher Guide</li> <li>Differentiation Strategies for Special Education Students</li> <li>Differentiation Strategies for ELL Students</li> <li>Differentiation Strategies for At Risk Students</li> </ul>				
	- <u>Differentiation Strategies for Students with a 504</u>				

#### Resources

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  - Pearsonrealize.com (online platform)
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    - Math Videos
    - Virtual Manipulatives
    - Math Diagnosis and Intervention System
  - Problem-Solving Reading Mats & Teacher Guide
  - Center Games

- ELL Toolkit & ELL Activities within the Teacher Manual
- Standards Practice Workbook and Teacher Manual
- ExamView
- Math Manipulatives
- WTPS Assessment Pack (Located in Google Drive Folder)
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