### Suggested Blocks of Instruction:
9 days / September

### Topic: Topic 1- Numeration

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<tr>
<th>Objectives/CPI’s/Standards</th>
<th>Essential Questions</th>
<th>Essential Questions/Enduring Understandings</th>
<th>Materials/Assessment</th>
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<tbody>
<tr>
<td>Compute fluently with multi-digit numbers and find common factors and multiples.</td>
<td>Essential Questions</td>
<td>Enduring Understandings</td>
<td>Materials: enVision Math</td>
</tr>
<tr>
<td>6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.</td>
<td>• What are whole number and decimal place values?</td>
<td>• Our number system is based on groups of ten. Whenever we get 10 in one place value, we move to the next greater place value.</td>
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</tr>
<tr>
<td>6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.</td>
<td>• How can whole numbers and decimals be written, compared, and ordered?</td>
<td>• Decimal place values are just an extension of whole number place values to numbers less than one.</td>
<td>1.1 Place Value</td>
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<tr>
<td></td>
<td></td>
<td>• Numbers can be used to tell how many.</td>
<td>1.2 Comparing and Ordering Whole Numbers</td>
</tr>
<tr>
<td></td>
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<td>• Place values can be represented using exponents.</td>
<td>1.3 Exponents and Place Value</td>
</tr>
<tr>
<td></td>
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<td>• Place value can be used to compare and order numbers.</td>
<td>1.4 Decimal Place Value</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The value of an equation containing unknowns can be true or false depending on the replacement values of the unknowns.</td>
<td>1.5 Multiplying and Dividing by 10, 100, and 1,000</td>
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<tr>
<td></td>
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<td>• Patterns can be used to determine the locations of the decimal point in the product when multiplying a decimal by 10, 100, or 1000.</td>
<td>1.6 Comparing and Ordering Decimals</td>
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<td>1.7 Make an Organized List</td>
</tr>
</tbody>
</table>

### Web Site Resources:
www.pearsonsuccessnet.com

### Assessments:

**Formative**
- Topic Readiness Test
- Teacher Observation
- Daily Quick check Masters

**Summative**
- Topic Tests
- Performance Tasks
<table>
<thead>
<tr>
<th><strong>Ordered Blocks of Instruction:</strong></th>
<th><strong>Suggested Blocks of Instruction:</strong></th>
<th><strong>Topic:</strong> Topic 2-Variables, Expressions, and Properties</th>
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<tbody>
<tr>
<td>10 days / September / October</td>
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**Objectives/CPI's/Standards**

- Apply and extend previous understandings of arithmetic to algebraic expressions.
- Reason about and solve one-variable equations and inequalities.

**Essential Questions/Enduring Understandings**

**Essential Questions**
- What are algebraic expressions and how can they be written and evaluated?
- What arithmetic number relationships, called properties, are always true?

**Enduring Understandings**
- Some mathematical phrases can be represented using a variable in an algebraic expression.
- The value of an algebraic expression can be found by replacing the variable(s) with given number(s) and doing the calculation that results.
- You can add (or multiply) two numbers in any order. Three numbers can be grouped and added (or multiplied) in any order.
- There is an agreed upon order in which operations are carried out in a numerical expression.
- The Distributive Property of Multiplication over Addition lets you multiply a sum by multiplying each addend separately and then finding the sum of the products.
- There is more than one way to do a mental calculation. Mental calculation techniques change numbers so the calculation is easy to do mentally. Properties of operations make some calculations easy to do mentally.
- Some quantities have a mathematical relationship; the value of one quantity can be found if you know the value of the other quantity. Patterns can sometimes be used to identify a relationship between two quantities.
- Some problems can be solved by recording and organizing data in a table and by finding and using numerical patterns in the table.

**Materials/Assessment**

**Materials:** enVision Math

- 2.1 Using Variables to Write Expressions
- 2.2 Properties of Operations
- 2.3 Order of Operations
- 2.4 The Distributive Property
- 2.5 Mental Math
- 2.6 Evaluating Expressions
- 2.7 Using Expressions to Describe Patterns
- 2.8 Make a Table

**Web Site Resources:**
[www.pearsonsuccessnet.com](http://www.pearsonsuccessnet.com)

**Assessments:**

**Formative**
- Topic Readiness Test
- Teacher Observation
- Daily Quick Check Masters

**Summative**
- Topic Tests
- Performance Tasks
### Suggested Blocks of Instruction: 12 days /October

### Topic: Topic 3-Operations with Decimals

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<thead>
<tr>
<th>Objectives/CPI's/Standards</th>
<th>Essential Questions/Enduring Understandings</th>
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</thead>
<tbody>
<tr>
<td>Compute fluently with multi-digit numbers and find common factors and multiples. 6.NS.2 Fluently divide multi-digit numbers using the standard algorithm. 6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. 6.EE.2.c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order. 6.EE.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</td>
<td>Essential Questions</td>
<td>Materials: enVision Math 3.1 Estimating Sums and Differences 3.2 Adding and Subtracting 3.3 Estimating Products and Quotients 3.4 Multiplying Decimals 3.5 Dividing Whole Numbers 3.6 Dividing by a Whole Number 3.7 Dividing Decimals 3.8 Evaluating Expressions 3.9 Solutions for Equations and Inequalities 3.10 Multiple-Step Problems</td>
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<tr>
<td></td>
<td>ENDURING UNDERSTANDINGS</td>
<td>Web Site Resources: <a href="http://www.pearsonsuccessnet.com">www.pearsonsuccessnet.com</a></td>
</tr>
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<td></td>
<td>- Rounding is a process for finding the multiple of 10, 100, etc. or of 0.1, 0.01, etc. closest to a given number. - Standard addition and subtraction algorithms break calculations into simpler calculations using place value. - The standard multiplication algorithm involving decimals is an extension of the standard algorithm for multiplying whole numbers. - The sharing interpretation of division can be used to model the standard division algorithm. - The standard division algorithm involving decimals is an extension of the standard algorithm for dividing whole numbers. - There is an agreed upon order for which operations in a numerical expression are performed. - The value of an equation containing unknowns can be true or false depending on the replacement values of the unknowns. - Variables are used to represent numbers in mathematical expressions, equations, or inequalities. - A number divided by a decimal can be represented as an equivalent calculation using place value to change the divisor to a whole number.</td>
<td>Web Site Resources: <a href="http://www.pearsonsuccessnet.com">www.pearsonsuccessnet.com</a></td>
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<td>- How are sums, differences, products, and quotients involving decimals estimated and found?</td>
<td>Assessments:</td>
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<td>- Topic Readiness Test</td>
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<td>Suggested Blocks of Instruction:</td>
<td>Topic: Topic 4-Solving Equations</td>
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<th>Objectives/CPI's/Standards</th>
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<th>Materials/Assessment</th>
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</table>
| Apply and extend previous understandings of arithmetic to algebraic expressions. | Essential Questions  
  - What procedures can be used to solve equations?  
  
Enduring Understandings  
- The same number can be added or subtracted from both sides of an equation and not change the equality. Multiplying or dividing both sides of an equation by the same nonzero number does not change the equality.  
- Solving an equation involves finding the value of the unknown that makes the equation true. There is more than one way to solve an equation.  
- Information in a problem can often be shown using a picture and used to understand and solve the problem. Some problems can be solved by writing and completing a number sentence or equation. | Materials: enVision Math  
4.1 Properties of Equality  
4.2 Solving Addition and Subtraction Equations  
4.3 Draw a Picture and Write an Equation  
4.4 Solving Multiplication and Division Equations  
4.5 Draw a Picture and Write and Equation |

Web Site Resources:  
www.pearsonsuccessnet.com

Assessments:  
Formative  
- Topic Readiness Test  
- Teacher Observation  
- Daily Quick Check Masters  

Summative  
- Topic Tests  
- Performance Tasks
### Suggested Blocks of Instruction: 9 days

**Topic:** Topic 5-Number and Fraction Concepts

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<th>Essential Questions/Enduring Understandings</th>
<th>Materials/Assessment</th>
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</table>
| **Compute fluently with multi-digit numbers and find common factors and multiples.** | **Essential Questions**  
- How can numbers be broken apart into factors?  
- How can fractions be represented and simplified?  

**Enduring Understandings**  
- Every counting number can be divided by 1 and itself.  
- Every positive integer (except the number 1) can be represented as a product of one or more prime numbers in exactly one way disregarding the order of the factors.  
- There is always a greatest number that divides evenly each of two whole numbers.  
- A fraction describes the division of a whole into equal parts.  
- The same fractional amount can be represented by an infinite set of different but equivalent fractions.  
- A fraction can be expressed in its simplest form by dividing the numerator and denominator by common factors, including the greatest common factor, until there are no common factors other than 1.  
- Some real-world quantities have a mathematical relationship; the value of one quantity can be found if you know the value of the other quantity.  
- Commonalities in attributes of objects or situations can be found and used to make generalizations about relationships. | **Materials:** enVision Math  
5.1 Factors, Multiples, and Divisibility  
5.2 Prime Factorization  
5.3 Greatest Common Factor  
5.4 Understanding Fractions  
5.5 Equivalent Fractions  
5.6 Fractions in Simplest Form  
5.7 Make and Test Conjectures  

**Web Site Resources:**  
[www.pearsonsuccessnet.com](http://www.pearsonsuccessnet.com)**Assessments:**  
**Formative**  
- Topic Readiness Test  
- Teacher Observation  
- Daily Quick Check Masters  

**Summative**  
- Topic Tests  
- Performance Tasks
### Topic: Topic 6-Decimals, Fractions, and Mixed Numbers

#### Objectives/CPI’s/Standards

Compute fluently with multi-digit numbers and find common factors and multiples.

6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

#### Essential Questions/Enduring Understandings

**Essential Questions**
- How are decimals and fractions related?

**Enduring Understandings**
- A fraction describes the division of a whole into equal parts, and it can be interpreted in more than one way depending on the whole to be divided.
- A decimal is another name for a fraction.
- Mixed numbers can also be represented using decimals.
- Fractional amounts greater than 1 can be represented in different ways. Whole number amounts can be represented as fractions. When the numerator and denominator are equal, the fraction is equal to 1.
- Information in a problem can often be shown by drawing a picture or a diagram that can be used to understand and solve the problem.

#### Materials/Assessment

**Materials:** enVision Math
- 6.1 Fractions and Division
- 6.2 Fractions and Decimals
- 6.3 Improper Fractions and Mixed Numbers
- 6.4 Decimal Forms of Fractions and Mixed Numbers
- 6.5 Draw a Picture

**Website Resources:**
[www.pearsonsuccessnet.com](http://www.pearsonsuccessnet.com)

**Assessments:**

**Formative**
- Topic Readiness Test
- Teacher Observation
- Daily Quick Check Masters

**Summative**
- Topic Tests
- Performance Tasks
### Suggested Blocks of Instruction: 9 days

### Topic: Topic 7-Adding and Subtracting Fractions and Mixed Numbers

#### Objectives/CPI’s/Standards

**Compute fluently with multi-digit numbers and find common factors and multiples.**

6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor.

6.RP.1 Understand the concept of a ratio and use ration language to describe a ratio relationship between two quantities…

#### Essential Questions/Enduring Understandings

**Essential Questions**
- What are the standard procedures for estimating and finding sums and differences of fractions and mixed numbers?

**Enduring Understandings**
- Adding or subtracting fractions with like denominators is similar to adding or subtracting whole numbers.
- To add or subtract with unlike denominators, change to an equivalent calculation with like denominators.
- One way to add or subtract mixed numbers is to add or subtract the fractional parts and then the whole number parts.
- All nonzero whole numbers have common multiples, including at least one.
- Sums and differences of mixed numbers can be estimated by rounding each mixed number to the nearest whole number.
- Equations can be transformed into equivalent equations and solved using properties of equality and inverse relationships.
- Recording information in a table can help you understand and solve some problems.

#### Materials/Assessment

**Materials:** enVision Math
- 7.1 Adding and Subtracting: Like Denominators
- 7.2 Least Common Multiple
- 7.3 Adding and Subtracting: Unlike Denominators
- 7.4 Estimating Sums and Differences of Mixed Numbers
- 7.5 Adding Mixed Numbers
- 7.6 Subtracting Mixed Numbers
- 7.7 Make a Table

**Web Site Resources:**
www.pearsonsuccessnet.com

**Assessments:**

**Formative**
- Topic Readiness Test
- Teacher Observation
- Daily Quick Check Masters

**Summative**
- Topic Tests
- Performance Tasks
### Suggested Blocks of Instruction:
7 days

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<tr>
<th>Objectives/CPI's/Standards</th>
<th>Essential Questions/Enduring Understandings</th>
<th>Materials/Assessment</th>
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</thead>
</table>
| **These lessons reinforce concepts and skills required for Topic 9.** | **Essential Questions**<br>• What are standard procedures for estimating and finding products of fractions and mixed numbers?  
**Enduring Understandings**<br>• The product of a fraction, \( \frac{x}{y} \) and a whole number can be interpreted as dividing the whole into \( y \) parts and then taking \( x \) of those parts.<br>• Products involving fractions can be interpreted as finding the area of a rectangle.<br>• Rounding and compatible numbers can be used to estimate the product of fractions or mixed numbers.<br>• The product of a fraction and a whole number can be found by dividing the whole number by the denominator and then multiplying by the numerator.<br>• The product of two fractions can be found by writing the product of the numerators over the product of the denominators.<br>• The product of two mixed numbers can be found by first changing the mixed numbers to improper fractions, and then multiplying the improper fractions.<br>• Some problems can be solved by first finding and solving a sub-problem(s) and then using that answer(s) to solve the original problem. | **Materials**: enVision Math  
8.1 Multiplying a Fraction and a Whole Number  
8.2 Estimating Products  
8.3 Multiplying Fractions  
8.4 Multiplying Mixed Numbers  
8.5 Multiple-Step Problems  
**Web Site Resources**: www.pearsonsuccessnet.com  
**Assessments**:  
**Formative**<br>• Topic Readiness Test  
• Teacher Observation  
• Daily Quick Check Masters  
**Summative**<br>• Topic Tests  
• Performance Tasks |
### Topic: Topic 9- Dividing Fractions and Mixed Numbers

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<tr>
<td><strong>Objectives/CPT’s/ Standards</strong></td>
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<tr>
<td>Apply and extend previous understandings of multiplication and division to divide fractions by fractions.</td>
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<tr>
<td><strong>Essential Questions/Enduring Understandings</strong></td>
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<tr>
<td><strong>Essential Questions</strong></td>
</tr>
<tr>
<td>• What are standard procedures from estimating and finding quotients of fractions and mixed numbers?</td>
</tr>
<tr>
<td><strong>Enduring Understandings</strong></td>
</tr>
<tr>
<td>• Rounding and compatible numbers can be used to estimate the quotient of mixed numbers.</td>
</tr>
<tr>
<td>• When dividing by a fraction that is less than 1, the quotient is greater than the dividend.</td>
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<tr>
<td>• A division expression with a fraction divisor can be changed to an equivalent multiplication expression.</td>
</tr>
<tr>
<td>• The quotient of two mixed numbers can be found by changing the mixed numbers to improper fractions, then changing the division expression to an equivalent multiplication expression.</td>
</tr>
<tr>
<td>• Equations with fractions and mixed numbers can be solved using properties of equality and inverse operations.</td>
</tr>
<tr>
<td>• Some problems can be solved by identifying elements that repeat in a predictable way.</td>
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<tr>
<td><strong>Materials/Assessment</strong></td>
</tr>
<tr>
<td><strong>Materials:</strong> enVision Math</td>
</tr>
<tr>
<td>9.1 Understanding Division of Fractions</td>
</tr>
<tr>
<td>9.2 Dividing a Whole Number by a Fraction</td>
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<tr>
<td>9.3 Dividing Fractions</td>
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<tr>
<td>9.4 Estimating Quotients</td>
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<tr>
<td>9.5 Dividing Mixed Numbers</td>
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<tr>
<td>9.6 Solving Equations</td>
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<tr>
<td>9.7 Look for a Pattern</td>
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**Web Site Resources:**
www.pearsonsuccessnet.com

**Assessments:**

**Formative**
- Teacher Observation
- Daily Quick Check Masters

**Summative**
- Topic Tests
- Performance Tasks
## Suggested Blocks of Instruction:
8 days

### Topic: Topic 10-Integers

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<th>Essential Questions/Enduring Understandings</th>
<th>Materials/Assessment</th>
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<tbody>
<tr>
<td>Apply and extend previous understandings of numbers to the system of rational numbers.</td>
<td>Essential Questions</td>
<td></td>
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</tbody>
</table>
| 6.NS.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values... | • How are integers related to whole numbers?  
• How can integers be added, subtracted, multiplied, and divided?  
**Enduring Understandings** |
| 6.NS.6.c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. | • Numbers that are the same distance from 0 on the number line are opposites. Integers are the counting numbers, their opposites, and zero.  
• Numbers to the right of 0 are positive and numbers to the left of 0 are negative. A number to the right of another on the number is the greater number.  
• Each rational number can be associated with a unique point on the number line.  
• Absolute value is used to define the distance from a number to zero, regardless of whether the number is positive or negative.  
• The Cartesian Coordinate System is a scheme that uses two perpendicular number lines intersecting at zero to tell the location of points in the plane.  
• Some problems can be solved by reasoning about the conditions in the problem. | Materials: enVision Math  
10.1 Understanding Integers  
10.2 Comparing and Ordering Integers  
10.3 Rational Numbers on a Number Line  
10.8 Absolute Value  
10.9 Graphing Points on a Coordinate Plane  
10.10 Use Reasoning |
| Web Site Resources: www.pearsonsuccessnet.com | Assessments:  
**Formative**  
• Topic Readiness Test  
• Teacher Observation  
• Daily Quick Check Masters |
| | **Summative**  
• Topic Tests  
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<th>Suggested Blocks of Instruction: 7 days</th>
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</thead>
</table>

### Objectives/CPI's/Standards

Lessons in this topic reinforce concepts and skills required for Topic 17.

6.EE.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another...

### Essential Questions/Enduring Understandings

#### Essential Questions
- How can angles be measured, drawn, and classified?
- What are special shapes and how can they be described and compared?

#### Enduring Understandings
- Point, line, line segment, ray, and plane are the core attributes of space objects. Lines can be classified by their relationship to other lines.
- An angle is formed by two intersecting lines or by two different rays with a common endpoint. Angles can be classified by their size.
- Polygons can be described and classified by their sides and angles. The angles of a triangle can form a straight line so the sum of the measures of the angles is 180 degrees.
- Polygons can be described and classified by their sides and angles. A quadrilateral can be broken into two triangles. So the sum of the measures of the angles of a quadrilateral is 360 degrees.
- Some problems can be solved by recording and organizing data in a table and by finding and using numerical patterns in the table.

### Materials/Assessment

#### Materials:
- enVision Math
  - 11.1 Basic Geometric Ideas
  - 11.2 Measuring and Drawing Angles
  - 11.4 Triangles
  - 11.5 Quadrilaterals
  - 11.9 Make a Table and Look for a Pattern

#### Web Site Resources:
- [www.pearsonsuccessnet.com](http://www.pearsonsuccessnet.com)

#### Assessments:

**Formative**
- Topic Readiness Test
- Teacher Observation
- Daily Quick Check Masters

**Summative**
- Topic Tests
- Performance Tasks
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<th>Suggested Blocks of Instruction: 8 days</th>
<th>Topic: Topic 12-Ratios, Rates, and Proportions</th>
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<tbody>
<tr>
<td><strong>Objectives/CPI’s/Standards</strong></td>
<td><strong>Essential Questions/Enduring Understandings</strong></td>
</tr>
<tr>
<td>Understand ratio concepts and use ratio reasoning to solve problems.</td>
<td>Essential Questions</td>
</tr>
<tr>
<td>6.RP.1 Understanding the concept of a ratio and use ratio language to describe a ratio relationship between two quantities...</td>
<td>• What are ratios and rates and how are they used in solving problems?</td>
</tr>
<tr>
<td>6.RP.2 Understand the concept of a unit rate ( \frac{a}{b} ) associated with a ratio ( a:b ) with ( b \neq 0 ), and use rate language in the context of a ratio relationship...</td>
<td>Enduring Understandings</td>
</tr>
<tr>
<td>6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</td>
<td>• A ratio is a special relationship between two quantities where for every ( x ) units of one quantity there are ( y ) units of another quantity. The quantities being compared in a ratio are called terms.</td>
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<tr>
<td>6.RP.3.b Solve unit rate problems including those involving unit pricing and constant speed...</td>
<td>• In a proportional relationship there are an infinite number of ratios equal to the lowest terms or constant ratio. Equal ratios can be found by multiplying both terms by the same non-zero number.</td>
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<tr>
<td>6.EE.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation...</td>
<td>• A rate is a special ratio that compares two quantities with different units of measure. A unit rate is a rate that compares a quantity to one unit of another quantity.</td>
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<tr>
<td>6.EE.9</td>
<td>• A formula is a common relationship between quantities expressed as a n equation. A special proportional relationship involves distance (d), rate (r), and time (t). The formula showing this relationship is ( d = r \times t ).</td>
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<td>• Rates are easily compared when each is expressed as a unit rate.</td>
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<td>• Information in a problem can often be shown using a picture to understand and solve the problem.</td>
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<td>Materials: enVision Math</td>
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<tr>
<td></td>
<td>12.1 Understanding Ratios</td>
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<td>12.2 Equal Ratios and Proportions</td>
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<td>12.3 Understanding Rates and Unit Rates</td>
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<td>12.4 Comparing Rates</td>
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<td>12.5 Distance, Rate, and Time</td>
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<td>12.6 Draw a Picture</td>
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<td>• Performance Tasks</td>
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<tr>
<td>Suggested Blocks of Instruction: 7 days</td>
<td>Topic: Topic 13-Solving Proportions</td>
</tr>
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<td>----------------------------------------</td>
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<tr>
<td><strong>Objectives/CPI’s/Standards</strong></td>
<td><strong>Essential Questions/Enduring Understandings</strong></td>
</tr>
<tr>
<td>Understand ratio concepts and use ratio reasoning to solve problems.</td>
<td>Essential Questions</td>
</tr>
<tr>
<td>6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</td>
<td>• What procedures can be used to solve proportions?</td>
</tr>
<tr>
<td>6.RP.3a Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.</td>
<td>Enduring Understandings</td>
</tr>
<tr>
<td>6.RP.3b Solve unit rate problems including those involving unit pricing and constant speed...</td>
<td>• Some procedures problems can be solved by generating equal ratios using multiplication or division. Some proportions can be solved by finding and using the common factor that relates the terms.</td>
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<td>• Some proportions can be solved by finding and using the unit amount.</td>
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<td>• Tape diagrams and double number line diagrams can show ratio relationships and be used to reason about solutions to problems.</td>
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<td>• Equivalent ratios can be represented in a table, and the pairs of values can be plotted on the coordinate plane.</td>
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<td>• Mathematical explanations can be given using words, pictures, numbers, or symbols. A good explanation should be correct, simple, complete, and easy to understand.</td>
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<tr>
<td><strong>Suggested Blocks of Instruction:</strong> 9 days</td>
<td><strong>Topic:</strong> Topic 14- Understanding Percent</td>
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<tr>
<td><strong>Objectives/CPI's/Standards</strong></td>
<td><strong>Essential Questions/Enduring Understandings</strong></td>
</tr>
<tr>
<td>Understand ratio concepts and use ratio reasoning to solve problems.</td>
<td><strong>Essential Questions</strong></td>
</tr>
<tr>
<td>6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</td>
<td>- What is the meaning of percent?</td>
</tr>
<tr>
<td>6.RP.3.c Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.</td>
<td>- How can percent be estimated and found?</td>
</tr>
<tr>
<td>Enduring Understandings</td>
<td><strong>Enduring Understandings</strong></td>
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<tr>
<td></td>
<td>- A percent is a special kind of ratio in which a part is compared to a whole with 100 parts. The whole is 100%. Percent is relative to the size of the whole.</td>
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<td>- Finding a percent of a whole is like finding a fractional part of a whole. You can find the percent of a number by changing the percent to a decimal and multiplying or using a proportion.</td>
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<td>- The whole can be found when you are given a percent and a part. A number line and a proportion can be used to help solve for the missing whole.</td>
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<td>- A part of a whole or a part of a set can be represented by a fraction, a decimal, and a percent.</td>
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<td>- Some percents can be approximated by simple fractions and used to estimate the percent of a number.</td>
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<td>- Answers to problems should always be checked for reasonableness, and this can be done in different ways.</td>
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<td>Formative</td>
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<tr>
<td></td>
<td>- Topic Readiness Test</td>
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<td>- Teacher Observation</td>
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</tbody>
</table>
# GTPS Curriculum – 6th Grade Math

## Suggested Blocks of Instruction:
6 days

<table>
<thead>
<tr>
<th>Objectives/CPI's/Standards</th>
<th>Essential Questions/Enduring Understandings</th>
<th>Materials/Assessment</th>
</tr>
</thead>
</table>
| Reason about and solve one-variable equations and inequalities. | Essential Questions  
- How can equations be graphed?  
- What patterns can be found in the graphs of equations?  
Enduring Understandings  
- A solution to an inequality is a value that makes the inequality true.  
- Patterns can sometimes help identify the relationship between quantities, and an equation can be written describing the relationship.  
- Graphs of relationships in the form $y = ax$ and $y = x + a$ ($a$ is a real number) are straight lines. The graph of $y = ax$ passes through the origin. The graph of $y = x + a$ does not pass through the origin, unless $a$ equals zero.  
- Some problems can be solved by using objects to act out the actions in the problems. Some problems can be solved by reasoning about the conditions in the problems. | Materials: enVision Math  
15.2 Patterns and Equations  
15.4 Graphing Equations  
15.6 Understanding Inequalities  
15.7 Act It Out and Use Reasoning |

## Web Site Resources:
[www.pearsonsuccessnet.com](http://www.pearsonsuccessnet.com)

## Assessments:
### Formative
- Topic Readiness Test  
- Teacher Observation  
- Daily Quick Check Masters

### Summative
- Topic Tests  
- Performance Tasks
# GTPS Curriculum – 6th Grade Math

## Suggested Blocks of Instruction:
8 days

<table>
<thead>
<tr>
<th>Topic: Topic 16 - Measurement</th>
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</thead>
<tbody>
<tr>
<td><strong>Objectives/CPI’s/Standards</strong></td>
</tr>
</tbody>
</table>

**Understand ratio concepts and use ratio reasoning to solve problems.**

6.RP.3.d Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

**Essential Questions/Enduring Understandings**

**Essential Questions**
- How can customary and metric measurements be converted to other units?
- How are customary and Metric units related?

**Enduring Understandings**
- Measurements can be represented in equivalent ways using different units.
- Relationships exist that enable you to convert between units by multiplying or dividing.
- The smaller the units on the scale of a measuring instrument, the more precise the measurement is.
- Time can be expressed using different units that are related to each other.
- The time between the start and end of an event is called elapsed time and can be calculated.
- Some problems can be solved by reasoning about conditions in the problem.

**Materials/Assessment**

**Materials:** enVision Math
- 16.1 Converting Customary Measures
- 16.2 Converting Metric Measures
- 16.3 Units of Measure and Precision
- 16.4 Relating Customary and Metric Measures
- 16.5 Elapsed Time
- 16.6 Use Reasoning

**Web Site Resources:**
www.pearsonsuccessnet.com

**Assessments:**

**Formative**
- Topic Readiness Test
- Teacher Observation
- Daily Quick Check Masters

**Summative**
- Topic Tests
- Performance Tasks
### Suggested Blocks of Instruction:
6 days

### Topic: Topic 17-Perimeter and Area

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<th>Essential Questions/Enduring Understandings</th>
<th>Materials/Assessment</th>
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</thead>
<tbody>
<tr>
<td>Solve real-world and mathematical problems involving area, surface area, and volume.</td>
<td><strong>Essential Questions</strong></td>
<td><strong>Materials</strong>: enVision Math</td>
</tr>
<tr>
<td>6.EE.2.c Evaluate expressions at specific values of their variables. Include expressions</td>
<td>• What are the meanings of perimeter and area?</td>
<td>17.1 Perimeter</td>
</tr>
<tr>
<td>that arise from formulas used in real-world problems. Perform arithmetic operations,</td>
<td>• How can the perimeter and area of certain shapes be found?</td>
<td>17.2 Area of Rectangles and Irregular Figures</td>
</tr>
<tr>
<td>including those involving whole-number exponents, in the conventional order when there</td>
<td><strong>Enduring Understandings</strong></td>
<td>17.3 Area of Parallelograms and Triangles</td>
</tr>
<tr>
<td>are no parentheses to specify a particular order (Order of Operations).</td>
<td>• The distance around a figure is its perimeter. Formulas exist for finding the perimeter of some polygons</td>
<td>17.6 Use Objects</td>
</tr>
<tr>
<td>6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles,</td>
<td>• The measure of a region inside a shape is its area, and area can be found using square units. The area of</td>
<td></td>
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<tr>
<td>and use the nets to find the surface area of these figures. Apply these techniques in the</td>
<td>some irregular shapes can be found by decomposing the shape into polygons for which formulas exist for finding</td>
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<tr>
<td>context of solving real-world and mathematical problems.</td>
<td>area.</td>
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<td></td>
<td>• The formula for area of a parallelogram is derived from the formula for area of a rectangle. The formula</td>
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<td>for area of a triangle is derived from the formula for area of a parallelogram.</td>
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<tr>
<td></td>
<td>• Some problems can be solved by using objects to act out the actions in the problem.</td>
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### Assessments:
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- Daily Quick Check Masters

**Summative**
- Topic Tests
- Performance Tasks
### Suggested Blocks of Instruction:
7 days

<table>
<thead>
<tr>
<th>Objectives/CPI’s/Standards</th>
<th>Topic: Topic 18- Volume and Surface Area</th>
<th>Essential Questions/Enduring Understandings</th>
<th>Materials/Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solve real-world and mathematical problems involving area, surface area, and volume.</strong></td>
<td><strong>Essential Questions</strong>&lt;br&gt;• What is the meaning of volume and how can volume be found?&lt;br&gt;• What is the meaning of surface area and how can surface area be found?&lt;br&gt;• How can the volume of certain figures be found?&lt;br&gt;<strong>Enduring Understandings</strong>&lt;br&gt;• A polyhedron is a three-dimensional figure made of flat surfaces. The shapes of these flat surfaces and the way they are connected at edges and vertices determine the characteristics of the polyhedron.&lt;br&gt;• Formulas for find the area of polygons can be used to find the surface area of some solids.&lt;br&gt;• Volume is a measure of the amount of space inside a solid figure. Volume can be measured by counting the number of cubic units needed to fill a three-dimensional object.&lt;br&gt;• The volume of rectangular prisms with fractional edge lengths can be determined in the same way as volume of rectangular prisms with whole-number edge lengths.&lt;br&gt;• Some problems can be solved by using objects to act out the actions in the problem. Some problems can be solved by reasoning about the conditions in the problems.</td>
<td><strong>Materials:</strong> enVision Math&lt;br&gt;18.1 Solid Figures&lt;br&gt;18.2 Surface Area&lt;br&gt;18.3 Volume of Rectangular Prisms&lt;br&gt;18.4 Volume with Fractional Edge Lengths&lt;br&gt;18.5 Use Objects and Reasoning</td>
<td><strong>Web Site Resources:</strong>&lt;br&gt;www.pearsonsuccessnet.com</td>
</tr>
<tr>
<td><strong>6.G.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas (V = lwh) and (V = bh) to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.</strong></td>
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<tr>
<td><strong>6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.</strong></td>
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**Assessments:**
**Formative**
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**Summative**
• Topic Tests<br>• Performance Tasks
## Suggested Blocks of Instruction: 12 days

### Topic: Topic 19- Data and Graphs

<table>
<thead>
<tr>
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<th>Materials/Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarize and describe distributions</td>
<td>Essential Questions</td>
<td>Materials: enVision Math</td>
</tr>
<tr>
<td>6.SP.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers...</td>
<td>How can graphs be used to represent data and answer questions?</td>
<td>19.1 Statistical Questions</td>
</tr>
<tr>
<td>6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.</td>
<td>Statistical questions anticipate variability in the data.</td>
<td>19.2 Looking at Data Sets</td>
</tr>
<tr>
<td>6.SP.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.</td>
<td>Each type of graph is most appropriate for certain kinds of data.</td>
<td>19.3 Mean</td>
</tr>
<tr>
<td>6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.</td>
<td>Box plots are useful for plotting data above a number line.</td>
<td>19.4 Median, Mode, and Range</td>
</tr>
<tr>
<td>6.SP.5.a Summarize numerical data sets in relation to their context, such as by reporting the number of observations.</td>
<td>A set of data collected to answer a statistical question has a distribution, which can be described by its center, spread, and overall shape.</td>
<td>19.5 Frequency Tables and Histograms</td>
</tr>
<tr>
<td>6.SP.5.c Summarize numerical data sets in relation to their context, such as by giving quantitative measures of center... and variability...</td>
<td>Different measures can be used to describe the center of a numerical data set.</td>
<td>19.6 Box Plots</td>
</tr>
<tr>
<td>6.SP.5.d Summarize numerical data sets in relation to their context, such as by relating the choice of measures of center and variability to the shape of the data distribution...</td>
<td>A measure of variability describes how the values in a data set vary using a single number.</td>
<td>19.7 Measures of Variability</td>
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<td>The best descriptor of the center of numerical data is determined by the nature of the data and the question to be answered.</td>
<td>19.8 Appropriate Use of Statistical Measures</td>
</tr>
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<td></td>
<td>A set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and over shape.</td>
<td>19.9 Summarizing Data Distributions</td>
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<td>Some problems can be solved by using reasoning first to arrive at what the answer might be.</td>
<td>19.10 Try, Check, and Revise</td>
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</tbody>
</table>

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