# Math Curriculum Mapping 

Grade: Six
Subject: Math

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| :---: | :---: | :---: | :---: | :---: | :---: |
| Month | Content | Skills | Vocabulary | Assessments | Standards |
|  |  |  |  |  |  |
| September | Whole Numbers ~ Chapter 1 | - Compare and order whole numbers using place value or a number line. (1-1) <br> - Estimate with whole numbers. (1-2) | -Compatible number -Underestimate -Overestimate | - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups <br> - Unit 1-A Quiz (Comparing \& ordering whole numbers, estimating, \& Exponents <br> - Problem Solving WS <br> - Chapter test (Unit 1-A concepts \& order of operations, properties, converting words to mathematical expressions) | 6 N. 2 (Analyze) <br> 6 N. 3 (Evaluation) |
| September | Exponents ~ Chapter 1 | - Write numbers using exponents. (1-3) | - exponent <br> - base <br> - exponential form | - AM Diagnostic Test | 6.A.1.2. Students are able to write algebraic expressions involving addition or multiplication using whole numbers. (Application) |
| September | $\begin{aligned} & \text { Order of Operations } \sim \text { Chapter } \\ & 1 \end{aligned}$ | - Evaluate numerical expressions containing more than one operation. (1-4) | - numerical expression - evaluate - order of operations |  | 6.A.1.1. Students are able to use order of operations, excluding nested parentheses and exponents, to simplify whole number expressions. (Evaluation) |
| September | Number Properties ~ Chapter 1 | - Use number properties to compute mentally. (1-5) <br> - Identify the commutative, associative \& distributive property when given a number sentence. (1-5) | - commutative property - associative property - distributive property |  | (Application) <br> (Comprehension) |

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| September | Problem Solving ~ Chapter 1 | - Choose best operation (add or subtract) (1-6) <br> - Convert words to mathematical expressions. (1-6) <br> - Identify too much or too little information. (1-6) |  |  | 6.A.1.2. Students are able to write algebraic expressions involving addition or multiplication using whole numbers. (Application) |
| October | Variables \& Expressions ~ Algebra Chapter 2 | - Define variable, constant, and algebraic expression. (2-1) <br> - Identify and evaluate expressions. (2-1) <br> - Translate between words \& math. (2-2) | -Variable <br> -Constant <br> -Algebraic expression | - Hands-On Algebra manipulatives <br> - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups <br> - Quiz 2-A (Solving for variables, evaluating expressions, translating words into math expressions) | (Knowledge) <br> 6.A.4.1. Students are able to use concrete materials, graphs and algebraic statements to represent problem situations. <br> (Comprehension) |
| October | Equations ~ Chapter 2 | - Determine whether a number is a solution of an equation. (2-3) <br> - Solve whole- number addition equations. (2-4) <br> - Solve whole- number subtraction equations. (2-5) <br> - Solve whole-number multiplication equations. (2-6) <br> - Solve whole-number division equations. (2-7) | -Equation -solution | - Quiz 2-B (Solving addition and subtraction equations) <br> - Quiz 2-C (Solving multiplication and division equations with whole numbers) <br> - Ch. 2 Test <br> - AM Diagnostic Test <br> - AM Practice | 6.A. 2 (Analysis) <br> 6.A.2.1. Students are able to write and solve one-step 1st degree equations, with one variable, involving inverse operations using the set of whole numbers. (Application) |

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| Month | Content | Skills | Vocabulary | Assessments | Standards |
| October | Understanding Decimals ~ Chapter 3 | - Write, compare, and order decimals using place value and number lines. (3-1) |  | - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups | 6.N. 1 (Analysis) Introduced, not mastered. |
| October | Adding and Subtracting Decimals ~ Chapter 3 | - Add and subtract decimals. (3-3) |  | - Quiz 3A (Comparing, ordering decimals, adding \& subtracting decimals) | 6.N.2.1. Students are able to add, subtract, multiply, and divide decimals. (Comprehension) |
| November | Decimals and Metric Measurement ~ Chapter 3 | - Multiply and divide decimals by powers of ten and convert metric measurements. (3-4) | -Scientific notation | - Quiz 3-B (Metric measurements \& scientific notation) | 6.M.1.1. Students are able to select, use, and convert appropriate unit of measurement for a situation. (Comprehension) |
| November | Multiplying and dividing decimals ~ Chapter 3 | - Write large numbers in scientific notation. (3-5) <br> - Multiply decimals by whole numbers and by decimals. (3-6) <br> - Divide decimals by whole numbers. (3-7) <br> - Divide whole numbers and decimals by decimals. (3-8) <br> - Solve problems by interpreting the quotient. (3-9) |  | - Quiz 3-C (Multiplying and dividing with decimals and interpreting quotients; solve equations with inverse operations) | 6.N.2.1. Students are able to add, subtract, multiply, and divide decimals. (Comprehension) <br> (Comprehension) <br> (Comprehension) <br> (Application) |
| November | Decimal Equations ~ Chapter 3 | - Solve subtraction, multiplication, and division equations involving decimals using the inverse operations addition, division, and multiplication, respectively. (3-10) |  | - Ch. 3 Test <br> - AM Diagnostic Test <br> - AM Practice | 6.A.2.1. Students are able to write and solve one-step 1st degree equations, with one variable, involving inverse operations using the set of whole numbers. (Application) |

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| December | Number Theory ~ Chapter 4 | - Use divisibility rules to determine if a number is divisible by $2,3,4,5,6,9$, and 10. (4-1) <br> - Write prime factorizations of composite numbers. (4-2) <br> - Find the greatest common factor (GCF) of a set of numbers. (4-3) | -Divisible <br> -Composite <br> Number <br> -Prime Number <br> -Factor <br> -Prime <br> Factorization <br> -Greatest Common <br> Factor (GCF) | - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups <br> - Quiz 4-A (Divisibility, Prime \& composite numbers, and GCF) | 6.N.1.2. Students are able to find factors and multiples of whole numbers. (Application) <br> (Application) <br> (Application) |
| December | Understanding Fractions ~ Chapter 4 | - Convert between decimals and fractions. (4-4) <br> - Write equivalent fractions and mixed numbers. (4-5) <br> - Use pictures and number line to compare and order fractions. (4-6) <br> - Convert between mixed numbers and improper fractions. (4-7) | -mixed number -terminating decimal -repeating decimal -equivalent fractions -simplest form -like fractions -unlike fractions -common denominator -improper fraction -proper fraction | - Quiz 4-B (Decimal and fraction equivalents, equivalent fractions, compare \& order fractions, and improper fractions) | 6.N.1.1. Students are able to represent fractions in equivalent forms and convert between fractions, decimals, and percents using halves, fourths, tenths, hundredths. (Application) |
| January | Fraction Operations ~ Chapter 4 | - Add and subtract fractions with like denominators. (4-8) <br> - Multiply fractions by whole numbers. (4-9) |  | - Quiz 4-C (Add \& subtract like fractions) <br> - Ch. 4 Test <br> - AM Diagnostic Test <br> - AM Practice | 6.N.2.1. Students are able to add, subtract, multiply, and divide decimals. (Comprehension) (Introduced, not mastered) |
| January | Multiplying and Dividing Fractions ~ Chapter 5 | - Multiply fractions. (5-1) <br> - Multiply mixed numbers. (5-2) <br> - Divide fractions and mixed numbers. (5-3) <br> - Solve equations by multiplying and dividing fractions. (5-4) | -reciprocal | - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups | 6.N.2.1 (Comprehension) (Introduced, not mastered) <br> (Introduced, not mastered) <br> (Introduced, not mastered) |

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| Month | Content | Skills | Vocabulary | Assessments | Standards |
| January | Problem Solving ~Chapter 5 | - Choose the operation, multiplication or division to solve the problem. (pg. 231) |  | - Quiz 5-B (Multiply \& divide fractions and mixed numbers; solve fraction equations) | 6.N.3.1. Students are able to use various strategies to solve oneand two-step problems involving positive decimals. (Application) |
| January | Adding and Subtracting Fractions ~ Chapter 5 (do after 4-8) Lessons 5-7 through 5-10. | - Find the least common multiple (LCM) of a group of numbers. (5-5) <br> - Add and subtract fractions with unlike denominators. (5-7) <br> - Add and subtract mixed numbers with unlike denominators. (5-8) <br> - Rename mixed numbers to subtract. (5-9) <br> - Solve equations by adding and subtracting fractions. (5-10) | -least common multiple <br> - least common denominator | - Quiz 5-A (LCM, add \& subtract fractions; renaming, \& add and subtract mixed numbers) <br> - Ch. 5 Test <br> - AM Diagnostic Test <br> - AM Practice | 6.N.3.1. Students are able to use various strategies to solve oneand two-step problems involving positive decimals. (Comprehension) <br> 6.N.2.1. Students are able to add, subtract, multiply, and divide decimals. (Comprehension) (Introduced, not mastered) <br> (Application) |
| March | Organizing Data ~ Chapter 6 | - Use tables to record and organize data. (6-1) <br> - Find the range, mean, median, and mode of a data set. (6-2) | -mean <br> -median <br> -mode <br> -range | - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups | 6.S.1 (Application) <br> 6.S.1.1. Students are able to find the mean, mode, and range of an ordered set of positive data. |
| March | Problem Solving ~ Chapter 6 | - Make a plan to solve the problem by prioritizing and sequencing the information in the problem. (pg 283) |  | - Quiz 6-A (Tables, mean, median, mode, \& range) |  |
| March | Displaying and Interpreting Data ~ Chapter 6 | - Display and analyze data in a bar graph. (6-4) <br> - Record and organize data in frequency tables and histograms. (6-5) <br> - Graph ordered pairs on a coordinate grid. (6-6) | -bar graph -double bar graph -frequency table -cumulative frequency -histogram -coordinate grid -ordered pair -line graph | - Quiz 6-B (Frequency tables, bar graphs, line graphs, ordered pairs on a coordinate grid, stem \& leaf plots) <br> - Ch. 6 Test | 6.S.1 (Analyze) <br> 6.S.1.2. Students are able to display data using bar and line graphs and draw conclusions from data displayed in a graph. (Synthesis) (Introduced) |

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| Month | Content | Skills | Vocabulary | Assessments | Standards |
|  |  | - Display and analyze data in line graphs. (6-7) <br> - Make and analyze stem-and-leaf plots. (6-9) | -double line graph -stem \& leaf plot | - AM Test and/or Practice | 6.A.3.1. Students are able to identify and graph ordered pairs in Quadrant I on a coordinate plane. (Knowledge) 6.S.1 (Analysis) <br> 6.S.1.2. Students are able to display data using bar and line graphs and draw conclusions from data displayed in a graph. (Analysis) (Introduced) |
| February | Line and Angles ~ Chapter 7 | - Describe figures by using the terms of geometry. (7-1) <br> - Measure, classify, estimate, and draw angles. (7-2) <br> - Describe relationships of angles as vertical, adjacent, complementary, and supplementary angles. (7-3) <br> - Classify the different types of lines. (7-4) | -point <br> -line <br> -plane <br> -line segment <br> -ray <br> -angle <br> -vertex <br> -acute angle <br> -right angle <br> -obtuse angle <br> -straight angle <br> -congruent <br> -vertical angle <br> -adjacent angle <br> -complementary <br> angle <br> -supplementary <br> angle <br> -parallel lines <br> -perpendicular lines <br> -skew lines | - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups <br> - Quiz 7-A (Points, lines, planes, angles, classifying lines, \& angle relationships) | 6.G.2.1. Students are able to use basic shapes to demonstrate geometric concepts. <br> (Application) <br> 6.G.1.2. Students are able to identify and describe angles. (Application) (Introduced, mot mastered) <br> 6.G. 1 (Comprehension) |
| February | Polygons ~ Chapter 7 | - Classify triangles and solve problems involving angle and side measures of triangles. (7-5) <br> - Identify, classify, and compare quadrilaterals. | -acute triangle -obtuse triangle -right triangle -scalene triangle -isosceles triangle -equilateral triangle -quadrilateral -parallelogram -rectangle -rhombus | - Quiz 7-B (Classifying triangles, quadrilaterals, \& polygons) | 6.G.1.1. Students are able to identify and describe the characteristics of triangles and quadrilaterals. (Comprehension) <br> (Comprehension) <br> (Comprehension) |

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|  |  | (7-6) <br> - Identify regular and not regular polygons and find the angle measures of regular polygons. (7-7) <br> - Recognize, describe, and extend geometric patterns. (7-8) | -square <br> -trapezoid <br> -polygon <br> -regular polygon |  | 6.G.2.1. Students are able to use basic shapes to demonstrate geometric concepts. (Application) |
| February/March | Polygon Relationships ~ Chapter 7 | - Identify congruent figures and use congruence to solve problems. (7-9) <br> - Use translations, reflections, and rotations to transform geometric shapes. (7-10) <br> - Demonstrate line symmetry. (7-11) | -transformation <br> -translation <br> -rotation <br> -reflection <br> -line of reflection <br> -line symmetry <br> -line of symmetry | - Quiz 7-C (Identify congruency, transformations, \& line symmetry) <br> - Ch. 7 Test <br> - AM Test and/or Practice | 6.G.2.1. Students are able to use basic shapes to demonstrate geometric concepts. (Comprehension) <br> (Application) <br> (Application) <br> (Comprehension) |
| March | Ratios and Proportions ~ Chapter 8 | - Write ratios and rates and find unit rates. (8-1) <br> - Write and solve proportions. (8-2) <br> - Use proportions to make conversions within the customary measurement systems (8-3) <br> - Use ratios to identify similar figures. (8-4) <br> - Use proportions and similar figures to find unknown measures. (8-5) <br> - Read and use map scales and scale drawings. (8-6) | -ratio <br> -equivalent <br> ratio <br> -rate <br> -unit rate <br> -proportion <br> -similar <br> -corresponding sides <br> -corresponding angles <br> -indirect <br> measurement <br> -scale drawing <br> -scale | - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups <br> - Quiz 8-A (Ratios, rates, proportions) | 6.A.3.2. Students are able to solve one-step problems involving ratios and rates. (Application) |

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| March | Problem Solving ~ Chapter 8 | - Make a plan to solve the problem by deciding if an estimate or an exact answer is needed. Pg 417 |  |  | 6.N.3.1. Students are able to use various strategies to solve oneand two-step problems involving positive decimals. (Application) |
| March | Percents $\sim$ Chapter 8 | - Write percents as decimals and as fractions. (8-7) <br> - Write decimals and fractions as percents. (8-8) <br> - Find the missing value in a percent problem. (8-9) <br> - Solve percent problems that involve discounts, tips, and sales tax. (8-9) <br> - Find simple interest. Extension pg 436 | -percent <br> -discount <br> -tip <br> -sales tax <br> -interest <br> -principal <br> -simple interest | - Quiz 8-B (Percents, equivalencies with decimals \& fractions; using percents for tax and discounts) <br> - Ch. 8 Test <br> - AM Test and /or Practice | 6.N.1.1. Students are able to represent fractions in equivalent forms and convert between fractions, decimals, and percents using halves, fourths, tenths, hundredths. (Application) |
| April | Perimeter, Area, and Volume ~ Chapter 10 | - Find the perimeter and missing side length of a polygon. (10-1) <br> - Find the area of rectangles, triangles, and parallelograms. (10-2) <br> - Break a polygon into simpler parts to find its area. (10-3) <br> - Explore how area and perimeter are affected by changes in the dimensions. (10-4) | -perimeter -area | - Daily Assignments (worksheets, book work, Am Exercises, etc.) <br> - In class questions \& warm ups <br> - Quiz 10-A (Finding perimeter and area of squares, rectangles, triangles, \& parallelograms) | 6.M.1.2. Students are able to find the perimeter and area of squares and rectangles (whole number measurements). (Comprehension) |
| April | Circles ~ Chapter 10 | - Identify parts of a circle and find the circumference and area of a circle. (10-5) | -circle -center -radius (radii) -diameter -circumference -pi | - Quiz 10-B (Identify parts of a circle; finding circumference and area of a circle) <br> - Ch. 10 Test <br> - AM Test and/or |  |

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|  |  |  | -x coordinate <br> - y coordinate |  | plane. (Knowledge) |
| May | Problem Solving ~ Chapter 9 | - Rewrite or restate the problem to help you understand what the problem is about. Pg 463 |  |  |  |
| May | Integer Operations $\sim$ Chapter 9 | - Add, subtract, multiply, and divide integers. (9-4 to 9-7) <br> - Solve equations containing integers. (9-8) |  | - $\quad$ Ch 9 Test (Add, subtract, multiply \& divide integers) <br> - AM Test and/or Practice |  |

