O.A. Thorp Scholastic Academy - Student Individualized Learning Path

Student Name: «FIRST_NAME» «LAST_NAME» **Grade: «GRADE»** **HR: «HMRM»** **Current Math RIT:«M_1213_Rdg_Fall»**	**Math Grades 2 – 5** **NWEA Strand Goals: Operations and Algebraic Thinking, Number and Operations in Base Ten, Number & Operations: Fractions, Measurement and Data, Geometry**

Below 221 - Operations and Algebraic Thinking

- ☐ Demonstrates an understanding of the inverse relationship between addition and subtraction
- ☐ Uses algebraic reasoning to solve problems involving equality relationships
- ☐ Solves open sentences with calculations on both sides of the sentence
- ☐ Uses number sense strategies to solve problems (multiplication/division)
- ☐ Models whole number multiplication and division algorithms (e.g., uses physical materials to show 4 groups of 3 objects)
- ☐ Solves problems using the inverse relationship between multiplication and division
- ☐ Solves whole number word problems with division over 10 x 10
- ☐ Solves complex word problems involving whole number division with remainder (e.g., 2-step, 2-digit divisor)
- ☐ Uses simple linear equations to represent problem situations
- ☐ Solves simple open sentences with missing factors (numbers over 100)
- ☐ Solves 2-step open sentences with missing factors
- ☐ Looks for a growing pattern to solve a problem
- ☐ Solves real-world problems using reasoning strategies
- ☐ Determines factors of whole numbers
- ☐ Identifies numbers as prime
- ☐ Solves real-world problems involving 2-step multiple operations, whole numbers only
- ☐ Solves real-world multiple-step problems involving whole numbers
- ☐ Extends a repeating pattern of geometric shapes in a grid
- ☐ Extends a growing geometric pattern - using numbers
- ☐ Extends a pattern formed by two arithmetic growing patterns - odd and even terms (such as 1,5,4,8,7,...)
- ☐ Extends, or completes, growing patterns defined by equations or number facts
- ☐ Extends a growing pattern of numbers - explicit quadratic rule - recursive rule is to add x more each time (such as 1,2,4,7,...)
- ☐ Identifies rules and applies them to new patterns
- ☐ Applies algebraic methods to solve theoretical problems
- ☐ Vocabulary: proof
- ☐ Signs and Symbols: ? a variable, long division symbol, ? next in sequence, R remainder

Below 221 - Number and Operations in Base Ten

- ☐ Identifies whole numbers 100 - 999 using 2-D and 3-D models
- ☐ Identifies whole numbers over 999 using 2- and 3-D models
- ☐ Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred
- ☐ Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand
- ☐ Subtracts numbers with 5 digits or more with regrouping
- ☐ Instantly recalls basic multiplication and division facts in a table
- ☐ Multiplies a 3-digit number by a 2-digit number with regrouping
- ☐ Performs mental computation with multiplication

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☐ Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten thousand ☐ Writes whole numbers in standard and expanded form through the hundred thousands ☐ Represents a decimal to the hundredths place (e.g., three hundredths = 0.03) ☐ Rounds decimals to the nearest whole number ☐ Rounds decimals to the nearest tenth ☐ Writes a fraction or mixed number as a decimal when the denominator is a multiple of 10 ☐ Uses rounding to estimate answers to real-world problems involving multiplication and division of numbers less than 100 (whole numbers only) ☐ Uses rounding to estimate answers to real-world problems involving numbers less than 1000 with multiplication and division (whole numbers only) ☐ Uses rounding to estimate answers to difficult multiplication and division problems (whole numbers only) ☐ Multiplies a 3-digit number by a 3-digit number ☐ Multiplies a 4- or more digit number by multiples of 100 or 1000 ☐ Multiplies multiple-digit numbers	☐ Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder ☐ Divides a 4-digit number by a 1-digit number with no remainder ☐ Divides a 3-digit number by a 2-digit number ☐ Divides a 4-digit number by a 2-digit number ☐ Recognizes multiplication and division fact families ☐ Adds decimals to the hundredths place in horizontal format (not same number of digits) ☐ Adds decimals to the thousandths place horizontally with and without regrouping ☐ Adds decimals through the hundred-thousandths place ☐ Subtracts decimals to the thousandths place, vertically, with the zero missing in the ones place ☐ Subtracts decimals to the thousandths place, horizontally, with and without regrouping ☐ Multiplies a decimal by a decimal, vertical form (factors to tenths or hundredths) ☐ Multiplies a decimal by a decimal (factors to hundredths) ☐ Divides decimal by a whole number ☐ Vocabulary: none ☐ Signs and Symbols: none
Below 221 - Number & Operations: Fractions	
☐ Identifies a fractions in lowest terms from a region or set ☐ Identifies eighths, reduced to lowest terms, from a region or set ☐ Expresses "1" in many different ways (e.g., 3/3, 4/4)	☐ Adds simple mixed fractions with unlike denominators (e.g., halves, thirds, fourths, eighths) ☐ Subtracts simple fractions with unlike denominators without reducing (e.g., halves, quarters, thirds, eighths)

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☐ Determines simple equivalent fractions using multiples ☐ Converts fractions to lowest terms ☐ Writes mixed numbers as improper fractions and improper fractions as mixed numbers ☐ Compares fractions on a number line ☐ Compares fractions greater than or less than a given fraction using visual representations ☐ Compares fractions and mixed numbers ☐ Compares fractions and mixed numbers using symbols ☐ Explains different interpretations of fractions (e.g., parts of a whole, parts of a set, and division of whole numbers by whole numbers) ☐ Expresses a simple fraction as a decimal ☐ Solves problems involving equivalent fractions ☐ Adds fractions with like denominators without reducing ☐ Adds fractions with like denominators with reducing or converting to a mixed fraction	☐ Adds fractions with unlike denominators without reducing ☐ Subtracts fractions with unlike denominators without reducing ☐ Subtracts mixed fractions with like denominators with no regrouping ☐ Subtracts mixed fractions with unlike denominators with no regrouping ☐ Solves real-world problems involving addition and subtraction of fractions where converting one denominator is necessary ☐ Multiplies a fraction by a fraction where reducing to simplest form is necessary ☐ Multiplies a fraction by a whole number ☐ Solves 1-step real-world problems involving fractions with multiplication and division ☐ Vocabulary: lowest term, lowest terms, reduce, triple ☐ Signs and Symbols: > greater than, < less than, ≠ not equal to, % percent
Below 221 - Measurement and Data	
☐ Computes the value of multiple bills and coins (addition/subtraction only) ☐ Analyzes and computes 1 operation on real-world problems involving money over $5.00 (addition/subtraction only) ☐ Analyzes and computes 1 operation on real-world problems involving money over $5.00 (multiplication/division) ☐ Computes with dollars and cents over $5.00 and converts to decimals (multiplication/division) ☐ Computes addition and subtraction on multiple-step real-world problems involving money	☐ Converts between cups, pints, quarts, and gallons ☐ Selects and uses protractors for measuring angles ☐ Determines the perimeter of a figure using non-standard units ☐ Solves problems involving the perimeter of squares, rectangles, or triangles ☐ Finds the perimeter of a polygon using a formula ☐ Determines the process for calculating perimeter ☐ Determines the area of irregular shapes with partial square

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☐ Computes addition, subtraction, multiplication, and division on multiple-step, real-world problems involving money ☐ Solves 1-step problems involving proportions ☐ Knows the approximate size of a kilometer ☐ Measures length to the nearest quarter of an inch ☐ Converts between inches and feet ☐ Converts between inches, feet, and yards ☐ Solves simple problems involving measurement of length ☐ Apply dimensional analysis to simple real-world problems (length) ☐ Selects and uses the appropriate type and size of unit in metric system (mass) ☐ Solves simple problems involving measurement of weight ☐ Knows the approximate size of a gallon ☐ Apply dimensional analysis to simple real-world problems (capacity)	units ☐ Applies dimensional analysis to simple real-world problems (time) ☐ Solves difficult problems involving elapsed time, with the conversion of hours ☐ Solves simple problems involving miles per gallon ☐ Estimates and finds volume of a figure using cubic units ☐ Solves problems using pictographs ☐ Solves problems using bar graphs ☐ Predicts from pictographs and bar graphs ☐ Vocabulary: coin, how long, micrometer, protractor ☐ Signs and Symbols: $ dollar sign, ÷ division, fl oz fluid ounce, hr hour, kg kilogram, lb pound, measurement span down, measurement span left, measurement span right, measurement span up, x multiplication, P perimeter, - subtraction
Below 221 - Geometry	
☐ Identifies properties of angles ☐ Identifies and names a quadrilateral ☐ Identifies corners (vertices) of cubes ☐ Identifies and names a rectangular prism ☐ Predicts and verifies the effects of combining or subdividing basic shapes ☐ Compares simple plane figures to solid figures (e.g., circle/sphere, square/cube, rectangle/rectangular solid) ☐ Identifies rays ☐ Identifies perpendicular lines ☐ Identifies acute angles	☐ Identifies obtuse angles ☐ Classifies polygons by type of angle ☐ Classifies polygons by number of sides ☐ Classifies plane figures by the number of lines of symmetry ☐ Determines the distance between horizontal and vertical lines in the first quadrant of a rectangular coordinate system ☐ Locates the origin on a coordinate grid ☐ Vocabulary: acute angle, congruent angle, geometric solid, obtuse angle, straight angle, union ☐ Signs/Symbols: < angle, angle marker (arc), ° degrees

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