

CURRICULUM MAP

5th Grade Math

1 st Nine Weeks	2 nd Nine Weeks
<p><u>Number, Number Sense & Operations</u></p> <p>*1. Use models and visual representation to develop the concept of ratio as part-to-part and part-to-whole, and the concept of percent as part-to-whole. (Lesson 62 Measuring Up)</p> <p>*6. Represent and compare numbers less than 0 by extending the number line and using familiar applications; e.g., temperature, owing money. (Lesson 4-5 Measuring Up)</p> <p>11. Explain how place value is related to addition and subtraction of decimals; e.g., $0.2 + 0.14$; the two tenths is added to the one tenth because they are both tenths.</p> <p>4. Round decimals to a given place value.</p> <p>*8. Identify and use relationships between operations to solve problems.</p> <p>9. Use order of operations, including use of parentheses, to simplify numerical expressions.</p> <p>2. Use various forms of “one” to demonstrate the equivalence of fractions; e.g., $\frac{18}{24} = \frac{9}{12} \times \frac{2}{2} = \frac{3}{4} \times \frac{6}{6}$</p> <p>(NOTE: must also teach LCM and GCF).</p> <p>12. Use physical models, points of reference, and equivalent forms to add and subtract commonly used fractions with like and unlike denominators and decimals.</p> <p>10. Justify why fractions need common denominators to be added or subtracted.</p> <p>(NOTE: Review Multiplication & division facts)</p>	<p><u>Number, Number Sense & Operations</u></p> <p>3. Identify and generate equivalent forms of fractions, decimals and percents.</p> <p>4. Round fractions (including mixed numbers) to the nearest half.</p> <p>13. Estimate the results of computations involving whole numbers, fractions and decimals, using a variety of strategies.</p> <p><u>Patterns, Functions, & Algebra</u></p> <p>1. Justify a general rule for a pattern or a function by using physical materials, visual representations, words, tables or graphs.</p> <p>3. Use variables as unknown quantities in general rules when describing patterns and other relationships.</p> <p>4. Create & interpret the meaning of equations & equalities representing problem situations.</p> <p><u>Number, Number Sense & Operations</u></p> <p>7. Use commutative, associative, distributive, identity and inverse properties to simplify and perform computations.</p> <p><u>Data Analysis & Probability</u></p> <p>*1. Read, construct and interpret frequency tables, circle graphs and line graphs. (Measuring Up Lesson 59)</p> <p>3. Read and interpret increasingly complex displays of data, such as double bar graphs.</p> <p>*4. Determine appropriate data to be collected to answer questions posed by students or teacher, collect and display data, and clearly communicate findings. (Measuring Up Lesson 61)</p> <p>*5. Modify initial conclusions, propose and justify new interpretations and predictions as additional data are collected. (Great Graphing ODE Lesson)</p> <p>*2. Select and use a graph that is appropriate for the type of data to be displayed; e.g., numerical vs. categorical data, discrete vs. continuous data. (Measuring Up Lesson 61)</p> <p>6. Determine and use the range, mean, median and mode, and explain what each does and does not indicate about the set of data.</p> <p><u>Patterns, Functions, & Algebra</u></p> <p>*6. Describe how the quantitative change in a variable affects the value of a related variable; eg., describe how the rate of growth varies over time, based upon data in a table or graph. (Measuring Up Lesson 36 Ohio Coach Lesson 27)</p> <p>*5. Model problems with physical materials, visual representations & use graphs & tables to draw conclusions & make predictions. (Ohio Coach Lesson 30)</p>

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3rd Nine Weeks	4th Nine Weeks
<p><u>Data Analysis & Probability</u> 7. List and explain all possible outcomes in a given situation. 8. Identify the probability of events within a simple experiment, such as three chances out of eight. 9. Use 0, 1 and ratios between 0 and 1 to represent the probability of outcomes for an event, and associate the ratio with the likelihood of the outcome. 10. Compare what should happen (theoretical/expected results) with what did happen (experimental/actual results) in a simple experiment. 11. Make predictions based on experimental and theoretical probabilities.</p> <p><u>Geometry & Spatial Sense</u> *2. Use standard language to describe line, segment, ray, angle, skew, parallel, perpendicular. (Lesson 47 Measuring Up) *3. Label vertex, rays, interior and exterior for an angle. (Lesson 48 Measuring Up)</p> <p><u>Measurement</u> 1. Identify and select appropriate units to measure angles; i.e., degrees. *7. Use benchmark angles (e.g.; 45°, 90°, 120°) to estimate the measure of angles, and use a tool to measure and draw angles. (Lesson 17 Ohio coach Lesson 48 Measuring Up)</p> <p><u>Geometry & Spatial Sense</u> *7. Understand that the measure of an angle is determined by the degree of rotation of an angle side rather than the length of either side. (Degrees of Rotations ODE Lesson) 5. Use physical models to determine the sum of the interior angles of triangles and quadrilaterals. *4. Describe and use properties of congruent figures to solve problems. (Lesson 49 & 51 Measuring Up)</p> <p><u>Measurement</u> 6. Use strategies to develop formulas for determining perimeter and area of triangles, rectangles and parallelograms, and volume of rectangular prisms. *3. Demonstrate and describe the differences between covering the faces (surface area) and filling the interior (volume) of three-dimensional object. (Lesson 14 Ohio Coach Lesson 43 & 44 Measuring Up) 4. Demonstrate understanding of the differences among linear units, square units and cubic units.</p>	<p><u>Geometry & Spatial Sense</u> *1. Draw circles, and identify and determine relationships among the radius, diameter, center and circumference; e.g., radius is half the diameter, the ratio of the circumference of a circle to its diameter is an approximation of π. (Lesson 52 Measuring Up Properties of circles ODE Lesson) *8. Predict what three-dimensional object will result from folding a two-dimensional net, then confirm the prediction by folding the net. (Page 131 Buckle Down Lesson 24) *6. Extend understanding of coordinate system to include points whose x or y values may be negative numbers. (Plotting ordered pairs on a four quadrant grid ODE Lesson)</p> <p><u>Measurement</u> *2. Identify paths between points on a grid or coordinate plane and compare the lengths of the paths; e.g., shortest path, paths of equal length 5. Make conversions within the same measurement system while performing computation.</p> <p><u>Number, Number Sense & Operations</u> 5. Recognize and identify perfect squares and their roots. (Measuring Up Lesson 37)</p> <p><u>Patterns, Functions, & Algebra</u> 2. Use calculators or computers to develop patterns, and generalize them using tables and graphs</p>

*Indicators not covered or completely covered in textbook.

Revised 9/13/2011