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| **Benchmarks** | **Example Garden Lessons** | | |
| **Standard 1: Numbers and Operations: NUMBER SENSE: Understand numbers, ways of representing numbers, relationships among numbers, and number systems** | | | | |
| MA.4.1.1- Can identify place value from 10,000ths to millions | |  | | |
| MA.4.1.2- Addition and Subtraction of fractions and decimals | |  | | |
| MA.4.1.3 – Identify equivalent forms of fractions and decimals | |  | | |
| **Standard 2:**  **Numbers and Operations: OPERATION SENSE: Understand the meaning of operations and how they relate to each other** | | | | |
| MA.4.2.1 – Addition and Subtraction of fractions and decimals | |  | | |
| MA.4.2.2 – Students can take apart and reform number sentences using associative, communicative, and distributive properties with whole numbers | |  | | |
| MA.4.2.3 – Understand and apply the properties of 0 and 1 in +, -, x, and division | |  | | |
| **Standard 3: Numbers and Operations: COMPUTATION STRATEGIES: Use computational tools and strategies fluently and, when appropriate, use estimation** | | | | |
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| MA.4.3.1 – Recall multiplication facts through the 12s | |  | | |
| MA.4.3.2- Select strategies for computing whole numbers (4 operations) | |  | | |
| MA.4.3.3 - Add and subtract fractions with unlike denominators | |  | | |
| MA.4.3.4 – Add and subtract decimals to 3 places | |  | | |
| MA.4.3.5 – Student can provide a “reasonable solution” to a given problem | |  | | |
| **Standard 4:**  **Measurement: FLUENCY WITH MEASUREMENT: Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring** | | | | |
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| MA.4.4.1 – Explain the “need” for standard measurement | |  | | |
| MA.4.4.2 – Use metric tools to measure length, perimeter, and area with accuracy | |  | | |
| MA.4.4.3 - Student can classify right, acute,  obtuse, and straight angles | |  | | |
| MA.4.4.4 – Estimate and measure surface area and volume | |  | | |
| MA.4.4.5 – Use a formula to determine area and perimeter of a square and rectangle | |  | | |
| **Standard 5:**  **Geometry and Spatial Sense: PROPERTIES AND RELATIONSHIPS: Analyze properties of objects and relationships among the properties** | | | | |
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| MA.4.5.1 – Classify different types of triangles and quadrilaterals by properties | |  | |
| MA.4.5.2 – Describe and illustrate parallel, perpendicular, and intersecting lines | |  | |
| MA.4.5.3 - Compare points, lines, line segments and rays | |  | |
| MA.4.5.4 – Put together and take apart 2 and 3 dimensional shapes | |  | |
| **Standard 6:**  **Geometry and Spatial Sense: TRANSFORMATIONS AND SYMMETRY: Use transformations and symmetry to analyze mathematical situations** | | | |
| MA.4.6.1 – Use flips, slides, and turns to determine if 2 figures are congruent | |  | |
| MA.4.6.2 – Locate the plane of symmetry in a 3 dimensional object | |  | |
| **Standard 7:**  **Geometry and Spatial Sense: VISUAL AND SPATIAL SENSE: Use visualization and spatial reasoning to solve problems both within and outside of mathematics** | | | |
| MA.4.7.1 – Predict the 3 dimensional object that will result from folding a 2 dimensional net of the object. | |  | |
| **Standard 8: Geometry and Spatial Sense: REPRESENTATIONAL SYSTEMS: Select and use different representational systems, including coordinate geometry** | | | |
| MA.4.8.1 – Use ordered pairs to plot points on a grid | |  | |
| **Standard 9:**  **Patterns, Functions, and Algebra: PATTERNS AND FUNCTIONAL RELATIONSHIPS: Understand various types of patterns and functional relationships** | | | |
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| MA.4.9.1 – Extend, create, and generalize growing and shrinking numeric and geometric patterns | |  | | |
| MA.4.9.2 – Represent the relationship between quantities and explain your understanding | |  | | |
| **Standard 10:**  **Patterns, Functions, and Algebra: SYMBOLIC REPRESENTATION: Use symbolic forms to represent, model, and analyze mathematical situations** | | | | |
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| MA.4.10.1 – Use symbols to represent unknown quantities in open sentences | |  | | |
| MA.4.10.2 – Student shows understanding of the commutative, associative, and distributive properties symbolically | |  | | |
| MA.4.10.3 – Describe the “rate of change” numerically and verbally based on data recorded in a table or graph | |  | | |
| **Standard 11:**  **Data Analysis, Statistics, and Probability: FLUENCY WITH DATA: Pose questions and collect, organize, and represent data to answer those questions** | | | | |
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| MA.4.11.1 – Pose questions, collect data, use observations and experiments, and organize data into a table or graph | |  | | |
| MA.4.1.2 – Student can label the parts of a graph (axes, scale, legend, title) | |  | | |
| **Standard 12: Data Analysis, Statistics, and Probability: STATISTICS: Interpret data using methods of exploratory data analysis** | | | | |
| MA.4.12.1 – Compare data sets | |  | | |
| MA.4.12.2 – Analyze in detail the important features in the shape of the graph of a data set | |  | | |
| **Standard 13:**   **Data Analysis, Statistics, and Probability: DATA ANALYSIS: Develop and evaluate inferences, predictions, and arguments that are based on data** | | | | |
| MA.4.13.1 – Propose and justify conclusions or predictions based on data | |  | | |
| **Standard 14: Data Analysis, Statistics, and Probability: PROBABILITY: Understand and apply basic notions of chance and probability** | | | | |
| MA.4.14.1 – Make and justify reasonable predictions about the probability of outcomes of simple experiments | | |  |