

6th Grade MATH
Standards and Benchmarks
HCPS
1/10/13

Standard 1: Numbers and Operations: NUMBER SENSE: Understand numbers, ways of representing numbers, relationships among numbers, and number systems

Benchmark MA.6.1.1	Compare and order fractions, decimals, and percents
Example Garden Lessons	

Benchmark MA.6.1.2	Explain and give examples of number theory concepts (e.g., prime factorization, common factors, greatest common factor, common multiples, least common multiple, divisibility)
Example Garden Lessons	

Standard 2: Numbers and Operations: OPERATION SENSE: Understand the meaning of operations and how they relate to each other

Benchmark MA.6.2.1	Apply the order of operations when calculating with whole numbers
Example Garden Lessons	

Benchmark MA.6.2.2	Use the operation properties to simplify computations with fractions, decimals, and percents
---------------------------	--

Standard 3: Numbers and Operations: COMPUTATION STRATEGIES: Use computational tools and strategies fluently and, when appropriate, use estimation

Benchmark MA.6.3.1	Use estimation prior to computing with fractions and decimals and compare the estimation to the actual result
Example Garden Lessons	

Benchmark MA.6.3.2	Recognize situations in which it is more appropriate to estimate than to compute an exact answer
Example Garden Lessons	

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

Benchmark MA.6.4.1	Estimate the circumference and area of a circle (with no reference to a formula)
Example Garden Lessons	

Benchmark MA.6.4.2	Construct angles with a given degree measure
Example Garden Lessons	

Benchmark MA.6.4.3	Apply strategies and formulas to solve area and perimeter problems involving polygons (e.g., regular hexagons) and complex shapes (i.e., shapes composed of two or more common shapes)
Example Garden Lessons	

Standard 5: Geometry and Spatial Sense: PROPERTIES AND RELATIONSHIPS: Analyze properties of objects and relationships among the properties

Benchmark MA.6.5.1	Analyze and describe the relationships among the angles, side lengths, perimeters, and areas of similar geometric figures
Example Garden Lessons	

Benchmark MA.6.5.2	Create arguments for proving that two shapes are congruent
Example Garden Lessons	

Standard 6: Geometry and Spatial Sense: TRANSFORMATIONS AND SYMMETRY: Use transformations and symmetry to analyze mathematical situations

Benchmark MA.6.6.1	Use line symmetry and rotational symmetry to describe classifications of shapes (e.g., squares have 4 lines of symmetry and 90° rotational symmetry)
Example Garden Lessons	

Standard 7: Geometry and Spatial Sense: VISUAL AND SPATIAL SENSE: Use visualization and spatial reasoning to solve problems both within and outside of mathematics

Benchmark MA.6.7.1	Construct a two-dimensional representation from different angles of a three-dimensional object
Example Garden Lessons	

Benchmark MA.6.7.2	Draw two-dimensional shapes with specified properties
Example Garden Lessons	

Standard 8: Geometry and Spatial Sense: REPRESENTATIONAL SYSTEMS: Select and use different representational systems, including coordinate geometry

Benchmark MA.6.8.1	Predict the shape that is formed by connecting the points represented by given coordinates
Example Garden Lessons	

Benchmark MA.6.8.2	Use coordinate geometry to represent and analyze properties of geometric shapes
Example Garden Lessons	

Standard 9: Patterns, Functions, and Algebra: PATTERNS AND FUNCTIONAL RELATIONSHIPS: Understand various types of patterns and functional relationships

Benchmark MA.6.9.1	Represent visual and numerical patterns with tables and graphs and generalize the "rule" using words and symbols
Example Garden Lessons	

Benchmark MA.6.9.2	Describe simple one-step functions using words and symbols when given a table of "input" and "output" values
Example Garden Lessons	

Standard 10: Patterns, Functions, and Algebra: SYMBOLIC REPRESENTATION: Use symbolic forms to represent, model, and analyze mathematical situations

Benchmark MA.6.10.1	Interpret and solve problem situations involving two different variables
Example Garden Lessons	

Benchmark MA.6.10.2	Use fact families to solve for an unknown in an open sentence
Example Garden Lessons	

Benchmark MA.6.10.3	Evaluate algebraic expressions
Example Garden Lessons	

Standard 11: Data Analysis, Statistics, and Probability: FLUENCY WITH DATA: Pose questions and collect, organize, and represent data to answer those questions

Benchmark MA.6.11.1	Analyze how data collection methods and sample size can affect the results of data sets
Example Garden Lessons	

Standard 12: Data Analysis, Statistics, and Probability: STATISTICS: Interpret data using methods of exploratory data analysis

Benchmark MA.6.12.1	Determine and interpret the measures of center (mean, median, mode) of a data set and explain what each measure indicates about the data set
Example Garden Lessons	

Benchmark MA.6.12.2	Use a stem-and-leaf plot to analyze a set of data
Example Garden Lessons	

Standard 13: Data Analysis, Statistics, and Probability: DATA ANALYSIS: Develop and evaluate inferences

Standard 13: Data Analysis, Statistics, and Probability: DATA ANALYSIS: Develop and evaluate inferences, predictions, and arguments that are based on data

Benchmark MA.6.13.1	Make inferences about a population based on the interpretation of a sample data set
Example Garden Lessons	

Standard 14: Data Analysis, Statistics, and Probability: PROBABILITY: Understand and apply basic notions of chance and probability

Benchmark MA.6.14.1	Compute probabilities of simple compound events (e.g., rolling two dice, using two different spinners at the same time)
Example Garden Lessons	
