



**CORRELATION
SUNSHINE STATE STANDARDS
& GRADE LEVEL EXPECTATIONS**

SUBJECT: M/J Mathematics Series 1, 2, 3

SUBMISSION TITLE: Impact Math Course 2 (Grade 7)

PUBLISHER: Glencoe/McGraw-Hill

GRADE: 7

STRAND A: Number Sense, Concepts and Operations

STANDARD 1: The student understands the different ways numbers are represented and used in the real world.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.A.1.3.1: The student associates verbal names, written word names, and standard numerals with integers, fractions, decimals; numbers expressed as percents; numbers with exponents; numbers in scientific notation; radicals; absolute value; and ratios.</i></p>	<p>1. knows word names and standard numerals for integers, fractions, decimals, ratios, numbers expressed as percents, numbers with exponents, numbers expressed in scientific notation, and numbers expressed using the square root radical.</p> <p>2. reads and writes whole numbers and decimals in expanded form, including exponential notation..</p>	<p>Chapter 3, p. 149, pp. 196-202 Chapter 4, p. T271, Teacher Edition Chapter 8, p. 562, p. T562, Teacher Edition Glossary, p. 732 (integers, fractions, decimals in Course 1)</p>	M
<p><i>Benchmark MA.A.1.3.2: The student understands the relative size of integers, fractions, and decimals; numbers expressed as percents; numbers with exponents; numbers in scientific notation; radicals; absolute value; and ratios.</i></p>	<p>1. compares and orders integers, fractions, decimals, numbers with exponents, and numbers expressed as percents or in scientific notation, including ordering on a number line.</p>	<p>Chapter 3, pp. 190-203</p> <p>Chapter 3, p. 197, p. 210 Chapter 4, p. 219, p. 255 Chapter 8, p. 565, p. 575</p>	I M

<p><i>Benchmark MA.A.1.3.3:</i> The student understands concrete and symbolic representations of rational numbers and irrational numbers in real-world situations.</p>	1. knows examples of rational and irrational numbers in real-world situations, including the irrational numbers π and $\sqrt{2}$.	Chapter 2, p. 120 (not $\sqrt{2}$.)	M
	2. describes the meanings of rational and irrational numbers using physical or graphical displays.	Chapter 8, pp. 520-529 (irrational numbers not covered)	I
<p><i>Benchmark MA.A.1.3.4:</i> The student understands that numbers can be represented in a variety of equivalent forms, including integers, fractions, decimals, percents, scientific notation, exponents, radicals, and absolute value.</p>	3. constructs models to represent rational numbers.	Chapter 8, pp. 520-529	I
	1. knows the relationships among fractions, decimals, and percents.	Chapter 8, p. 520, p. 562, p. 565, p. 575	M
	2. expresses a given quantity in a variety of ways (for example, integers, fractions, decimals, numbers expressed as percent, numbers expressed in scientific notation, ratios).	Chapter 3, p. 192, pp. 195-197 Chapter 8, p. 520, p. 562, p. 565, p. 575	M
	3. knows whether numbers expressed in different forms are equal.	Chapter 3, p. 197, Chapter 8, p. 565, p. 575	M
4. converts a number expressed in one form to its equivalent in another form.	Chapter 3, p. 197, Chapter 8, p. 565, p. 575	M	

STANDARD 2: The student understands number systems.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.A.2.3.1:</i> The student understands and uses exponential and scientific notation.</p>	1. expresses whole numbers in exponential notation (for example $36 = 6^2$).	Chapter 4, pp. 149-178	I
	2. evaluates numerical expressions that contain exponential notation.	Chapter 4, pp. 149-176	I

<p><i>Benchmark MA.A.2.3.2: The student understands the structure of number systems other than the decimal number system.</i></p>	<p>3. expresses numbers greater than one in scientific notation.</p>	<p>Chapter 3, pp. 190-212</p>	<p>I</p>
	<p>4. expresses numbers in scientific notation as numbers in standard form.</p>	<p>Chapter 3, pp. 190-212</p>	<p>I</p>
	<p>1. applies knowledge of the decimal number system and of non-place-value systems.</p>	<p>Chapter 3, pp. 191-192, pp. 196-198, pp. 208-211 (decimal number system only)</p>	<p>I</p>

STANDARD 3: The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.A.3.3.1: The student understands and explains the effects of addition, subtraction, multiplication, and division on whole numbers, fractions, including mixed numbers, and decimals, including the inverse relationships of positive and negative numbers.</i></p>	<p>1. knows the effects of the four basic operations on whole numbers, fractions, mixed numbers, and decimals.</p>	<p>This standard is introduced in Course 1, and used constantly throughout Course 2 in a variety of problems and contexts.</p>	<p>I</p>
	<p>2. uses models or pictures to show the effects of addition, subtraction, multiplication, and division, on whole numbers, decimals, fractions, mixed numbers, and integers.</p>	<p>Chapter 4, pp. 219-253</p>	<p>I</p>
	<p>3. applies properties of rational numbers to solve problems (commutative, associative, distributive, identify, equality, inverse).</p>	<p>Chapter 1, pp. 52-73 (distributive property) Chapter 9,p. 627 (multiplicative inverse)</p>	<p>I</p>
	<p>4. knows the inverse relationship of positive and negative numbers.</p>	<p>Chapter 4, pp. 233-235</p>	<p>I</p>

<p><i>Benchmark MA.A.3.3.2: The student selects the appropriate operation to solve problems involving addition, subtraction, multiplication, and division of rational numbers, ratios, proportions, and percents, including the appropriate application of the algebraic order of operations.</i></p>	1. knows the appropriate operations to solve real-world problems involving fractions, decimals, and integers.	Chapter 4, all (in this chapter, students work on real-world problems involving rational numbers throughout)	I
	2. solves real-world problems involving decimals and fractions using two- or three-step problems.	Chapter 4, pp. 403-417	I
	3. solves real-world problems involving percents (for example, discounts, simple interest, taxes, tips).	Chapter 8, pp. 562-587	I
	4. applies order of operations to solve problems (parentheses, exponents, multiplication, division, addition, and subtraction).	Chapter 1, pp. 14-15, p. 25 Chapter 3, pp. 155-156	I
	5. knows proportional relationships and uses tables, graphs, or “constant ratio” relationships to solve and explain problems.	Chapter 8, pp. 520-561	I
<p><i>Benchmark MA.A.3.3.3: The student adds, subtracts, multiplies, and divides whole numbers, decimals, and fractions, including mixed numbers, to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.</i></p>	1. solves multi-step real-world problems involving whole numbers, fractions or decimals using appropriate methods of computation, such as mental computation, paper and pencil, and calculator).	Chapter 6, pp. 386-387, p. 393 p. T424, Teacher Edition Chapter 8, pp. 520-574	I

STANDARD 4: The student uses estimation in problem solving and computation.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.A.4.3.1: The student uses estimation strategies to predict results and to check the reasonableness of results.</i></p>	1. knows an appropriate estimation technique for a given situation using whole numbers, fractions and decimals.	Chapter 3, p. 209	M
		Chapter 4, pp. 250-251 Chapter 8, p. 568	M

	2. estimates to predict results and to check reasonableness of results.	Chapter 2, p. 123 Chapter 6, pp. 384-395 Chapter 8, p. 568	
	3. determines whether an exact answer is needed or an estimate would be sufficient.	Not covered	

STANDARD 5: The student understands and applies theories related to numbers.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<i>Benchmark MA.A.5.3.1: The student uses concepts about numbers, including primes, factors, and multiples, to build number sequences.</i>	1. knows if numbers are prime or composite.	Chapter 1, p. 73	M
	2. finds the greatest common factor and least common multiple of two or more numbers.	Not covered	
	3. determines the prime factorization of a composite number.	Chapter 1, p. 51 Chapter 2, pp. 107-108	M
	4. applies number theory concepts to determine the terms in a sequence.	Chapter 2, pp. 78-89	I
	5. applies number theory concepts, including divisibility rules, to solve real-world or mathematical problems.	Not covered	

STRAND B: Measurements

STANDARD 1: The student measures quantities in the real world and uses the measures to solve problems.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<i>Benchmark MA.B.1.3.1: The student uses concrete and graphic models to derive formulas for finding perimeter, area, surface area, circumference, and volume of two- and three-dimensional</i>	1. uses concrete and graphic models to create formulas for finding volumes of solids (prisms and cylinders).	Chapter 2, pp. 98-126	I
	2. uses concrete and graphic models to create formulas for finding surface area of prisms and cylinders.	Chapter 2, pp. 98-126	I

<p><i>shapes, including rectangular solids and cylinders</i></p>	<p>3. solves and explains problems involving perimeter, area, and circumference.</p>	<p>Chapter 2, p. 113, pp. 131-139, p. 143 Chapter 7, pp. 482-496</p>	<p>I</p>
<p><i>Benchmark MA.B.1.3.2: The student uses concrete and graphic models to derive formulas for finding rates, distance, time, and angle measures.</i></p>	<p>1. finds the measure of an angle by measuring with a protractor or applying angle relationships (for example, corresponding, complementary, supplementary, interior, exterior).</p>	<p>Not covered.</p>	
	<p>2. develops and uses the distance formula in solving real-world problems ($d = rt$).</p>	<p>Chapter 5, pp. 321-329 p. T31, Teacher Edition</p>	<p>I</p>
<p><i>Benchmark MA.B.1.3.3: The student understands and describes how the change of a figure in such dimensions as length, width, height, or radius affects its other measurements such as perimeter, area, surface area, and volume.</i></p>	<p>1. given a two- or three-dimensional figure, creates a new figure by increasing or decreasing the original dimensions.</p>	<p>Chapter 2, pp. 116-118 Chapter 7, pp. 450-514</p>	<p>I</p>
	<p>2. knows the relationship between the area or perimeters, areas, surface areas, or volumes of the original figure and those of the newly created figure.</p>	<p>Chapter 2, pp. 116-118 Chapter 7, pp. 450-514</p>	<p>I</p>
	<p>3. solves real-world or mathematical problems involving perimeter, area, circumference, surface area and volume and how these are affected by changes in the dimensions of the figures</p>	<p>Chapter 2, pp. 116-118 Chapter 7, pp. 450-514</p>	<p>I</p>
<p><i>Benchmark MA.B.1.3.4: The student constructs, interprets, and uses scale drawings such as those based on number lines and maps to solve real-world problems.</i></p>	<p>1. knows an appropriate scale needed to produce a proportional drawing or model.</p>	<p>Chapter 7, pp. 482-492</p>	<p>I</p>
	<p>2. knows proportional relationships used in scale drawings.</p>	<p>Chapter 7, pp. 482-492</p>	<p>I</p>
	<p>3. produces a scale drawing.</p>	<p>Chapter 7, pp. 482-492</p>	<p>I</p>

STANDARD 2: The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary).

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.B.2.3.1: The student uses direct (measured) and indirect (not measured) measures to compare a given characteristic in either metric or customary units.</i></p>	<ol style="list-style-type: none"> 1. measures length, weight or mass, and capacity or volume using customary or metric units. 2. knows relationships between metric units of mass and capacity (for example, one cubic centimeter of water weighs one gram). 3. finds measures of length, weight or mass, and capacity or volume using proportional relationships and properties of similar geometric figures (for example, using shadow measurement and properties of similar triangles to find the height of a flag pole). 	<p>Not covered</p> <p>Not covered</p> <p>Chapter 8, pp.548-553</p>	<p>I</p>
<p><i>Benchmark MA.B.2.3.2: The student solves problems involving units of measure and converts answers to a larger or smaller unit within either the metric or customary system.</i></p>	<ol style="list-style-type: none"> 1. compares units of measurement within a system (metric or customary). 2. performs operations on measurements within either the metric or customary system (for example, finds three times 27 inches and expresses the answer in yards). 3. selects the appropriate unit of measurement when solving real-world problems (for example linear, square, and cubic units). 4. solves problems using the metric or customary system involving conversions within the same system. 	<p>Not covered</p> <p>Not covered</p> <p>Chapter 2, pp. 119-125, p. 128, pp. 137-139 Chapter 5, p. T321, Teacher Edition</p> <p>Not covered</p>	<p>I</p>

STANDARD 3: The student estimates measurements in real-world problem situations.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.B.3.3.1: The student solves real-world and mathematical problems involving estimates of measurements including length, time, weight/mass, temperature, money, perimeter, area, and volume, in either customary or metric units.</i></p>	<p>1. knows whether an exact answer is needed or if an estimate is sufficient.</p>	<p>Not covered</p>	
	<p>2. estimates solutions to real-world problems by estimating the length, volume or capacity, weight or mass, perimeter, or area of objects or shapes in either customary and metric units.</p>	<p>Chapter 1, p. 123</p>	<p>M</p>
	<p>3. estimates solutions to real-world problems involving measurement, including estimates of time, temperature, and money.</p>	<p>Chapter 5, p. 321</p>	<p>M</p>

STANDARD 4: The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.B.4.3.1: The student selects appropriate units of measurement and determines and applies significant digits in a real-world context. (Significant digits should relate to both instrument precision and to the least precise unit of measurement).</i></p>	<p>1. selects appropriate units of measurement in a real-world context.</p>	<p>Chapter 2, pp.</p>	<p>M</p>
	<p>2. knows that measurements are always approximate and that the degree of accuracy of a measurement depends upon the precision of the instrument.</p>	<p>Chapter 2, pp. 119-125, p. 128, pp. 137-139 p. T134, Teacher Edition Chapter 5, p. T321, Teacher Edition</p>	<p>I</p>
	<p>3. knows the precision of different measuring instruments.</p>	<p>Not covered</p>	
	<p>4. determines the appropriate precision unit for a given situation.</p>	<p>Not covered</p>	

<p><i>Benchmark MA.B.4.3.2: The student selects and uses appropriate instruments, technology, and techniques to measure quantities in order to achieve specified degrees of accuracy in a problem situation.</i></p>	<ol style="list-style-type: none"> 1. selects a measurement tool (for example, scales, rulers, thermometers, measuring cups, protractors, gauges) appropriate to a given situation. 2. measures accurately with the measurement tools to the specified degree of accuracy for the task and in keeping with the precision of the measurement tool. 	<p>Not covered</p> <p>Chapter 2, pp. 134-135 p. T134, Teacher Edition</p>	<p style="text-align: center;">M</p>
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STRAND C: Geometry and Spatial Sense

STANDARD 1: The student describes, draws, identifies, and analyzes two- and three-dimensional shapes.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.C.1.3.1: The student understands the basic properties of, and relationships pertaining to, regular and irregular geometric shapes in two- and three-dimensions.</i></p>	<ol style="list-style-type: none"> 1. identifies, draws, and uses symbolic notation to denote the basic properties of geometric terms including lines (intersecting, skew, parallel, perpendicular) and congruent figures. 2. determines the measure of various types of angles using a protractor or angle relationships (including complementary, supplementary, and vertical angles). 3. compares and describes the attributes of regular and irregular polygons (for example, parallelogram, trapezoid, pentagon, hexagon). 4. identifies and classifies triangles and quadrilaterals. 	<p>Not covered</p> <p>Not covered (covered in Course 1)</p> <p>Not covered (covered in Course 1)</p> <p>Not covered (covered in Course 1)</p>	

	5. knows the attributes of and draws three-dimensional figures (pyramid, cone, sphere, hemisphere).	Chapter 2, pp. 109-112	I
	6. knows the properties of two- and three-dimensional figures.	Chapter 2, pp. 129-134	I

STANDARD 2: The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<i>Benchmark MA.C.2.3.1: The student understands the geometric concepts of symmetry, reflections, congruency, similarity, perpendicularity, parallelism, and transformations, including flips, slides, turns, and enlargements.</i>	1. uses manipulatives and drawings to solve problems requiring spatial visualization.	Chapter 2, pp. 91-107	I
	2. describes and applies the properties of parallelism, perpendicularity and symmetry in real-world contexts.	Not covered	
	3. recognizes, draws, and describes congruent and similar figures.	Chapter 7, pp. 450-470	I
	4. creates and describes the attributes of a figure either congruent or similar to a given figure.	Chapter 7, pp. 450-470	I
	5. identifies and performs the various transformations (reflection, translation, rotation) of a given figure on a coordinate plane.	Not covered	
<i>Benchmark MA.C.2.3.2: The student predicts and verifies patterns involving tessellations (a covering of a plane with congruent copies of the same pattern with no holes and no overlaps, like floor tiles).</i>	1. predicts and verifies whether a given shape or shapes will tessellate.	Not covered	
	2. given a simple tessellated pattern, determines the shape(s) and transformation(s).	Not covered	

	3. tessellates using reflection, translation, or rotation and any desired combinations.	Not covered	
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STANDARD 3: The student uses coordinate geometry to locate objects in both two- and three dimensions and to describe objects algebraically.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.C.3.3.1: The student represents and applies geometric properties and relationships to solve real-world and mathematical problems.</i></p>	1. observes, explains, and makes conjectures regarding geometric properties and relationships (among angles, lines, regular and irregular polygons).	Chapter 7, pp. 450-513 (in relation to similarity and congruence)	I
	2. creates and solves angle measurement problems for triangles.	Not covered (covered in Course 1)	
	3. demonstrates the Pythagorean relationship in right triangles using models or diagrams (for example, manipulatives, dot, graph, or isometric paper).	Chapter 4, pp. 269-273	I
	4. given two sides of a right triangle, uses the Pythagorean Theorem to find the length of the third side.	Chapter 4, pp. 271-272	I
<p><i>Benchmark MA.C.3.3.2: The student identifies and plots ordered pairs in all four quadrants of a rectangular coordinate system (graph) and applies simple properties of lines.</i></p>	1. identifies each quadrant and the characteristics of points in each quadrant (positive and negative).	Chapter 4, pp. 259-262	I
	2. identifies and plots ordered pairs in all four quadrants of the coordinate system.	Chapter 4, pp. 259-265	I

STRAND D: Algebraic Thinking

STANDARD 1: The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.D.1.3.1: The student describes a wide variety of patterns, relationships, and functions through models, such as manipulatives, tables, graphs, expressions, equations, and inequalities.</i></p>	<p>1. uses manipulatives and graphic materials to generate tables and charts (for example, input, output) to develop algebraic expressions, equations, or formulas.</p>	<p>Chapter 1, pp. 55-56, pp. 68-69, p. 71, Chapter 2, p. 79, pp. 87-88 Chapter 5, pp. 344-360 Chapter 6, pp. 395-405</p>	I
	<p>2. given instances of a pattern, expresses a generalization of the pattern using algebraic expressions.</p>	<p>Chapter 2, pp. 78-87 Chapter 5, pp. 344-360</p>	I
	<p>3. given an algebraic expression of a relationship or pattern, supplies specific instances of the relationship or pattern.</p>	<p>Chapter 2, pp. 78-87 Chapter 5, p. 349</p>	I
	<p>4. predicts outcomes based on a generalization of a pattern or relationship.</p>	<p>Chapter 2, pp. 78-82 Chapter 5, pp. 344-360 Chapter 6, p. 408</p>	I
<p><i>Benchmark MA.D.1.3.2: The student creates and interprets tables, graphs, equations, and verbal descriptions to explain cause-and-effect relationships.</i></p>	<p>1. interprets and creates tables, function tables, and graphs (all four quadrants).</p>	<p>Chapter 1, pp. 55-56, pp. 68-69, p. 71, Chapter 2, p. 79, pp. 87-88 Chapter 5, pp. 344-360 Chapter 9, pp. 602-643</p>	I
	<p>2. writes expressions and equations to describe relationships.</p>	<p>Chapter 1, pp. 4-31 Chapter 5, pp. 344-360 Chapter 6, pp. 409-418</p>	I
	<p>3. graphs equations to explain cause-and-effect relationships.</p>	<p>Chapter 5, pp. 322-333</p>	I

STANDARD 2: The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.D.2.3.1: The student represents and solves real-world problems graphically, with algebraic expressions, equations, and inequalities.</i></p>	1. translates verbal expressions and sentences into algebraic expressions and equations.	Chapter 1, pp. 4-31	I
	2. translates algebraic expressions, equations, or formulas representing real-world relationships into verbal expressions or sentences.	Chapter 1, pp. 11-12, 17, pp. 27-30	I
	3. given an algebraic equation or expression of a real-world application, substitutes integral values for variables and simplifies the results.	Not covered	
	4. uses pictures, models, manipulatives or other strategies to solve one-step and simple multistep linear equations.	Chapter 6, pp. 384-433	I
	5. graphs solutions to equations and inequalities on a number line.	Not covered	
	6. graphs linear equations on the coordinate plane from a table of values.	Chapter 5, pp. 322-360	I
<p><i>Benchmark MA.D.2.3.2: The student uses algebraic problem-solving strategies to solve real-world problems involving linear equations and inequalities.</i></p>	1. knows how to solve linear equations and inequalities representing real-world situations, using pictures, models, manipulatives (such as algebra tiles), or other strategies.	Chapter 6, p. 429-431 (linear equations)	M
	2. simplifies algebraic expressions with one variable.	Chapter 6, pp. 419-432	I

STRAND E: Data Analysis and Probability

STANDARD 1: The student understands and uses the tools of data analysis for managing information.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p><i>Benchmark MA.E.1.3.1: The student collects, organizes, and displays data in a variety of forms, including tables, line graphs, charts, bar graphs, to determine how different ways of presenting data can lead to different interpretations.</i></p>	<p>1. generates and collects data for analysis.</p>	<p>Chapter 10, pp. 694-696</p>	<p>I</p>
	<p>2. interprets and analyzes data presented in a variety of forms, including box-and-whisker graphs and scatter plots.</p>	<p>Chapter 10, pp. 709-722</p>	<p>I</p>
	<p>3. constructs, interprets, and explains displays of data, such as tables and graphs (circle graphs, single- and multiple- bar graphs, and single and multiple-line graphs) and explains how different displays of data lead to different interpretations.</p>	<p>Chapter 10, pp. 709-712, pp. 714-717</p>	<p>I</p>
<p><i>Benchmark MA.E.1.3.2: The student understands and applies the concepts of range and central tendency (mean, median, and mode).</i></p>	<p>1. finds the range, mean, median, and mode of data from a table, chart, or graph.</p>	<p>Chapter 10, pp. 710-722</p>	<p>I</p>
	<p>2. draws conclusions from an analysis of range and central tendency of a set of real-world data.</p>	<p>Chapter 10, pp. 710-722</p>	<p>I</p>
<p><i>Benchmark MA.E.1.3.3: The student analyzes real-world data by applying appropriate formulas for measures of central tendency and organizing data in a quality display, using appropriate technology, including calculators and computers.</i></p>	<p>1. applies and analyzes appropriate measures of central tendency (mode, mean, median, range) for a set of data.</p>	<p>Chapter 10, pp. 710-722</p>	<p>I</p>
	<p>2. uses technology, such as graphing calculators and computer spreadsheets, to analyze data and create graphs.</p>	<p>Not covered</p>	

STANDARD 2: The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<i>Benchmark MA.E.2.3.1: The student compares experimental results with mathematical expectations of probabilities.</i>	1. obtains experimental results using manipulatives.	Chapter 10, pp. 666-671, pp. 676-685	I
	2. explains observed difference between mathematical and experimental results.	Chapter 10, pp. 666-671, pp. 676-685	I
	3. calculates simple mathematical probabilities for independent and dependent events.	Chapter 10, pp. 666-671, pp. 676-685	
<i>Benchmark MA.E.2.3.2: The student determines odds for and odds against a given situation.</i>	1. computes the mathematical odds for and against a specified outcome in given real-world experiments.	Not covered	

STANDARD 3: The student uses statistical methods to make inferences and valid arguments about real-world situations.

BENCHMARK	GRADE LEVEL EXPECTATIONS	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<i>Benchmark MA.E.3.3.1: The student formulates hypotheses, designs experiments, collects and interprets data, and evaluates hypotheses by making inferences and drawing conclusions based on statistics (range, mean, median, and mode) and tables, graphs, and charts.</i>	1. formulates a hypothesis and designs an experiment.	Not covered	M
	2. performs the experiment and collects, organizes, and displays the data.	Not covered	
	3. evaluates the hypothesis by making inferences and drawing conclusions based on statistical results.	Chapter 10, p. 719	

<i>Benchmark MA.E.3.3.2: The student identifies the common uses and misuses of probability or statistical analysis in the everyday world.</i>	1. knows appropriate uses of statistics and probability in real-world situations.	Chapter 10, pp. 668-717	I
	2. knows when statistics and probability are used in misleading ways.	Chapter 10, p. 709, p. 716, p. 722	M

*Indepth/Mentioned