

*New Mexico
Curricular Standards
Mathematics - Grade 6
Correlations with Gourmet Curriculum Press, Inc.©
1.800.900.2290*

<i>Benchmark Number</i>	<i>Benchmark</i> • <i>Instructional Targets</i>	<i>Gourmet Resource</i>	<i>Taught</i>	<i>Tested</i>
NUMBER AND OPERATIONS				
Content Standard	Students will understand numerical concepts and mathematical operations.			
Grade 6 Benchmark	Understand numbers, ways of representing numbers, relationships among numbers, and number systems.			
1	<ul style="list-style-type: none"> Compare and order rational numbers. 	Appetizers 1 A; Main Dish Objective 1 (Number Concepts) Lesson 1; Application; Final Test; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Use equivalent representations for rational numbers (e.g., integers, decimals, fractions, percents, ratios, numbers with whole-number exponents). 	Appetizers 1 D & E; 2 C; 6 C; 7 B; 8 C; 11 A; Main Dish Objectives 1 (Number Concepts) Lessons 4 & 5; 2 (Mathematical Relations) Lesson 3; 6 (Addition) Lesson 3; 7 (Subtraction) Lesson 2; 8 (Multiplication) Lesson 3; 11 (Problem Solving) Lesson 1; Applications; Final Tests; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Use appropriate representations of positive rational numbers in the context of real-life applications. 	Appetizers 1 A, B, C, D, & E; Main Dish Objective 1 (Number Concepts) Lessons 1, 2, 3, 4, & 5; Applications; Final Test; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Identify greatest common factor and least common multiples for a set of whole numbers. 	Appetizers 1 D & F; Main Dish Objective 1 (Number Concepts) Lessons 4 & 6; Applications; Final Test; Reasonableness Problems; Journal Topics		

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5	<ul style="list-style-type: none"> Identify and represent on a number line decimals, fractions, mixed numbers, and positive and negative integers. 	Appetizers 2 F; Main Dish Objective 2 (Mathematical Relations) Lesson 6; Application; Final Test; Reasonableness Problems; Journal Topics		
Grade 6 Benchmark	Understand the meaning of operations and how they relate to one another.			
1	<ul style="list-style-type: none"> Calculate multiplication and division problems using contextual situations. 	Appetizers 8 A; Main Dish Objective 8 (Multiplication) Lesson 1; Application; Final Test; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Factor a whole number into a product of its primes. 	Appetizers 1 D & F; 8 C; Main Dish Objectives 1 (Number Concepts) Lessons 4 & 6; 8 (Multiplication) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Demonstrate the relationship and equivalency among ratios and percents. 	Appetizers 1 E; 2 C; Main Dish Objectives 1 (Number Concepts) Lesson 5; 2 (Mathematical Relations) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Use proportions to solve problems. 	Appetizers 1 E; 2 C; Main Dish Objectives 1 (Number Concepts) Lesson 5; 2 (Mathematical Relations) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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5	<ul style="list-style-type: none"> • <i>Explain and perform:</i> <ul style="list-style-type: none"> - <i>whole number division and express remainders as decimals or appropriately in the context of the problem</i> - <i>addition, subtraction, multiplication, and division with decimals</i> - <i>addition and subtraction with integers</i> - <i>addition, subtraction, and multiplication with fractions and mixed numerals</i> 	<p>Appetizers 9 B, C, D, F, & G; Main Dish Objective 9 (Division) Lessons 2, 3, 4, 6, & 7</p> <p>Appetizers 6 D; 7 C; 8 D; 9 F & G; Main Dish Objectives 6 (Addition) Lesson 4; 7 (Subtraction) Lesson 3; 8 (Multiplication) Lesson 4; 9 (Division) Lessons 6 & 7</p> <p>Appetizers 2 A & B; Main Dish Objective 2 (Mathematical Relations) Lessons 1 & 2</p> <p>Appetizers 6 C; 7 B; 9 E; Main Dish Objectives 6 (Addition) Lesson 3; 7 (Subtraction) Lesson 2; 9 (Division) Lesson 5</p> <p>Applications; Final Tests; Reasonableness Problems; Journal Topics</p>		
6	<ul style="list-style-type: none"> • <i>Determine the least common multiple and the greatest common divisor of whole numbers and use them to solve problems with fractions.</i> 	<p>Appetizers 1 D; 6 C; 7 B; 9 E; 11 A; Main Dish Objectives 1 (Number Concepts) Lesson 4; 6 (Addition) Lesson 3; 7 (Subtraction) Lesson 2; 9 (Division) Lesson 5; 11 (Problem Solving) Lesson 1; Applications; Final Tests; Reasonableness Problems; Journal Topics</p>		

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Grade 6 Benchmark	Compute fluently and make reasonable estimates.			
1	<ul style="list-style-type: none"> Estimate quantities involving rational numbers using various estimations. 	Appetizers 1 B; 7 D; 9 C; 10 A, B, C, D, E, F, & G; 11 A; Main Dish Objectives 1 (Number Concepts) Lesson 2; 7 (Subtraction) Lesson 4; 9 (Division) Lesson 3; 10 (Estimation) Lessons 1, 2, 3, 4, 5, 6, & 7; 11 (Problem Solving) Lesson 1; Applications; Final Tests; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Use estimates to check reasonableness of results and make predictions in situations involving rational numbers. 	Appetizers 13 A & B; Main Dish Objective 13 (Reasonableness) Lessons 1 & 2; Applications; Final Test; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Determine if a problem situation calls for an exact or approximate answer and perform the appropriate computation. 	Appetizers 10 A, B, C, D, E, F, & G; 11 A; 13 A & B; Main Dish Objectives 10 (Estimation) Lessons 1, 2, 3, 4, 5, 6, & 7; 11 (Problem Solving) Lesson 1; 13 (Reasonableness) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Compare and order positive and negative fractions, decimals, and mixed numbers and place them on a number line. 	Appetizers 1 A & D; 2 F; Main Dish Objectives 1 (Number Concepts) Lessons 1 & 4; 2 (Mathematical Relations) Lesson 6; Applications; Final Tests; Reasonableness Problems; Journal Topics		
5	<ul style="list-style-type: none"> Convert fractions to decimals and percents and use these representations in estimations, computations, and applications. 	Appetizers 1 E; 10 E; Main Dish Objectives 1 (Number Concepts) Lesson 5; 10 (Estimation) Lessons 5 & 8; Enrichments 1, 2, & 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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6	<ul style="list-style-type: none"> Interpret and use ratios in different contexts. 	Appetizers 1 E & F; 2 C; 5 D; Main Dish Objectives 1 (Number Concepts) Lessons 5 & 6; 2 (Mathematical Relations) Lesson 3; 5 (Probability/Statistics) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
7	<ul style="list-style-type: none"> Compute and perform multiplication and division of fractions and decimals and apply these procedures to solving problems. 	Appetizers 8 D; 9 E, F, & G; 10 F & G; 11 A; Main Dish Objectives 8 (Multiplication) Lesson 4; 9 (Division) Lessons 5, 6, & 7; 10 (Estimation) Lessons 6 & 7; 11 (Problem Solving) Lesson 1; Applications; Final Tests; Reasonableness Problems; Journal Topics		
ALGEBRA				
Content Standard	Students will understand algebraic concepts and applications.			
Grade 6 Benchmark	Understand patterns, relations, and functions.			
1	<ul style="list-style-type: none"> Solve problems involving proportional relationships. 	Appetizers 1 E; 2 C; 5 D; 11 A; Main Dish Objectives 1 (Number Concepts) Lesson 5; 2 (Mathematical Relations) Lesson 3; 5 (Probability/Statistics) Lesson 4; 11 (Problem Solving) Lesson 1; Applications; Final Tests; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Graph ordered pairs in the coordinate plane. 	Appetizers 2 E; Main Dish Objective 2 (Mathematical Relations) Lesson 5; Application; Final Test; Reasonableness Problems; Journal Topics		

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3	<ul style="list-style-type: none"> Explain and use symbols to represent unknown quantities and variable relationships. 	Appetizers 2 A, B, & D; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lessons 1, 2, & 4; 12 (Mathematical Representation) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Explain and use the relationships among ratios, proportions, and percents. 	Appetizers 1 E; 2 C; 5 D; 11 A; Main Dish Objectives 1 (Number Concepts) Lesson 5; 2 (Mathematical Relations) Lesson 3; 5 (Probability/Statistics) Lesson 4; 11 (Problem Solving) Lesson 1; Applications; Final Tests; Reasonableness Problems; Journal Topics		
5	<ul style="list-style-type: none"> Make generalizations based on observed patterns and relationships. 	Appetizers 2 A, B, & D; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lessons 1, 2, & 4; 12 (Mathematical Representation) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
Grade 6 Benchmark	Represent and analyze mathematical situations and structures using algebraic symbols.			
1	<ul style="list-style-type: none"> Solve problems involving proportional relationships. 	Appetizers 5 D; Main Dish Objective 5 (Probability/Statistics) Lesson 4; Application; Final Test; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Use letters to represent an unknown in an equation. 	Appetizers 2 A, B, & D; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lessons 1, 2, & 4; 12 (Mathematical Representation) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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3	<ul style="list-style-type: none"> Solve one-step linear equations and inequalities in one variable with positive whole-number solutions. 	Appetizers 2 D; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lesson 4; 12 (Mathematical Representation) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Demonstrate that a variable can represent a single quantity that changes. 	Appetizers 2 A, B, & D; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lessons 1, 2, & 4; 12 (Mathematical Representation) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
5	<ul style="list-style-type: none"> Demonstrate how changes in one variable affect other variables. 	Appetizers 2 A, B, & D; 4 D & E; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lessons 1, 2, & 4; 4 (Measurement) Lessons 4 & 5; 12 (Mathematical Representation) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
Grade 6 Benchmark	Use mathematical models to represent and understand quantitative relationships.			
1	<ul style="list-style-type: none"> Develop and use mathematical models to represent and justify mathematical relationships found in a variety of situations. 	Appetizers 2 A, B, & D; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lessons 1, 2, & 4; 12 (Mathematical Representation) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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2	<ul style="list-style-type: none"> • <i>Create, explain, and use mathematical models such as:</i> <ul style="list-style-type: none"> - <i>Venn diagrams to show the relationships between the characteristics of two or more sets</i> - <i>equations and inequalities to model numerical relationships</i> - <i>three-dimensional geometric models</i> - <i>graphs, tables, and charts to interpret and analyze data</i> 	<p>Appetizers 2 D; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lesson 4; 12 (Mathematical Representation) Lessons 1 & 2</p> <p>Appetizers 3 A; Main Dish Objective 3 (Geometry) Lesson 1</p> <p>Appetizers 2 D & F; 5 B; 12 C; Main Dish Objectives 2 (Mathematical Relations) Lessons 4 & 6; 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3</p> <p>Applications; Final Tests; Reasonableness Problems; Journal Topics</p>		
Grade 6 Benchmark	Analyze changes in various contexts.			
1	<ul style="list-style-type: none"> • <i>Represent and explain changes using one-step equations with one variable.</i> 	<p>Appetizers 2 D; 12 A & B; Main Dish Objectives 2 (Mathematical Relations) Lesson 4; 12 (Mathematical Representation) Lessons 1 & 2; Applications; Final Tests; Reasonableness Problems; Journal Topics</p>		
2	<ul style="list-style-type: none"> • <i>Solve problems that involve change using proportional relationships.</i> 	<p>Appetizers 5 D; Main Dish Objective 5 (Probability/Statistics) Lesson 4; Application; Final Test; Reasonableness Problems; Journal Topics</p>		

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3	<ul style="list-style-type: none"> Use ratios to predict changes in proportional situations. 	Appetizers 1 E; 2 C; 5 D; Main Dish Objectives 1 (Number Concepts) Lesson 5; 2 (Mathematical Relations) Lesson 3; 5 (Probability/Statistics) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Use tables and symbols to represent and describe proportional and other relationships involving conversions, sequences, and perimeter. 	Appetizers 4 D; 5 D; 11 B & D; Main Dish Objectives 4 (Measurement) Lesson 4; 5 (Probability/Statistics) Lesson 4; 11 (Problem Solving) Lessons 2 & 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
5	<ul style="list-style-type: none"> Generate formulas to represent relationships involving changes in perimeter. 	Appetizers 4 D; 11 B; Main Dish Objectives 4 (Measurement) Lesson 4; 11 (Problem Solving) Lesson 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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	GEOMETRY			
Content Standard	Students will understand geometric concepts and applications.			
Grade 6 Benchmark	Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.			
1	<ul style="list-style-type: none"> Identify, describe, and classify the properties of, and the relationships between, plane and solid geometric figures: <ul style="list-style-type: none"> measure, identify, and draw angles, perpendicular and parallel lines, rectangles, and triangles by using appropriate tools (e.g., straightedge, ruler, compass, protractor, drawing software) understand that the sum of angles of any triangle is 180 degrees and the sum of the angles of any quadrilateral is 360 degrees and use this information to solve problems visualize and draw two-dimensional views of three-dimensional objects made from rectangular solids 	Appetizers 3 A & D; Main Dish Objective 3 (Geometry) Lessons 1 & 4; Applications; Final Test; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Classify angles as right, obtuse, or straight. 	Appetizers 3 D; Main Dish Objective 3 (Geometry) Lesson 4; Application; Final Test; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Describe the properties of geometric figures that include regular polygons, circles, ellipses, cylinders, cones, spheres, and cubes. 	Appetizers 3 A; Main Dish Objective 3 (Geometry) Lesson 1; Application; Final Test; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Classify polygons as regular or irregular. 	Appetizers 3 A; Main Dish Objective 3 (Geometry) Lesson 1; Application; Final Test; Reasonableness Problems; Journal Topics		

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5	<ul style="list-style-type: none"> Classify triangles as scalene, isosceles, or equilateral and by angles (i.e., right, acute, and obtuse). 	Appetizers 3 D; Main Dish Objective 3 (Geometry) Lesson 4; Application; Final Test; Reasonableness Problems; Journal Topics		
6	<ul style="list-style-type: none"> Identify angle, line, segment, and ray and use the symbols for each. 	Appetizers 3 A; Main Dish Objective 3 (Geometry) Lesson 1; Application; Final Test; Reasonableness Problems; Journal Topics		
7	<ul style="list-style-type: none"> Describe the relationship between radius, diameter, and circumference of a circle. 	Appetizers 4 D; 11 B; Main Dish Objective 4 (Measurement) Lesson 4; 11 (Problem Solving) Lesson 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
Grade 6 Benchmark	Specify locations and describe spatial relationships using coordinate geometry and other representational systems.			
1	<ul style="list-style-type: none"> Use coordinate geometry to describe location on a plane. 	Appetizers 2 E; Main Dish Objective 2 (Mathematical Relations) Lesson 5; Application; Final Test; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Recognize skewed lines in space. 			
Grade 6 Benchmark	Apply transformations and use symmetry to analyze mathematical situations.			
1	<ul style="list-style-type: none"> Identify line of symmetry with rotation and scaling. 	Appetizers 3 B & C; Main Dish Objective 3 (Geometry) Lessons 2 & 3; Applications; Final Test; Reasonableness Problems; Journal Topics		

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Grade 6 Benchmark	Use visualization, spatial reasoning, and geometric modeling to solve problems.			
1	<ul style="list-style-type: none"> Use appropriate technology, manipulatives, constructions, or drawings to recognize or compare geometric figures. 	Appetizers 3 A, B, C, & D; 11 C; Main Dish Objectives 3 (Geometry) Lessons 1, 2, 3, & 4; 11 (Problem Solving) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
MEASUREMENT				
Content Standard	Students will understand measurement systems and applications.			
Grade 6 Benchmark	Understand measurable attributes of objects and the units, systems, and process of measurement.			
1	<ul style="list-style-type: none"> Perform multi-step conversions of measurement units to equivalent units within a given system (e.g., 36 inches equals 3 feet or 1 yard). 	Appetizers 4 B; Main Dish Objective 4 (Measurement) Lesson 2; Application; Final Test; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Estimate measurement in both U.S. customary and metric units. 	Appetizers 4 B & C; Main Dish Objective 4 (Measurement) Lessons 2 & 3; Applications; Final Test; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Select and use units of appropriate size and type to measure angles (e.g., degrees, radians), perimeter, area, and capacity in both U.S. customary and metric systems. 	Appetizers 3 D; 4 D & E; 11 B; Main Dish Objectives 3 (Geometry) Lesson 4; 4 (Measurement) Lessons 4 & 5; 11 (Problem Solving) Lesson 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Use standard units of linear measurement to the nearest sixteenth of an inch; metric measurements to the nearest millimeter. 	Appetizers 4 B & C; 11 B; Main Dish Objectives 4 (Measurement) Lessons 2 & 3; 11 (Problem Solving) Lesson 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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Grade 6 Benchmark	Apply appropriate techniques, tools, and formulas to determine measurements.			
1	<ul style="list-style-type: none"> Apply various measurement techniques and tools, units of measure, and degrees of accuracy to find accurate rational number representations for length, liquid, weight, perimeter, temperature, and time. 	Appetizers 4 A, B, C, & D; 11 B; Main Dish Objectives 4 (Measurement) Lessons 1, 2, 3, & 4; 11 (Problem Solving) Lesson 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Select and use formulas for perimeters of squares and rectangles. 	Appetizers 4 D & E; 11 B; Main Dish Objectives 4 (Measurement) Lessons 4 & 5; 11 (Problem Solving) Lesson 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Select and use strategies to estimate measurements including angle measure and capacity. 	Appetizers 4 B, C, & D; 11 B; Main Dish Objectives 4 (Measurement) Lessons 2, 3, & 4; 11 (Problem Solving) Lesson 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Select and justify the selection of measurement tools, units of measure, and degrees of accuracy appropriate to the given situation. 	Appetizers 4 A, B, & C; 11 B; Main Dish Objectives 4 (Measurement) Lessons 1, 2, & 3; 11 (Problem Solving) Lesson 2; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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DATA ANALYSIS AND PROBABILITY				
Content Standard	Students will understand how to formulate questions, analyze data, and determine probabilities.			
Grade 6 Benchmark	Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.			
1	<ul style="list-style-type: none"> Use statistical representations to analyze data. 	Appetizers 5 B; 11 D; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 11 (Problem Solving) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Draw and compare different graphical representations of the same data. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Use mean, median, mode, and range to describe data. 	Appetizers 5 E; Main Dish Objective 5 (Probability/Statistics) Lesson 5; Application; Final Test; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Sketch circle graphs to display data. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
5	<ul style="list-style-type: none"> Solve problems by collecting, organizing, displaying, and interpreting data. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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6	<ul style="list-style-type: none"> Compare different samples of a population with the entire population and determine the appropriateness of using a sample. 	Appetizers 5 A; 11 D; Main Dish Objectives 5 (Probability/Statistics) Lesson 1; 11 (Problem Solving) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
7	<ul style="list-style-type: none"> Conduct and explain sampling techniques such as observations, surveys, and random sampling for gathering data. 	Appetizers 5 A; Main Dish Objective 5 (Probability/Statistics) Lesson 1; Application; Final Test; Reasonableness Problems; Journal Topics		
8	<ul style="list-style-type: none"> Determine the median for a rational number data set containing an odd number of data points. 	Appetizers 5 E; Main Dish Objective 5 (Probability/Statistics) Lesson 5; Application; Final Test; Reasonableness Problems; Journal Topics		
9	<ul style="list-style-type: none"> Calculate and explain the median for a whole number data set containing an even number of data points. 	Appetizers 5 E; Main Dish Objective 5 (Probability/Statistics) Lesson 5; Application; Final Test; Reasonableness Problems; Journal Topics		
10	<ul style="list-style-type: none"> Explain advantages and disadvantages of using various display formats for a specific data set. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
11	<ul style="list-style-type: none"> Formulate and solve problems by collecting, organizing, displaying, and interpreting data. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		

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Grade 6 Benchmark	Select and use appropriate statistical methods to analyze data.			
1	<ul style="list-style-type: none"> Choose an appropriate graphical format to organize and represent data. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Describe the effects of missing or incorrect data. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Compute and analyze statistical measurements for data sets: <ul style="list-style-type: none"> understand how additional data added to data sets may affect the computations of central tendency understand how the inclusion or exclusion of outliers affects measures of central tendency know why a specific measure of central tendency provides the most useful information in a given context 	Appetizers 5 E; Main Dish Objective 5 (Probability/Statistics) Lesson 5; Application; Final Test; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Use data samples of a population and describe the characteristics and limitations of the sample. 	Appetizers 5 B; Main Dish Objective 5 (Probability/Statistics) Lesson 2; Application; Final Test; Reasonableness Problems; Journal Topics		

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5	<ul style="list-style-type: none"> Identify different ways of selecting a sample (e.g., convenience sampling, responses to a survey, random sampling) and which method makes a sample more representative for a population. 	Appetizers 5 B; Main Dish Objective 5 (Probability/Statistics) Lesson 2; Application; Final Test; Reasonableness Problems; Journal Topics		
6	<ul style="list-style-type: none"> Explain how the way a question is asked in a survey might influence the results obtained. 	Appetizers 5 B; Main Dish Objective 5 (Probability/Statistics) Lesson 2; Application; Final Test; Reasonableness Problems; Journal Topics		
7	<ul style="list-style-type: none"> Identify data that represent sampling errors and explain why the sample and the display might be biased. 			
8	<ul style="list-style-type: none"> Identify claims based on statistical data and, in sample cases, evaluate the validity and usefulness of the claims. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
Grade 6 Benchmark	Develop and evaluate inferences and predictions that are based on data.			
1	<ul style="list-style-type: none"> Identify claims based on statistical data and evaluate the validity of the claim. 	Appetizers 5 B; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lesson 2; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Conduct observations, surveys, experiments and/or simulations, record the results in charts, tables, or graphs, and use the results to draw conclusions and make predictions. 	Appetizers 5 A, B, & C; Main Dish Objective 5 (Probability/Statistics) Lessons 1, 2, & 3; Applications; Final Test; Reasonableness Problems; Journal Topics		

Benchmark Number	Benchmark • Instructional Targets	Gourmet Resource	Taught	Tested
3	<ul style="list-style-type: none"> Find all possible combinations in a given set (e.g., the number of ways a set of books can be arranged on a shelf). 	Appetizers 5 C; 11 D; Main Dish Objectives 5 (Probability/Statistics) Lesson 3; 11 (Problem Solving) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
4	<ul style="list-style-type: none"> Compare expected results with actual results in a sample experiment. 	Appetizers 5 A; 11 D; Main Dish Objectives 5 (Probability/Statistics) Lesson 1; 11 (Problem Solving) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
Grade 6 Benchmark	Understand and apply basic concepts of probability.			
1	<ul style="list-style-type: none"> List all possible outcomes for a compound event composed of two independent events and recognize whether an outcome is certain, impossible, likely, or unlikely. 	Appetizers 5 A; Main Dish Objective 5 (Probability/Statistics) Lesson 1; Application; Final Test; Reasonableness Problems; Journal Topics		
2	<ul style="list-style-type: none"> Determine and compare experimental (empirical) and mathematical (theoretical) probabilities (e.g., flipping two color counters). 	Appetizers 5 A; 11 D; Main Dish Objectives 5 (Probability/Statistics) Lesson 1; 11 (Problem Solving) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
3	<ul style="list-style-type: none"> Determine theoretical and experimental probabilities and use them to make predictions about events. 	Appetizers 5 A; 11 D; Main Dish Objectives 5 (Probability/Statistics) Lesson 1; 11 (Problem Solving) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		

Benchmark Number	Benchmark • Instructional Targets	Gourmet Resource	Taught	Tested
4	<ul style="list-style-type: none"> Represent all possible outcomes for compound events in an organized way (e.g., tables, grids, tree diagrams) and express the theoretical probability of each outcome. 	Appetizers 5 B & C; 11 D; 12 C; Main Dish Objectives 5 (Probability/Statistics) Lessons 2 & 3; 11 (Problem Solving) Lesson 4; 12 (Mathematical Representation) Lesson 3; Applications; Final Tests; Reasonableness Problems; Journal Topics		
5	<ul style="list-style-type: none"> Use data to estimate the probability of future events (e.g., batting averages). 	Appetizers 5 D; Main Dish Objective 5 (Probability/Statistics) Lesson 4; Application; Final Test; Reasonableness Problems; Journal Topics		
6	<ul style="list-style-type: none"> Represent probabilities as ratios, proportions, decimals between 0 and 1, and percentages between 0 and 100 and verify that the probabilities computed are reasonable; know that if P is the probability of an event, $1 - P$ is the probability of the event not occurring. 	Appetizers 5 D; 11 D; Main Dish Objectives 5 (Probability/Statistics) Lesson 4; 11 (Problem Solving) Lesson 4; Applications; Final Tests; Reasonableness Problems; Journal Topics		
7	<ul style="list-style-type: none"> Describe the difference between independent and dependent events and identify situations involving independent or dependent events. 			