

LITCHFIELD PUBLIC SCHOOLS
Core Curriculum Scope and Sequence
Math/Grade 6

Algebraic Reasoning: Patterns and Functions

Patterns and functional relationships can be represented and analyzed using a variety of strategies, tools and technologies.

Essential Question: How do patterns and functions help us describe data and physical phenomena and solve a variety of problems?

UNIT ONE	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
All About Patterns (4 weeks)	1.1 Understand and describe patterns and functional relationships.	<ul style="list-style-type: none"> Analyze, describe in writing and extend a variety of patterns to justify predictions and identify trends. 	22A. Identify the missing terms in a pattern, or identify rules for a given pattern using numbers and attributes. 22B. Extend or complete patterns and state rules for given patterns using numbers and attributes. 25A. Solve extended numerical, statistical and spatial problems.	<i>IMPACT</i> Mathematics Course 1 Chapter 1	IMPACT Quiz and Tests Chapter 1
	1.2 Represent and analyze quantitative relationships in a variety of ways.	<ul style="list-style-type: none"> Create tables of values and scatterplots from mathematical relationships and equations and vice versa to solve problems. <i>Examine tables, graphs and equations to determine patterns of change in linear relationships.</i> Write expressions, formulas, equations or inequalities using symbols or variables to denote a pattern or represent a contextual situation. 	25A. Solve extended numerical, statistical and spatial problems.	<i>IMPACT</i> MathematicCourse1 Chapter 1	
	1.3 Use operations, properties and algebraic symbols to determine equivalence and solve problems.	<ul style="list-style-type: none"> Evaluate algebraic expressions and formulas using substitution. Write, model and solve one-step equations using mental math, tables, substitution and concrete models that demonstrate equivalence and justify the solution. 	23B. Evaluate equations, identify fact-family relationships and use formulas provided. 23A. Solve simple one-step algebraic equations.	IMPACT MathematicCourse1 Chapter 1	

LITCHFIELD PUBLIC SCHOOLS
Core Curriculum Scope and Sequence
Math/Grade 6

Geometry and Measurement

Shapes and structures can be analyzed, visualized, measured and transformed using a variety of strategies, tools and technologies.

Essential Question: How do geometric relationships and measurements help solve problems and make sense of our world?

	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
UNIT ONE All About Patterns (4 weeks)	3.1 Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	<ul style="list-style-type: none"> Classify sets and subsets of polygons using the relationship of the sides (length, parallel and perpendicular) and angles (types and measure). 	17A. Identify and classify two- and three-dimensional geometric shapes and figures. 17B. Draw, describe and classify 2-dimensional geometric shapes and figures.	IMPACT Mathematics Course 1 Chapter 1	IMPACT Quiz and Tests Chapter 1
		<ul style="list-style-type: none"> Make and test conjectures about polygons and congruence using side and angle relationships and describe the results in writing. 	18C. Identify congruent and similar figures.	<i>IMPACT</i> <i>Mathematics Course 1</i> <i>Chapter 1</i> -add to 1.1, 1.4	
		<ul style="list-style-type: none"> <i>Identify lines of symmetry and reflections, rotations and translations of geometric figures.</i> 	18A. Identify lines of symmetry. 18B. Draw lines of symmetry. 18D. Identify geometric reflections, rotations and translations.	<i>IMPACT</i> <i>Mathematics Course 1</i> <i>Chapter 1</i> -add to 1.4	
		<ul style="list-style-type: none"> Use rectangles as basic shapes to model and develop formulas for finding the area of triangles, parallelograms and trapezoids. Recognize the relationships among radius, diameter, circumference and area of circles and develop formulas for finding circumference and area based on these relationships. 	25A. Solve extended numerical, statistical and spatial problems.	IMPACT Mathematics Course 1 Chapter 1	
	3.3 Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	<ul style="list-style-type: none"> <i>Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight.</i> 	15A. Estimate lengths, areas and angle measures. 16A. Measure and determine perimeter, area and volume. Explain or show how the solution was determined. 16B. Identify appropriate customary or metric units of measure (length, temperature, capacity, mass) for a given situation.	<i>IMPACT</i> <i>Mathematics Course 1</i> <i>Chapter 1</i> Add to Science	

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Core Curriculum Scope and Sequence
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NUMERICAL AND PROPORTIONAL REASONING: Quantitative relationships can be expressed numerically in multiple ways in order to make connections and simplify calculations using a variety of strategies, tools and technologies.

Essential Question: How are quantitative relationships represented by numbers?

UNIT TWO	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
All About Numbers (4 weeks)	2.1 Understand that a variety of numerical representations can be used to describe quantitative relationships.	<ul style="list-style-type: none"> Locate and label whole numbers, fractions, decimals and positive and negative integers on number lines, scales, coordinate grids (all four quadrants) and measurement tools. 	4F. Identify points on number lines and scales, including fractions, decimals and integers. 4G. Locate points on number lines and scales, including fractions, decimals and integers. 18E. Locate and draw points on grids.	IMPACT Mathematics Course 1 Chapter 2	IMPACT Quiz and Tests Chapter 2
		<ul style="list-style-type: none"> Compare and order whole numbers, fractions, decimals and positive and negative integers in context using number lines and scales. 	4A. Order whole numbers up to six digits and decimals (tenths and hundredths). 4B. Order mixed numbers, fractions and decimals. 4C. Describe magnitude of whole numbers up to six digits and decimals (tenths and hundredths). 4D. Describe magnitude of fractions and mixed numbers.		
		<ul style="list-style-type: none"> <i>Represent and compare whole numbers (to a billion) and decimals (to thousandths) in expanded notation, e.g., $75.654 = (7 \times 10) + (5 \times 1) + (6 \times 0.1) + (5 \times 0.01) + (4 \times 0.001)$.</i> 	1A. Solve problems involving 100, 1,000 or 10,000 more/less and 0.1 more/less than a given number. 1B. Identify alternative forms of expressing whole numbers less than 10,000 using expanded notation and regrouping. (Decimals expressed in expanded notation is tested in Grade 7.) 1C. Use place value concepts to identify and compare the magnitude and value of digits in numbers.	IMPACT Mathematics Course 1 Chapter 2 -add to lesson 2.3	
		<ul style="list-style-type: none"> <i>Represent chain multiplication, including powers of 10 in exponential and standard form, e.g., $5 \times 5 \times 5 =$</i> 		IMPACT Mathematics Course 1 Chapter 2	

		$5^3 = 125$. <ul style="list-style-type: none"> Factor composite numbers and express them as a product of primes using exponents. 			
		<ul style="list-style-type: none"> Determine equivalent fraction, decimal, and percentage representations and choose among these forms to solve problems. 	2A. Relate fractions, mixed numbers, decimals and percents to their pictorial representations and vice versa. 2B. Identify and/or shade fractional parts of regions or sets, decimals (tenths and hundredths) and mixed numbers in pictures. 3A. Rename equivalent fractions and mixed numbers. 3B. Rename improper fractions and mixed numbers as equivalent decimals and vice versa. (Equivalent percentages are tested in Grade 7.)		
		<ul style="list-style-type: none"> Use ratios and rates (involving different units) to compare quantities. 	12A. Solve problems involving simple ratios. 25A. Solve extended numerical, statistical and spatial problems.		
	2.2 Use numbers and their properties to compute flexibly and fluently and to reasonably estimate measures and quantities.	<ul style="list-style-type: none"> Understand place value and patterns in place value when multiplying and dividing decimals by powers of 10. Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers, decimals and powers of 10, e.g., $4.25 \times 100 = 425$ and $365,000 \div 6,000 = 365 \div 6$; $365 \div 6 \approx 360 \div 6 \approx 60$. 	7B. Multiply and divide whole numbers and decimals by 10, 100 and 1,000. 7C. Multiply and divide two- and three-digit whole numbers and money amounts by one-digit numbers and one-digit decimals. 7D. Identify the correct placement of the decimal point in multiplication and division of decimals by one-digit numbers.	<i>IMPACT Mathematics Course 1 Chapter 2</i> -add to page 115	
		<ul style="list-style-type: none"> Estimate and find percentages of a number in context using benchmarks and number patterns and ratios to 100. 			
		<ul style="list-style-type: none"> Add, subtract, multiply and divide by fractions and decimals in context. Examine the relationships between multiplication by a unit fraction and dividing by the fraction's denominator, e.g., $\frac{1}{2}$ of \$6 is the same as $\\$6 \div 2$, and use this to solve problems. Use the inverse relationship between multiplication and division to make 	8A. Add and subtract fractions and mixed numbers with reasonable and appropriate denominators. 8B. Multiply whole numbers and fractions by fractions and mixed numbers.	IMPACT Mathematics Course 1 Chapter 2	

		<p>sense of procedures for multiplying and dividing fractions.</p> <ul style="list-style-type: none"> • Understand and defend in writing the magnitude of the result of multiplication or division problems involving fractions or decimals. 			
		<ul style="list-style-type: none"> • Determine when an estimate is sufficient or when an exact answer is needed. 	<p>4E. Round whole numbers up to 6 digits, fractions and decimals in context.</p> <p>10A. Identify the best expression to find an estimate.</p> <p>10B. Identify whether and why a particular strategy will result in an overestimate or an underestimate.</p> <p>11A. Identify a reasonable estimate to a problem, including estimating change.</p> <p>11B. Determine a reasonable estimate, and describe the strategy used to arrive at the estimate.</p> <p>11C. Given an estimate as a solution, judge its reasonableness and justify the decision.</p>		<p>IMPACT Quiz and Tests Chapter 2</p>
		<ul style="list-style-type: none"> • Write and solve multistep problems in context involving addition, subtraction, multiplication and division with whole numbers, fractions, decimals, money and simple percentages. 	<p>5A. Identify the appropriate operation or number sentence to solve a story problem.</p> <p>5B. Write story problems from equations involving fractions and decimals, including money amounts, using all operations.</p> <p>9A. Solve one-step story problems involving whole numbers, decimals and money amounts with or without extraneous information.</p> <p>9B. Solve two-step story problems involving whole numbers, decimals, fractions and money amounts without extraneous information.</p> <p>9C. Solve two-step problems involving whole numbers and decimals with extraneous information.</p> <p>9D. Solve two-step problems involving whole numbers, decimals or money amounts, and explain how the answer was determined.</p> <p>7A. Add and subtract two-, three- and four-digit whole numbers, money amounts and decimals.</p>		

		<ul style="list-style-type: none"> • Understand and use divisibility rules, factors of composite numbers and powers of 10 to find products and quotients. 	6A. Multiply and divide facts.	IMPACT Mathematics Course 1 Chapter 2	
		<ul style="list-style-type: none"> • Apply the order of operations and algebraic properties; i.e., commutative, associative, distributive, inverse operations, and the additive and multiplicative identities; to compute and solve multistep problems and explain solutions in writing. • <i>Use concrete models to develop strategies to add and subtract integers.</i> 	25A. Solve extended numerical, statistical and spatial problems.		

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Geometry and Measurement

Shapes and structures can be analyzed, visualized, measured and transformed using a variety of strategies, tools and technologies.

Essential Question: How do geometric relationships and measurements help solve problems and make sense of our world?

UNIT TWO	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
All About Numbers (4 weeks)	3.3 Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	<ul style="list-style-type: none"> • <i>Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight.</i> 	<p>15A. Estimate lengths, areas and angle measures.</p> <p>16A. Measure and determine perimeter, area and volume. Explain or show how the solution was determined.</p> <p>16B. Identify appropriate customary or metric units of measure (length, temperature, capacity, mass) for a given situation.</p>	<p><i>Impact</i> Mathematics Course 1 Chapter 2</p> <p>Add to Science</p>	<p>IMPACT Quiz and Tests Chapter 2</p>

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UNIT THREE	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
Working With Fractions and Decimals Rates, Ratios and Proportions (4 weeks)	1.2 Represent and analyze quantitative relationships in a variety of ways.	<ul style="list-style-type: none"> • Create tables of values and scatterplots from mathematical relationships and equations and vice versa to solve problems. • <i>Examine tables, graphs and equations to determine patterns of change in linear relationships.</i> • Write expressions, formulas, equations or inequalities using symbols or variables to denote a pattern or represent a contextual situation. 	25A. Solve extended numerical, statistical and spatial problems.	<i>IMPACT Mathematics Course 1 Chapter 5</i>	IMPACT Quiz and Tests Chapter 5 Warm Ups

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Essential Question: How are quantitative relationships represented by numbers?

UNIT THREE	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
Working With Fractions and Decimals Rate, Ratio and Proportions (4 Weeks)	2.1 Understand that a variety of numerical representations can be used to describe quantitative relationships.	<ul style="list-style-type: none"> Locate and label whole numbers, fractions, decimals and positive and negative integers on number lines, scales, coordinate grids (all four quadrants) and measurement tools. 	4F. Identify points on number lines and scales, including fractions, decimals and integers. 4G. Locate points on number lines and scales, including fractions, decimals and integers. 18E. Locate and draw points on grids.	<i>Impact</i> Chapter 5 (04-09 version)	IMPACT Quiz and Tests Chapter 3 Chapter 5 Warm Up
		<ul style="list-style-type: none"> Compare and order whole numbers, fractions, decimals and positive and negative integers in context using number lines and scales. 	4A. Order whole numbers up to six digits and decimals (tenths and hundredths). 4B. Order mixed numbers, fractions and decimals. 4C. Describe magnitude of whole numbers up to six digits and decimals (tenths and hundredths). 4D. Describe magnitude of fractions and mixed numbers.		
		<ul style="list-style-type: none"> Determine equivalent fraction, decimal, and percentage representations and choose among these forms to solve problems. 	2A. Relate fractions, mixed numbers, decimals and percents to their pictorial representations and vice versa. 2B. Identify and/or shade fractional parts of regions or sets, decimals (tenths and hundredths) and mixed numbers in pictures. 3A. Rename equivalent fractions and mixed numbers. 3B. Rename improper fractions and mixed numbers as equivalent decimals and vice versa. (Equivalent percentages are tested in Grade 7.)		

		<ul style="list-style-type: none"> Use ratios and rates (involving different units) to compare quantities. 	<p>12A. Solve problems involving simple ratios.</p> <p>25A. Solve extended numerical, statistical and spatial problems.</p>		
	<p>2.2 Use numbers and their properties to compute flexibly and fluently and to reasonably estimate measures and quantities.</p>	<ul style="list-style-type: none"> Understand place value and patterns in place value when multiplying and dividing decimals by powers of 10. Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers, decimals and powers of 10, e.g., $4.25 \times 100 = 425$ and $365,000 \div 6,000 = 365 \div 6$; $365 \div 6 \approx 360 \div 6 \approx 60$. 	<p>7B. Multiply and divide whole numbers and decimals by 10, 100 and 1,000.</p> <p>7C. Multiply and divide two- and three-digit whole numbers and money amounts by one-digit numbers and one-digit decimals.</p> <p>7D. Identify the correct placement of the decimal point in multiplication and division of decimals by one-digit numbers.</p>	Impact Chapter3 (04version)	
		<ul style="list-style-type: none"> Solve practical problems involving rates, ratios, percentages and proportionality. 			
		<ul style="list-style-type: none"> Add, subtract, multiply and divide by fractions and decimals in context. Describe situations in writing that connect multiplying fractions to determining the fractional part of a set. Examine the relationships between multiplication by a unit fraction and dividing by the fraction's denominator, e.g., $\frac{1}{2}$ of \$6 is the same as $\\$6 \div 2$, and use this to solve problems. Use the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions. Understand and defend in writing the magnitude of the result of multiplication or division problems involving fractions or decimals. 	<p>8A. Add and subtract fractions and mixed numbers with reasonable and appropriate denominators.</p> <p>8B. Multiply whole numbers and fractions by fractions and mixed numbers.</p>	Impact Chapter 3-add to 3.3 Impact Chapter 5	
		<ul style="list-style-type: none"> Determine when an estimate is sufficient or when an exact answer is needed. Estimate solutions to problems and justify the reasonableness of estimates in writing. 	<p>4E. Round whole numbers up to 6 digits, fractions and decimals in context.</p> <p>10A. Identify the best expression to find an estimate.</p> <p>10B. Identify whether and why a particular strategy will result in an</p>		

			<p>overestimate or an underestimate.</p> <p>11A. Identify a reasonable estimate to a problem, including estimating change.</p> <p>11B. Determine a reasonable estimate, and describe the strategy used to arrive at the estimate.</p> <p>11C. Given an estimate as a solution, judge its reasonableness and justify the decision.</p>		
		<ul style="list-style-type: none"> Write and solve multistep problems in context involving addition, subtraction, multiplication and division with whole numbers, fractions, decimals, money and simple percentages. 	<p>5A. Identify the appropriate operation or number sentence to solve a story problem.</p> <p>5B. Write story problems from equations involving fractions and decimals, including money amounts, using all operations.</p> <p>9A. Solve one-step story problems involving whole numbers, decimals and money amounts with or without extraneous information.</p> <p>9B. Solve two-step story problems involving whole numbers, decimals, fractions and money amounts without extraneous information.</p> <p>9C. Solve two-step problems involving whole numbers and decimals with extraneous information.</p> <p>9D. Solve two-step problems involving whole numbers, decimals or money amounts, and explain how the answer was determined.</p> <p>7A. Add and subtract two-, three- and four-digit whole numbers, money amounts and decimals.</p>		
		<ul style="list-style-type: none"> Understand and use divisibility rules, factors of composite numbers and powers of 10 to find products and quotients. 	<p>6A. Multiply and divide facts.</p>		

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Essential Question: How are quantitative relationships represented by numbers?

UNIT FOUR	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
Making Sense of Percents (3 weeks)	2.1 Understand that a variety of numerical representations can be used to describe quantitative relationships.	<ul style="list-style-type: none"> Locate and label whole numbers, fractions, decimals and positive and negative integers on number lines, scales, coordinate grids (all four quadrants) and measurement tools. 	4F. Identify points on number lines and scales, including fractions, decimals and integers. 4G. Locate points on number lines and scales, including fractions, decimals and integers. 18E. Locate and draw points on grids.	<i>IMPACT</i> Mathematics Course 1 Chapter 4	IMPACT Quiz and Tests Chapter 4
		<ul style="list-style-type: none"> Compare and order whole numbers, fractions, decimals and positive and negative integers in context using number lines and scales. 	4A. Order whole numbers up to six digits and decimals (tenths and hundredths). 4B. Order mixed numbers, fractions and decimals. 4C. Describe magnitude of whole numbers up to six digits and decimals (tenths and hundredths). 4D. Describe magnitude of fractions and mixed numbers.		
		<ul style="list-style-type: none"> Determine equivalent fraction, decimal, and percentage representations and choose among these forms to solve problems. 	2A. Relate fractions, mixed numbers, decimals and percents to their pictorial representations and vice versa. 2B. Identify and/or shade fractional parts of regions or sets, decimals (tenths and hundredths) and mixed numbers in pictures. 3A. Rename equivalent fractions and mixed numbers. 3B. Rename improper fractions and mixed numbers as equivalent decimals and vice versa. (Equivalent percentages are tested in Grade 7.)		

	<p>2.2 Use numbers and their properties to compute flexibly and fluently and to reasonably estimate measures and quantities.</p>	<ul style="list-style-type: none"> • Understand place value and patterns in place value when multiplying and dividing decimals by powers of 10. • <i>Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers, decimals and powers of 10, e.g., $4.25 \times 100 = 425$ and $365,000 \div 6,000 = 365 \div 6$; $365 \div 6 \approx 360 \div 6 \approx 60$.</i> 	<p>7B. Multiply and divide whole numbers and decimals by 10, 100 and 1,000. 7C. Multiply and divide two- and three-digit whole numbers and money amounts by one-digit numbers and one-digit decimals. 7D. Identify the correct placement of the decimal point in multiplication and division of decimals by one-digit numbers.</p>	<p>IMPACT Mathematics Course 1 Chapter 4</p>	
		<ul style="list-style-type: none"> • Estimate and find percentages of a number in context using benchmarks and number patterns and ratios to 100. • Solve practical problems involving rates, ratios, percentages and proportionality. 			<p>IMPACT Quiz and Tests Chapter 4</p>
		<ul style="list-style-type: none"> • Determine when an estimate is sufficient or when an exact answer is needed. • Estimate solutions to problems and justify the reasonableness of estimates in writing. 	<p>4E. Round whole numbers up to 6 digits, fractions and decimals in context. 10A. Identify the best expression to find an estimate. 10B. Identify whether and why a particular strategy will result in an overestimate or an underestimate. 11A. Identify a reasonable estimate to a problem, including estimating change. 11B. Determine a reasonable estimate, and describe the strategy used to arrive at the estimate. 11C. Given an estimate as a solution, judge its reasonableness and justify the decision.</p>		
		<ul style="list-style-type: none"> • Write and solve multistep problems in context involving addition, subtraction, multiplication and division with whole numbers, fractions, decimals, money and simple percentages. 	<p>5A. Identify the appropriate operation or number sentence to solve a story problem. 5B. Write story problems from equations involving fractions and decimals, including money amounts, using all operations. 9A. Solve one-step story problems involving whole numbers, decimals and money amounts with or without extraneous information. 9B. Solve two-step story problems</p>		

			<p>involving whole numbers, decimals, fractions and money amounts without extraneous information.</p> <p>9C. Solve two-step problems involving whole numbers and decimals with extraneous information.</p> <p>9D. Solve two-step problems involving whole numbers, decimals or money amounts, and explain how the answer was determined.</p> <p>7A. Add and subtract two-, three- and four-digit whole numbers, money amounts and decimals.</p>		
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Shapes and structures can be analyzed, visualized, measured and transformed using a variety of strategies, tools and technologies.

Essential Question: How do geometric relationships and measurements help solve problems and make sense of our world?

UNIT FOUR	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
Making Sense of Percents (3 weeks)	3.3 Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	<ul style="list-style-type: none"> • <i>Use ratios to convert between customary units of length, mass, capacity and time.</i> • <i>Use ratios and powers of 10 to convert between metric units.</i> 	<p>16C. Identify the correct solution to problems involving the conversions of measures of length, mass, capacity and time.</p> <p>16D. Solve problems involving conversions of measures of length, mass, capacity and time.</p> <p>25A. Solve extended numerical, statistical and spatial problems.</p>	<p><i>IMPACT Mathematics Course 1 Chapter 4</i></p> <p><i>Glencoe Book I-Lesson 4.5, 4.6</i></p>	IMPACT Quiz and Tests Chapter 4

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WORKING WITH DATA: PROBABILITY AND STATISTICS

Data can be analyzed to make informed decisions using a variety of strategies, tools and technologies.

Essential Question: How can collecting, organizing and displaying data help us analyze information and make reasonable predictions and informed decisions?

UNIT FOUR	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
Making Sense of Percents (3 weeks)	4.1 Collect, organize and display data using appropriate statistical and graphical methods.	<ul style="list-style-type: none"> Compare sets of data between two populations, e.g., heights of two classes of students, or within a population, e.g., height vs. arm length of sixth-grade students, using a variety of graphical representations. 	<p>20A. Draw reasonable conclusions from data in tables, pictographs, line graphs, circle graphs, stem-and-leaf plots and charts.</p> <p>24B. Sort or classify objects, and draw logical conclusions from data including Venn diagrams and transitive reasoning questions.</p>	<i>IMPACT</i> Mathematics Course 1 Chapter 4	IMPACT Quiz and Tests Chapter 4
	4.2 Analyze data sets to form hypotheses and make predictions.	<ul style="list-style-type: none"> Describe the shape of numerical data sets using measures of spread (range) and central tendency (mean, median, mode) and outliers. Determine how the mean, median, mode and range change as a result of changes in the data set and describe in writing. 	<p>20B. Solve problems involving means, medians and modes of sets of data.</p> <p>25A. Solve extended numerical, statistical and spatial problems.</p>	<i>IMPACT</i> Mathematics Course 1 Chapter 4	

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Essential Question: How can collecting, organizing and displaying data help us analyze information and make reasonable predictions and informed decisions?

UNIT FIVE	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
Analyzing Data (5 weeks)	4.1 Collect, organize and display data using appropriate statistical and graphical methods.	<ul style="list-style-type: none"> Compare sets of data between two populations, e.g., heights of two classes of students, or within a population, e.g., height vs. arm length of sixth-grade students, using a variety of graphical representations. 	<p>20A. Draw reasonable conclusions from data in tables, pictographs, line graphs, circle graphs, stem-and-leaf plots and charts.</p> <p>24B. Sort or classify objects, and draw logical conclusions from data including Venn diagrams and transitive reasoning questions.</p>	<p><i>IMPACT</i> Mathematics Course 1 Chapter 6</p> <p>- stress clear, complete answer using math vocabulary</p>	<p>IMPACT Quiz and Tests Chapter 6</p> <p>Warm Ups</p>
		<ul style="list-style-type: none"> Select, create and use appropriate graphical representations of data including, circle graphs, scatter plots, histograms, and stem and leaf plots. 	<p>19A. Identify correct information from tables, line graphs, bar graphs, stem-and-leaf plots and charts.</p> <p>19B. Create bar graphs and line graphs from data in tables and charts.</p> <p>25A. Solve extended numerical, statistical and spatial problems.</p>		
	4.2 Analyze data sets to form hypotheses and make predictions.	<ul style="list-style-type: none"> Describe the shape of numerical data sets using measures of spread (range) and central tendency (mean, median, mode) and outliers. Determine how the mean, median, mode and range change as a result of changes in the data set and describe in writing. 	<p>20B. Solve problems involving means, medians and modes of sets of data.</p> <p>25A. Solve extended numerical, statistical and spatial problems.</p>	<p>IMPACT Mathematics Course 1 Chapter 6</p> <p>- stress clear, complete answer using math vocabulary</p>	

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UNIT SIX	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
Geometry And Measurement (8 weeks)	1.3 Use operations, properties and algebraic symbols to determine equivalence and solve problems.	<ul style="list-style-type: none"> Evaluate algebraic expressions and formulas using substitution. 	23B. Evaluate equations, identify fact-family relationships and use formulas provided.	<i>Impact</i> Chapter 8	IMPACT Quiz and Tests Chapter 8
		<ul style="list-style-type: none"> Write, model and solve one-step equations using mental math, tables, substitution and concrete models that demonstrate equivalence and justify the solution. 	23A. Solve simple one-step algebraic equations.		Warm Ups

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Core Curriculum Scope and Sequence
Math/Grade 6

Geometry and Measurement

Shapes and structures can be analyzed, visualized, measured and transformed using a variety of strategies, tools and technologies.

Essential Question: How do geometric relationships and measurements help solve problems and make sense of our world?

UNIT SIX	Connecticut Frameworks/Standards	Content and Skill Objectives Students will be able to:	CMT Correlations	Primary Source Secondary Source	Assessments
Geometry and Measurement (8 weeks)	3.1 Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	<ul style="list-style-type: none"> Classify sets and subsets of polygons using the relationship of the sides (length, parallel and perpendicular) and angles (types and measure). 	17A. Identify and classify two- and three-dimensional geometric shapes and figures. 17B. Draw, describe and classify 2-dimensional geometric shapes and figures.	<i>Impact</i> Chapter 8	IMPACT Quiz and Tests Chapter 8 Warm Ups Teacher Made Strand Assessments
		<ul style="list-style-type: none"> Use rectangles as basic shapes to model and develop formulas for finding the area of triangles, parallelograms and trapezoids. Recognize the relationships among radius, diameter, circumference and area of circles and develop formulas for finding circumference and area based on these relationships. 	25A. Solve extended numerical, statistical and spatial problems.		
	3.2 Use spatial reasoning, location and geometric relationships to solve problems.	<ul style="list-style-type: none"> <i>Use and describe concrete strategies for finding the volume of rectangular solids and cylinders.</i> 	16A. Measure and determine perimeter, area and volume. Explain or show how the solution was determined.	<i>Impact</i> Chapter 8-add to chapter	
		<ul style="list-style-type: none"> <i>Use measurements to examine the ratios between corresponding side lengths of scale models and similar figures.</i> 	18C. Identify congruent and similar figures. 25A. Solve extended numerical, statistical and spatial problems.		
	3.3 Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	<ul style="list-style-type: none"> <i>Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight.</i> 	15A. Estimate lengths, areas and angle measures. 16A. Measure and determine perimeter, area and volume. Explain or show how the solution was	<i>Impact</i> Chapter 8 Add to Science	

			determined. 16B. Identify appropriate customary or metric units of measure (length, temperature, capacity, mass) for a given situation.	
		<ul style="list-style-type: none"> • <i>Use ratios to convert between customary units of length, mass, capacity and time.</i> • <i>Use ratios and powers of 10 to convert between metric units.</i> 	16C. Identify the correct solution to problems involving the conversions of measures of length, mass, capacity and time. 16D. Solve problems involving conversions of measures of length, mass, capacity and time. 25A. Solve extended numerical, statistical and spatial problems.	<i>Glencoe Book I-Lesson 8.1, 8.2, 9.3</i> <i>Glencoe Book II Chapter 8</i> <i>Scott Foresman-page 529</i>