



Sample, Jane

September 11, 2017

Grade 8

TESTING REPORT

MAP GROWTH

FALL 2017-2018

Summary

TEST	RIT SCORE	RANGE	PERCENTILE	TYPICAL OF
Growth: Math 6+ CCSS 2010 V2	232	229–235	65	9th Grade Winter
Growth: Reading 6+ CCSS 2010 V3	220	217–223	54	8th Grade Spring

Lexile Range	899–1049L
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Definitions

RIT Score: The student's overall score on the test.

RIT Range: If a student took the test again relatively soon, the score would fall within this range about 68% of the time.

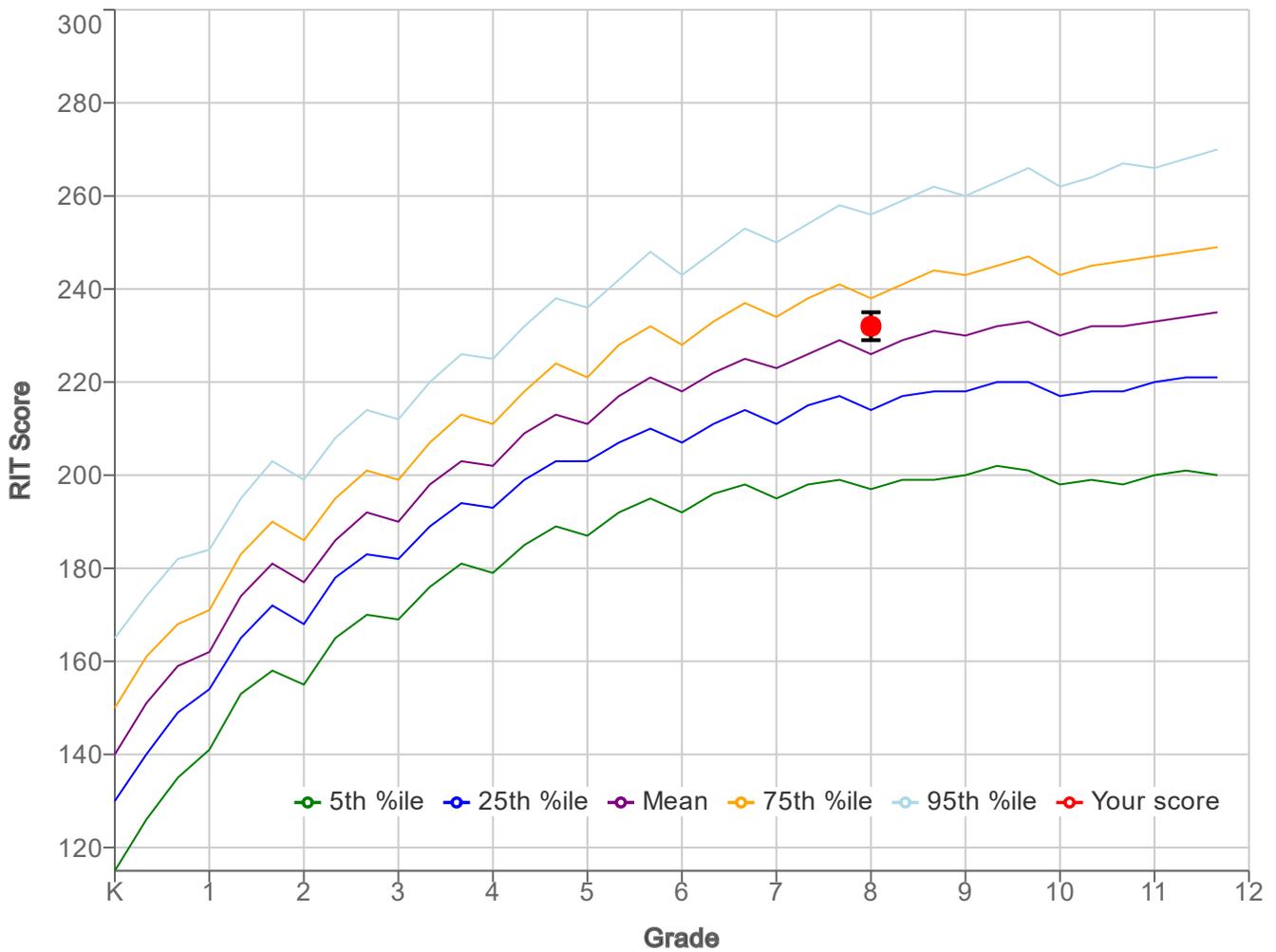
Percentile Rank: The percentage of students in the national norms group for this grade, subject, and test administration season that this student's score equaled or exceeded.

Typical of: This is the grade level and test session at which the 50th percentile of the national norms group is approximately equal to the student's score.

Lexile Range: A score (displayed as a 150-point range) resulting from a correlation between NWEA's RIT score and the Lexile scale that helps identify reading material that is at an appropriate difficulty level for an individual student. More information about the Lexile framework may be found: <https://lexile.com>

To investigate the colleges where your child's score might take them, check out [NWEA's College Explorer Tool](#).

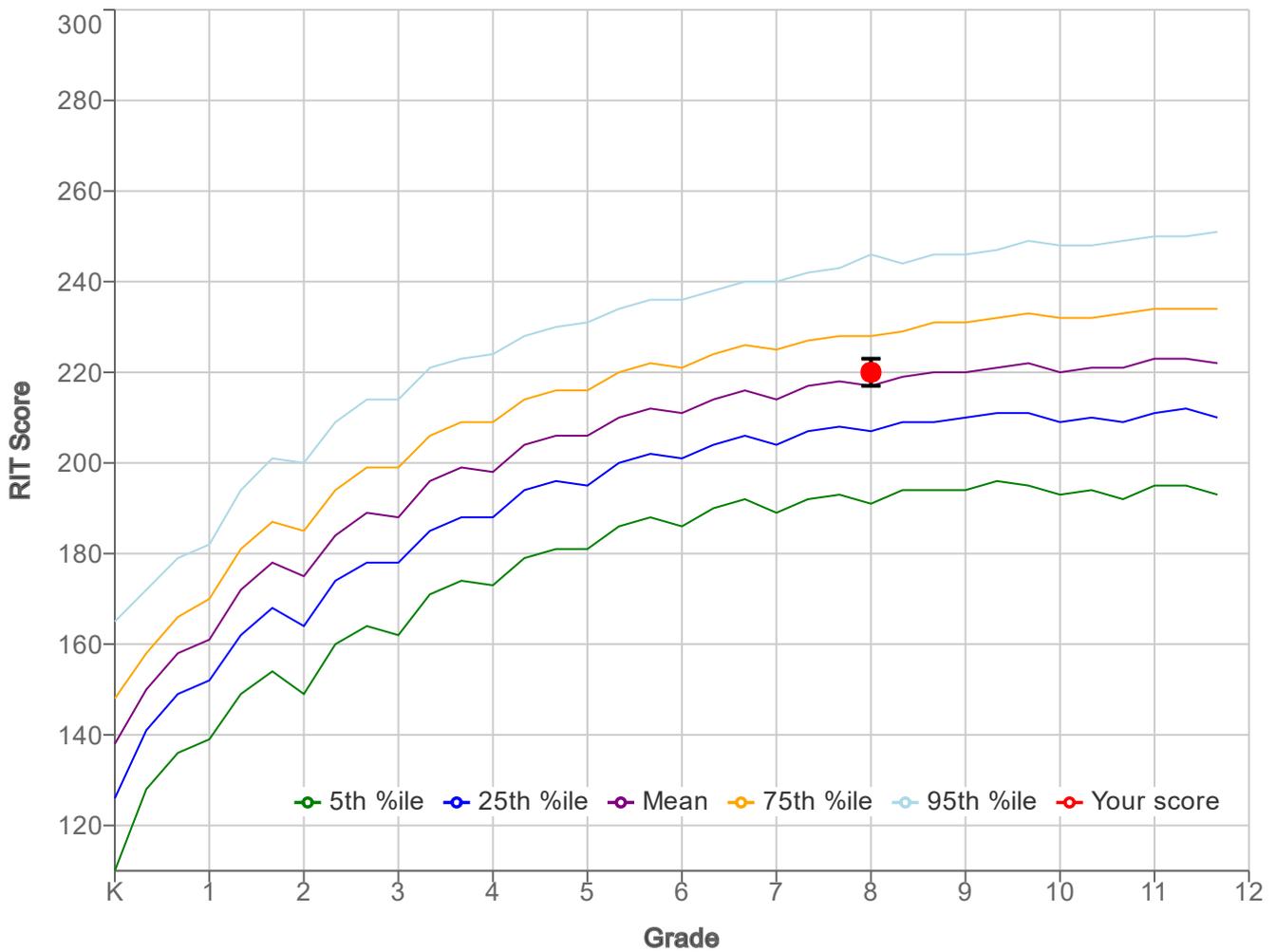
Mathematics



TEST	RIT SCORE	RANGE	PERCENTILE	TYPICAL OF
Growth: Math 6+ CCSS 2010 V2	232	229–235	65	9th Grade Winter

SECTION	RIT SCORE	RELATIVE TO AVERAGE
Operations and Algebraic Thinking	236	High-Average
The Real and Complex Number Systems	220	Low-Average
Geometry	237	High-Average
Statistics and Probability	238	High-Average

Reading



TEST	RIT SCORE	RANGE	PERCENTILE	TYPICAL OF
Growth: Reading 6+ CCSS 2010 V3	220	217-223	54	8th Grade Spring

SECTION	RIT SCORE	RELATIVE TO AVERAGE
Literary Text: Key Ideas and Details	217	Average
Literary Text: Language, Craft, Structure	215	Average
Informational Text: Key Ideas and Details	221	Average
Informational Text: Language, Craft, Structure	219	Average
Vocabulary: Acquisition and Use	221	Average

Learning Goals

The remainder of this report is an excerpt from NWEA's Learning Continuum that details the skills and concepts that are in the range of where your child performed on the MAP Growth test.

The "Reinforce" column shows skills and concepts where your child where your child was answering test items correctly about 75% of time and may need reinforcement to build consistent proficiency and confidence). The "Develop" column contains skills and concepts your child was answering correctly about 50% of the time (their zone of proximal development, or ZPD). The "Introduce" column has skills and concepts students were answering correctly about 25% of the time and may require additional scaffolding or pre-teaching. Each column is a range of 10 RIT points.

To continue growing at the same average rate as your child's academic peers, your child would need to increase their **Mathematics** RIT score by **4 points** on the Fall 2018–2019 MAP assessment. To increase their percentile ranking, we would recommend setting a goal of **4–11 points** over the next year. Users of Khan Academy may find [MAP to Khan Academy](#) helpful.

To continue growing at the same average rate as your child's academic peers, your child would need to increase their **Reading** RIT score by **3 points** on the Fall 2018–2019 MAP assessment. To increase their percentile ranking, we would recommend setting a goal of **3–9 points** over the next year.

MAP GROWTH MATHEMATICS LEARNING STATEMENTS

OPERATIONS AND ALGEBRAIC THINKING

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Algebraic Expressions		
Evaluates linear expressions at given values with variables involving negative rational numbers	Adds and subtracts polynomials	Adds and subtracts polynomials
Evaluates linear expressions at given values with variables involving positive rational numbers	Evaluates linear expressions at given values with variables involving negative rational numbers	Evaluates linear expressions at given values with variables involving negative rational numbers
Evaluates nonlinear expressions at given values with variables involving positive rational numbers	Evaluates linear expressions at given values with variables involving positive rational numbers	Evaluates linear expressions at given values with variables involving positive rational numbers
Generates equivalent linear expressions by combining like terms	Evaluates nonlinear expressions at given values with variables involving negative rational numbers	Evaluates nonlinear expressions at given values with variables involving negative rational numbers
Generates equivalent linear expressions by using the associative, commutative, and distributive properties, and by combining like terms	Evaluates nonlinear expressions at given values with variables involving positive rational numbers	Evaluates nonlinear expressions at given values with variables involving positive rational numbers
Generates equivalent linear expressions by using the associative, commutative, or distributive property	Factors polynomials using a difference of squares	Factors polynomials using a difference of squares
Translates between verbal and algebraic expressions	Factors quadratic trinomials	Factors quadratic trinomials
Writes linear expressions in one variable to represent real-world or mathematical contexts	Generates equivalent linear expressions by combining like terms	Generates equivalent linear expressions by combining like terms
	Generates equivalent linear expressions by using the associative, commutative, and distributive properties, and by combining like terms	Generates equivalent linear expressions by using the associative, commutative, and distributive properties, and by combining like terms
	Generates equivalent linear expressions by using the associative, commutative, or distributive property	Generates equivalent linear expressions by using the associative, commutative, or distributive property
	Generates equivalent nonlinear expressions by combining like terms	Interprets equivalent linear expressions within a real-world context
	Multiplies monomials	Interprets the coefficient in a linear expression within the context of a real-world relationship
	Multiplies a polynomial by a monomial	Interprets the variable in a linear expression within the context of a real-world relationship
	Multiplies two binomial expressions	Multiplies monomials

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Translates between verbal and algebraic expressions	Multiplies a polynomial by a monomial
	Writes linear expressions in one variable to represent real-world or mathematical contexts	Multiplies two binomial expressions
		Simplifies rational expressions

Coordinate Geometry

Plots points to represent solutions to real-world and mathematical problems

Decimals: Represent and Solve Word Problems

Represents multi-step word problems with expressions or equations and involving decimals with the same number of digits after the decimal point, including contexts involving money

Exponential and Logarithmic Functions

Evaluates an exponential function for a given value in its domain to solve a real-world problem	Describes the effects of changes in parameters on exponential functions that represent real-world relationships
Identifies the appropriate linear or exponential model that represents a real-world situation	Evaluates an exponential function for a given value in its domain to solve a real-world problem
Understands that exponential models grow and decay by equal factors over equal intervals	Identifies the appropriate linear or exponential model that represents a real-world situation
	Understands that exponential models grow and decay by equal factors over equal intervals
	Writes exponential functions to represent real-world or mathematical problems

Exponents

Evaluates numbers with whole-number bases and whole-number exponents	Represents a whole number as a power of a whole number	Evaluates numbers with negative integer bases and whole-number exponents
Represents a whole number as a power of a whole number	Uses properties of exponents to simplify numerical expressions involving negative integer exponents, including zero	Uses properties of exponents to simplify numerical expressions involving negative integer exponents, including zero
Uses properties of exponents to simplify numerical expressions involving whole-number exponents only	Uses properties of exponents to simplify numerical expressions involving whole-number exponents only	Uses properties of exponents to simplify numerical expressions involving whole-number exponents only
	Uses substitution to determine an unknown exponent in an equation	Uses substitution to determine an unknown exponent in an equation

Fractions: Represent and Solve Word Problems

Represents and solves word problems involving division of whole numbers where the quotient is a fraction	Represents and solves word problems involving division of whole numbers where the quotient is a fraction	Represents and solves word problems involving division of whole numbers where the quotient is a fraction
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Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Inequalities		
Determines whether a linear equation or inequality is true for a given value of the variable	Determines whether a linear equation or inequality is true for a given value of the variable	Represents an inequality in the form $x > c$ or $x < c$ on a number line given a real-world or mathematical context
Solves one-step linear inequalities with positive rational numbers	Solves one-step linear inequalities with negative rational numbers	Represents the solutions of a compound linear inequality on a number line
Writes a multi-step linear inequality in one variable to represent a real-world or mathematical context	Solves two-step linear inequalities	Represents the solutions of a one-step linear inequality on a number line
Writes a one-step linear inequality in one variable to represent a real-world or mathematical context	Writes a compound inequality to represent a real-world or mathematical context	Represents the solutions of a two-step linear inequality on a number line
Writes a two-step linear inequality in one variable to represent a real-world or mathematical context	Writes a linear inequality in two variables to represent a real-world or mathematical context	Solves multi-step linear inequalities
	Writes a linear inequality to represent a region on the coordinate plane	Solves one-step linear inequalities with negative rational numbers
	Writes a multi-step linear inequality in one variable to represent a real-world or mathematical context	Solves two-step linear inequalities
	Writes a one-step linear inequality in one variable to represent a real-world or mathematical context	Writes a compound inequality to represent a real-world or mathematical context
	Writes a two-step linear inequality in one variable to represent a real-world or mathematical context	Writes a compound inequality to represent a set of real numbers shown on a number line
	Writes and solves a one-step linear inequality in one variable involving a real-world or mathematical context	Writes a multi-step linear inequality in one variable to represent a real-world or mathematical context
		Writes a multi-step rational inequality in one variable to represent a real-world or mathematical context
		Writes a one-step linear inequality in one variable to represent a real-world or mathematical context
		Writes a two-step linear inequality in one variable to represent a real-world or mathematical context
		Writes an inequality in the form $x > c$ or $x < c$ to represent a real-world or mathematical context
		Writes an inequality in the form $x > c$ or $x < c$ to represent a set of real numbers shown on a number line

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
		Writes and solves a one-step linear inequality in one variable involving a real-world or mathematical context
Linear Functions		
Compares the rate of change between two proportional relationships represented in different ways	Compares the rate of change between two proportional relationships represented in different ways	Compares the rate of change between two proportional relationships represented in different ways
Graphs a linear function of the form $y = mx$ given a simple scenario	Graphs a linear function of the form $y = mx$ given a simple scenario	Graphs the equation of a line in the form $y = mx$
Understands independent and dependent variables within a linear context	Understands that the slope is the same between any two points on a line	Understands that the slope is the same between any two points on a line
Writes an equation in the form $y = mx$ to represent the relationship between real-world quantities given a simple scenario	Writes an equation in the form $y = mx$ to represent the relationship between real-world quantities given a graph	Writes the equation of a line in standard form given a table of values or two ordered pairs
Writes an equation in the form $y = x + c$ to represent the relationship between real-world quantities given a table of values	Writes an equation in the form $y = mx$ to represent the relationship between real-world quantities given a simple scenario	Writes the equation of a line in the form $y = mx$ given a graph
Writes linear expressions in one variable to represent real-world or mathematical contexts	Writes an equation in the form $y = mx$ to represent the relationship between real-world quantities given a table of values or two ordered pairs	Writes the equation of a line in the form $y = mx$ given a table of values or two ordered pairs
	Writes linear expressions in one variable to represent real-world or mathematical contexts	
	Writes the equation of a line in standard form given a table of values or two ordered pairs	
Calculates the rate of change from a graph representing a real-world linear relationship	Calculates the initial value from a table or description of a real-world linear relationship	Calculates the initial value from a table or description of a real-world linear relationship
Calculates the rate of change from a table or description of a real-world linear relationship	Calculates the rate of change from a graph representing a real-world linear relationship	Calculates the rate of change from a table or description of a real-world linear relationship
Identifies the table of values given a graph of a linear relationship in the form $y = mx + b$	Calculates the rate of change from a table or description of a real-world linear relationship	Calculates the slope of a line given ordered pairs
Identifies the table of values given a verbal description of a nonproportional linear relationship	Compares the rate of change and intercepts between two nonproportional linear functions represented in different ways	Calculates the slope of a line on a graph
Interprets the meaning of the slope of a graph in a real-world linear relationship	Compares the rate of change and intercepts between two nonproportional linear functions represented in the same way	Compares the rate of change and intercepts between two nonproportional linear functions represented in different ways

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Translates between the graph of a piecewise linear function and a verbal description of the real-world relationship	Graphs a linear function of the form $y = mx + b$ given a table of values	Compares the rate of change and intercepts between two nonproportional linear functions represented in the same way
Writes an equation in the form $y = mx + b$ to represent the relationship between real-world quantities given the slope and y-intercept	Graphs the equation of a line in the form $y = mx + b$	Describes the effects that changes in the constant terms have on the graphs of linear functions
Writes the equation of a line in the form $y = mx + b$ given a table of values or two ordered pairs	Identifies an intercept of a graph of a linear function	Determines the y-intercept of a line given two points on the line
	Identifies the table of values given a graph of a linear relationship in the form $y = mx + b$	Graphs the equation of a line in the form $y = mx + b$
	Identifies the table of values given a verbal description of a nonproportional linear relationship	Illustrates the result of changes in the slope and y-intercept within a real-world linear relationship
	Interprets the meaning of the constant term in the equation $y = mx + b$ within the context of a real-world linear relationship	Interprets the meaning of the constant term in the equation $y = mx + b$ within the context of a real-world linear relationship
	Interprets the meaning of the slope of a graph in a real-world linear relationship	Interprets the meaning of the slope in the equation $y = mx + b$ within the context of a real-world linear relationship
	Interprets the meaning of the y-intercept of a graph within the context of a real-world linear relationship	Interprets the meaning of the slope of a graph in a real-world linear relationship
	Translates between the graph of a linear function and a verbal description of the real-world relationship	Interprets the meaning of the y-intercept of a graph within the context of a real-world linear relationship
	Translates between the graph of a piecewise linear function and a verbal description of the real-world relationship	Translates between the graph of a piecewise linear function and a verbal description of the real-world relationship
	Writes an equation in the form $y = mx + b$ to represent the relationship between real-world quantities given the slope and y-intercept	Understands that linear functions increase and decrease by equal differences over equal intervals
	Writes an equation in the form $y = mx + b$ to represent the relationship between real-world quantities given a simple scenario	Writes an equation in the form $y = mx + b$ to represent the relationship between real-world quantities given the slope and y-intercept
	Writes an equation in the form $y = mx + b$ to represent the relationship between real-world quantities given a table of values or two ordered pairs	Writes an equation in the form $y = mx + b$ to represent the relationship between real-world quantities given a table of values or two ordered pairs

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Writes an equation in the form $y = mx + b$ to represent the relationship between real-world quantities given the slope and a point on the line	Writes an equation in the form $y = mx + b$ to represent the relationship between real-world quantities given the slope and a point on the line
	Writes the equation of a line in the form $y = mx + b$ given a graph	Writes the equation of a line in the form $y = mx + b$ given a graph
	Writes the equation of a line in the form $y = mx + b$ given a table of values or two ordered pairs	Writes the equation of a line in the form $y = mx + b$ given a table of values or two ordered pairs
	Writes the equation representing transformations of linear functions, including the transformations $y = af(x)$, $y = f(ax)$, $y = f(x - a)$, and $y = f(x) + a$	

Number Sentences/Equations/Equivalence
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Determines whether a linear equation or inequality is true for a given value of the variable	Determines whether a linear equation or inequality is true for a given value of the variable	Applies the simple interest formula to solve for the interest rate, principal, or time invested
Solves cubic equations by taking cube roots	Evaluates formulas or linear equations at given values for the variables	Determines the number of solutions of a linear equation in one variable
Solves multi-step linear equations with positive and negative rational numbers	Solves cubic equations by taking cube roots	Evaluates formulas or linear equations at given values for the variables
Solves one-step linear equations with negative rational numbers	Solves multi-step linear equations with positive and negative rational numbers	Identifies an ordered pair that is a solution to a two-variable equation
Solves one-step linear equations with positive rational numbers	Solves one-step linear equations with negative rational numbers	Solves literal equations
Solves quadratic equations in one variable using factoring, the quadratic formula, or other appropriate method	Solves one-step linear equations with positive rational numbers	Solves multi-step linear equations with positive and negative rational numbers
Solves quadratic equations in the form $x^2 = c$	Solves quadratic equations in one variable using factoring, the quadratic formula, or other appropriate method	Solves one-step linear equations with positive rational numbers
Solves two-step linear equations with negative rational numbers	Solves quadratic equations in the form $x^2 = c$	Solves quadratic equations in one variable using factoring, the quadratic formula, or other appropriate method
Solves two-step linear equations with positive rational numbers	Solves radical equations that lead to linear equations	Solves quadratic equations in the form $x^2 = c$
Writes a one-step linear equation in one variable to represent a real-world or mathematical context	Solves two-step linear equations with negative rational numbers	Solves radical equations that lead to linear equations
Writes and solves a two-step linear equation in one variable involving a real-world or mathematical context	Solves two-step linear equations with positive rational numbers	Solves rational equations
	Writes a multi-step linear equation in one variable to represent a real-world or mathematical context	Solves two-step linear equations with negative rational numbers

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Writes a two-step linear equation in one variable to represent a real-world or mathematical context	Solves two-step linear equations with positive rational numbers
	Writes and solves a multi-step quadratic equation in one variable involving a real-world or mathematical context	Writes a multi-step linear equation in one variable to represent a real-world or mathematical context
	Writes and solves a one-step quadratic equation in the form $x^2 = c$ involving a real-world or mathematical context	Writes a quadratic equation in one variable to represent a real-world or mathematical context
	Writes and solves a two-step linear equation in one variable involving a real-world or mathematical context	Writes and solves a multi-step linear equation in one variable involving a real-world or mathematical context
	Writes and solves an exponential equation in one variable involving a real-world or mathematical context	Writes and solves a multi-step quadratic equation in one variable involving a real-world or mathematical context
	Writes the equation of a vertical line given a graph	Writes and solves a one-step quadratic equation in the form $x^2 = c$ involving a real-world or mathematical context
		Writes and solves a two-step linear equation in one variable involving a real-world or mathematical context
		Writes and solves an exponential equation in one variable involving a real-world or mathematical context
	Describes a situation that can be represented by a given linear equation	Describes a situation that can be represented by a given linear equation

Numerical Expressions		
Applies the order of operations, with grouping symbols and excluding exponents, to simplify numerical expressions involving positive rational numbers	Applies the order of operations, with grouping symbols and whole-number exponents, to simplify numerical expressions involving both positive and negative rational numbers	Applies the order of operations, with grouping symbols and whole-number exponents, to simplify numerical expressions involving both positive and negative rational numbers
Applies the order of operations, with grouping symbols and with whole-number exponents, to simplify numerical expressions consisting of positive rational numbers	Applies the order of operations, with grouping symbols and with whole-number exponents, to simplify numerical expressions consisting of positive rational numbers	Applies the order of operations, with whole-number exponents and excluding grouping symbols, to simplify numerical expressions involving both positive and negative rational numbers
Applies the order of operations, without grouping symbols and with whole-number exponents, to simplify numerical expressions consisting of positive rational numbers	Applies the order of operations, without grouping symbols and with whole-number exponents, to simplify numerical expressions consisting of positive rational numbers	Applies the order of operations, without grouping symbols and with whole-number exponents, to simplify numerical expressions consisting of positive rational numbers
Applies the order of operations, without grouping symbols or whole-number exponents, to simplify numerical expressions involving both positive and negative rational numbers	Applies the order of operations, without grouping symbols or whole-number exponents, to simplify numerical expressions involving positive rational numbers	Applies the order of operations, without grouping symbols or whole-number exponents, to simplify numerical expressions involving positive rational numbers

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Evaluates numerical expressions involving multiple operations with whole numbers and parentheses	Evaluates numerical expressions involving multiple operations with whole numbers, no parenthesis	Uses properties of exponents to simplify numerical expressions involving negative integer exponents, including zero
Represents descriptions of calculations with numerical expressions that include parentheses	Uses properties of exponents to simplify numerical expressions involving negative integer exponents, including zero	Uses properties of exponents to simplify numerical expressions involving whole-number exponents only
Uses properties of exponents to simplify numerical expressions involving whole-number exponents only	Uses properties of exponents to simplify numerical expressions involving whole-number exponents only	

Patterns/Sequences/Series

Determines missing values in a function table representing a nonproportional relationship, given the rule	Determines missing values in a function table representing a nonproportional relationship, given the rule	
Determines missing values in a function table representing a nonproportional relationship, rule not given	Determines missing values in a function table representing a nonproportional relationship, rule not given	
Analyzes and describes patterns without stating the rule	Determines the value of a term in a geometric sequence given a contextual situation	Determines the value of a term in a geometric sequence given a contextual situation
Creates or extends growing/shrinking shape patterns, given the rule	Determines the value of a term in an arithmetic sequence given a contextual situation	Determines the value of a term in an arithmetic sequence given a contextual situation
Creates or extends number patterns, given the rule	Writes an expression or formula for the n th term of an arithmetic sequence given a contextual situation	Writes an expression or formula for the n th term of an arithmetic sequence given a contextual situation
Determines the value of a term in a geometric sequence given a contextual situation		Writes an expression or formula for the n th term of an arithmetic sequence given a number sequence
Determines the value of a term in an arithmetic sequence given a contextual situation		

Piecewise/Absolute Value Functions

Interprets the meaning of the average rate of change of a graph in a real-world piecewise relationship	Calculates the rate of change of a piecewise function over a given interval	Calculates the rate of change of a piecewise function over a given interval
Translates between the graph of a piecewise linear function and a verbal description of the real-world relationship	Translates between the graph of a piecewise linear function and a verbal description of the real-world relationship	Describes the effects of transformations on the graphs of absolute value functions, including the transformations $y = af(x)$, $y = f(ax)$, $y = f(x - a)$, and $y = f(x) + a$
		Graphs absolute value functions
		Translates between the graph of a piecewise linear function and a verbal description of the real-world relationship

Properties and Operations of Functions

Determines the input of a function given an output	Determines the range of a function
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Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Determines the range of a function	Distinguishes between linear and nonlinear functions given an equation, a graph, or a table of values
	Performs operations with functions	Performs operations with functions

Properties and Relationships of Operations

Applies the distributive property of multiplication to whole numbers	Applies the distributive property of multiplication to whole numbers	
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Quadratic Functions

	Identifies the zeros of a quadratic function from a graph	Identifies the zeros of a quadratic function from a graph
Describes the effects that changes in the constant terms have on the graphs of quadratic functions	Describes the effects that changes in the constant terms have on the graphs of quadratic functions	Describes the effects that changes in the constant terms have on the graphs of quadratic functions
Writes a quadratic function given a table of values	Evaluates a quadratic function for a given value in its domain	Determines the maximum, minimum, y-intercept, or zeros of a quadratic function to solve real-world problems
	Identifies the vertex, intercepts, or axis of symmetry of a quadratic function given a graph	Determines the zeros of a quadratic function from a table of values
	Writes a quadratic function given a table of values	Evaluates a quadratic function for a given value in its domain
		Evaluates a quadratic function for a given value in its domain to solve a real-world problem
		Graphs quadratic functions
		Graphs transformations of quadratic functions, including the transformations $y = af(x)$, $y = f(ax)$, $y = f(x - a)$, and $y = f(x) + a$
		Identifies the table of values given a graph of a quadratic relationship
		Identifies the vertex, intercepts, or axis of symmetry of a quadratic function given a graph
		Writes a quadratic function given a table of values
		Writes the equation representing transformations of quadratic functions, including the transformations $y = af(x)$, $y = f(ax)$, $y = f(x - a)$, and $y = f(x) + a$

Radicals

	Evaluates the square root of a perfect square	Evaluates the square root of a perfect square
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Rate of Change/Slope

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Compares the rate of change between two proportional relationships represented in different ways	Compares the rate of change between two proportional relationships represented in different ways	Compares the rate of change between two proportional relationships represented in different ways
	Understands that the slope is the same between any two points on a line	Understands that the slope is the same between any two points on a line
Calculates the rate of change from a graph representing a real-world linear relationship	Calculates the rate of change from a graph representing a real-world linear relationship	Calculates the rate of change from a table or description of a real-world linear relationship
Calculates the rate of change from a table or description of a real-world linear relationship	Calculates the rate of change from a table or description of a real-world linear relationship	Calculates the rate of change of a piecewise function over a given interval
Interprets the meaning of the slope of a graph in a real-world linear relationship	Calculates the rate of change of a piecewise function over a given interval	Calculates the slope of a line given ordered pairs
	Compares the rate of change and intercepts between two nonproportional linear functions represented in different ways	Calculates the slope of a line on a graph
	Compares the rate of change and intercepts between two nonproportional linear functions represented in the same way	Compares the rate of change and intercepts between two nonproportional linear functions represented in different ways
	Interprets the meaning of the slope of a graph in a real-world linear relationship	Compares the rate of change and intercepts between two nonproportional linear functions represented in the same way
		Interprets the meaning of the slope in the equation $y = mx + b$ within the context of a real-world linear relationship
		Interprets the meaning of the slope of a graph in a real-world linear relationship

Rational Functions

Evaluates a rational function for a given value in its domain

Rational Numbers: Solve Real-World and Mathematical Problems

Solves real-world problems using appropriate problem-solving strategies and evaluates the reasonableness of the solutions

Solves real-world problems using appropriate problem-solving strategies and evaluates the reasonableness of the solutions

Scientific Notation

Converts a number from scientific notation to standard form

Converts a number from standard form to scientific notation

Approximates very large and very small quantities using scientific notation

Converts a number from standard form to scientific notation

Determines the relative magnitude of two numbers expressed in scientific notation

Converts a number from standard form to scientific notation

Multiplies and divides numbers expressed in scientific notation

Determines the relative magnitude of two numbers expressed in scientific notation

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Solves real-world problems with numbers expressed in scientific notation	Multiplies and divides numbers expressed in scientific notation Solves real-world problems with numbers expressed in scientific notation

System of Equations/Inequalities

Solves a system of linear equations graphically	Identifies an ordered pair that is a solution to a system of linear inequalities	Identifies an ordered pair that is a solution to a system of linear inequalities
Writes and solves a system of linear equations involving a real-world or mathematical context	Solves a system of linear equations algebraically	Shows the steps to solve a system of linear equations using linear combinations
	Solves a system of linear equations graphically	Solves a system of equations with one linear and one quadratic equation algebraically
	Writes a system of linear equations to represent a real-world or mathematical context	Solves a system of linear equations algebraically
	Writes a system of linear inequalities to represent a real-world or mathematical context	Writes a system of linear equations to represent a real-world or mathematical context
	Writes and solves a system of linear equations involving a real-world or mathematical context	Writes a system of linear inequalities to represent a real-world or mathematical context
		Writes and solves a system of linear equations involving a real-world or mathematical context

Trigonometric Functions/Radian Measure

Converts between radians and degrees

Whole Numbers: Multiplication/Division

Decomposes numbers to simplify whole-number multiplication

Whole Numbers: Represent and Solve Word Problems

Represents and solves word problems involving division of whole numbers where the quotient is a fraction	Represents and solves word problems involving division of whole numbers where the quotient is a fraction	Represents and solves word problems involving division of whole numbers where the quotient is a fraction
Represents multi-step word problems involving the four operations with expressions or equations, whole numbers	Represents multi-step word problems involving the four operations with expressions or equations, whole numbers	Represents multi-step word problems involving the four operations with expressions or equations, whole numbers

THE REAL AND COMPLEX NUMBER SYSTEMS

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Absolute Value: Concepts/Properties

Evaluates the absolute value of a number

Evaluates numerical expressions involving absolute value

Evaluates the absolute value of a number

Capacity

Completes complex conversions of customary units of capacity involving fractions, decimals, or more than two units

Completes simple conversions of customary units of capacity

Solves multi-step capacity word problems involving whole numbers and conversion of customary units

Completes complex conversions of customary units of capacity involving fractions, decimals, or more than two units

Completes complex conversions of customary units of capacity involving fractions, decimals, or more than two units

Completes conversions of metric units of capacity

Completes conversions of metric units of capacity

Completes simple conversions of customary units of capacity

Solves multi-step capacity word problems involving decimals or fractions and conversion of metric units

Conversion of Units

Completes complex conversions of customary units of capacity involving fractions, decimals, or more than two units

Completes complex conversions of customary units of length involving fractions, decimals, or more than two units

Completes complex conversions of more than two units of time

Completes conversions of metric units of mass

Completes simple conversions of customary units of capacity

Completes simple conversions of customary units of length

Completes simple conversions of customary units of weight

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
<p>Completes simple conversions of units of time</p> <p>Converts units of length between the customary and the metric systems</p> <p>Solves multi-step capacity word problems involving whole numbers and conversion of customary units</p> <p>Solves multi-step length word problems involving decimals or fractions and conversion of customary units</p> <p>Solves multi-step time word problems involving conversion across seconds, minutes, hours, etc.</p>	<p>Completes complex conversions of customary units of capacity involving fractions, decimals, or more than two units</p> <p>Completes complex conversions of customary units of length involving fractions, decimals, or more than two units</p> <p>Completes complex conversions of customary units of weight involving fractions, decimals, or more than two units</p> <p>Completes complex conversions of more than two units of time</p> <p>Completes conversions of metric units of capacity</p> <p>Completes conversions of metric units of mass</p> <p>Completes simple conversions of customary units of capacity</p> <p>Completes simple conversions of customary units of length</p> <p>Completes simple conversions of customary units of weight</p> <p>Converts units of length between the customary and the metric systems</p> <p>Converts units of speed</p>	<p>Completes complex conversions of customary units of capacity involving fractions, decimals, or more than two units</p> <p>Completes complex conversions of customary units of length involving fractions, decimals, or more than two units</p> <p>Completes complex conversions of customary units of weight involving fractions, decimals, or more than two units</p> <p>Completes complex conversions of more than two units of time</p> <p>Completes conversions of metric units of capacity</p> <p>Completes conversions of metric units of length</p> <p>Completes conversions of metric units of mass</p> <p>Converts unit rates to solve real-world problems</p> <p>Converts units of length between the customary and the metric systems</p> <p>Converts units of speed</p> <p>Solves multi-step capacity word problems involving decimals or fractions and conversion of metric units</p>

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Solves multi-step length word problems involving decimals or fractions and conversion of customary units	Solves multi-step length word problems involving decimals or fractions and conversion of customary units
	Solves multi-step length word problems involving whole numbers and conversion of customary units	Solves multi-step length word problems involving whole numbers and conversion of customary units
	Solves multi-step time word problems involving conversion across seconds, minutes, hours, etc.	Solves multi-step weight word problems involving whole numbers and conversion of customary units

Coordinate Geometry

Determines the coordinates of points in all four quadrants of a coordinate graph		
Determines the coordinates of points in the first quadrant of a coordinate plane		
Determines the distance between two points with the same first or second coordinate		
Plots points in all four quadrants of a coordinate plane		
	Determines the coordinates of points in all four quadrants of a coordinate graph	Determines the coordinates of points in all four quadrants of a coordinate graph
	Determines the distance between two points with the same first or second coordinate	Determines the distance between two points with the same first or second coordinate
	Plots points in all four quadrants of a coordinate plane	Plots points in all four quadrants of a coordinate plane

Decimals: Addition/Subtraction

Adds and subtracts decimals with a different number of digits after the decimal point, no regrouping		
Adds and subtracts decimals with different number of digits after the decimal point, with regrouping		
Adds and subtracts decimals with the same number of digits after the decimal point, with regrouping		
Subtracts decimals from whole numbers		
	Adds and subtracts decimals with a different number of digits after the decimal point, no regrouping	Adds and subtracts decimals with different number of digits after the decimal point, with regrouping
	Adds and subtracts decimals with different number of digits after the decimal point, with regrouping	
	Subtracts decimals from whole numbers	

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Decimals: Compare/Order

<p>Compares decimals to the hundredths, with a different number of digits after the decimal point, using terms</p> <p>Compares decimals to the thousandths, with a different number of digits after the decimal point, using symbols</p>	<p>Compares decimals to the hundredths, with a different number of digits after the decimal point, using symbols</p> <p>Compares decimals to the hundredths, with a different number of digits after the decimal point, using terms</p> <p>Compares decimals to the thousandths, with a different number of digits after the decimal point, using symbols</p> <p>Compares decimals to the thousandths, with a different number of digits after the decimal point, using terms</p> <p>Orders decimals to the hundredths, with a different number of digits after the decimal point</p> <p>Orders decimals to the thousandths, with the same number of digits after the decimal point</p>	<p>Compares decimals to the thousandths, with a different number of digits after the decimal point, using symbols</p> <p>Orders decimals to the thousandths, with a different number of digits after the decimal point</p>
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Decimals: Multiplication/Division
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<p>Divides decimals by whole numbers</p> <p>Multiplies decimals by decimals</p> <p>Multiplies decimals by multi-digit whole numbers</p> <p>Multiplies decimals by one-digit whole numbers</p> <p>Multiplies or divides decimals by 10, 100, or 1,000</p>	<p>Divides decimals by decimals</p> <p>Divides decimals by whole numbers</p> <p>Multiplies decimals by decimals</p> <p>Multiplies decimals by multi-digit whole numbers</p> <p>Multiplies or divides decimals by 10, 100, or 1,000</p>	<p>Divides decimals by decimals</p> <p>Multiplies decimals by decimals</p> <p>Multiplies decimals by multi-digit whole numbers</p> <p>Multiplies or divides decimals by 10, 100, or 1,000</p>
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Decimals: Represent and Solve Word Problems
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Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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<p>Estimates solutions to one-step word problems involving any of the four operations with decimals, including contexts involving money</p> <p>Solves multi-step word problems involving the four operations and decimals, including contexts involving money</p> <p>Solves one-step word problems involving addition and subtraction of decimals with a different number of digits after the decimal point</p> <p>Solves one-step word problems involving addition and subtraction of decimals with the same number of digits after the decimal point, including contexts involving money</p> <p>Solves one-step word problems involving multiplication of multi-digit whole numbers and decimals to the hundredths, including contexts involving money</p>	<p>Solves multi-step word problems involving the four operations and decimals, including contexts involving money</p> <p>Solves one-step word problems involving addition and subtraction of decimals with a different number of digits after the decimal point</p> <p>Solves one-step word problems involving multiplication of decimals by decimals to the hundredths, including contexts involving money</p> <p>Solves one-step word problems involving multiplication of multi-digit whole numbers and decimals to the hundredths, including contexts involving money</p>	<p>Solves multi-step word problems involving the four operations and decimals, including contexts involving money</p> <p>Solves one-step word problems involving addition and subtraction of decimals with a different number of digits after the decimal point</p> <p>Solves one-step word problems involving multiplication of multi-digit whole numbers and decimals to the hundredths, including contexts involving money</p>
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Decimals: Represent/Model

<p>Knows decimal place-value names through hundredths</p> <p>Locates decimals to the hundredths on a number line</p> <p>Represents decimals to the thousandths in word form</p>	<p>Knows decimal place-value names through hundredths</p>	
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Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Knows decimal place-value names through thousandths	
	Locates decimals to the hundredths on a number line	
	Represents decimals to the thousandths in expanded form	
	Represents decimals to the thousandths in word form	
	Represents decimals to the thousandths with models	

Exponents

Multiplies whole numbers by powers of 10 shown with exponents	Represents the value of digits in whole numbers using powers of 10 in exponential form	Represents the value of digits in whole numbers using powers of 10 in exponential form
		Uses properties of exponents to simplify algebraic expressions involving whole-number exponents

Fractions: Addition/Subtraction
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Adds and subtracts fractions with like denominators	Adds and subtracts fractions with denominators of 10 or 100	Adds and subtracts fractions with denominators of 10 or 100
Adds and subtracts fractions with like denominators using models other than number lines	Adds and subtracts fractions with like denominators	Adds and subtracts fractions with like denominators using a number line
Adds and subtracts fractions with unlike denominators	Adds and subtracts fractions with unlike denominators	Adds and subtracts fractions with unlike denominators
Adds and subtracts whole numbers, fractions, and/or mixed numbers with like denominators, no regrouping	Adds and subtracts whole numbers, fractions, and/or mixed numbers with like denominators, with regrouping	Adds and subtracts whole numbers, fractions, and/or mixed numbers with like denominators, with regrouping
	Adds and subtracts whole numbers, fractions, and/or mixed numbers with unlike denominators, no regrouping	Adds and subtracts whole numbers, fractions, and/or mixed numbers with unlike denominators, no regrouping

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Adds and subtracts whole numbers, fractions, and/or mixed numbers with unlike denominators, with regrouping	Adds and subtracts whole numbers, fractions, and/or mixed numbers with unlike denominators, with regrouping

Fractions: Compare/Order

Compares fraction models with like numerators or denominators using symbols		
Compares fraction models with unlike numerators and denominators using symbols		
Compares fractions with like numerators or denominators using words		
Compares fractions with unlike numerators and denominators using words		
Orders fractions with like numerators or denominators using models		
	Compares fraction models with unlike numerators and denominators using symbols	
	Compares fractions with like numerators or denominators using words	
	Compares fractions with unlike numerators and denominators using words	
	Orders fractions with unlike numerators and denominators using models	

Fractions: Equivalence

Converts between fractions with denominators of 10 and 100		
Divides two whole numbers given in the form of a fraction, with a whole number quotient		
Converts between mixed numbers and improper fractions		
Identifies equivalent fraction models		
Identifies fractions equivalent to whole numbers		
Writes equivalent fractions		
Writes equivalent fractions for given area or set models		
	Converts between mixed numbers and improper fractions	Writes equivalent fractions

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Identifies fractions equivalent to whole numbers	Writes equivalent fractions for given points on a number line
	Writes equivalent fractions	Writes fractions in simplest form
	Writes equivalent fractions for given area or set models	
	Writes fractions in simplest form	

Fractions: Multiplication/Division

Divides fractions by fractions, results in simplest form		
Understands that finding fractions of whole numbers is the same as finding their product		
	Divides fractions by fractions, results in simplest form	Divides fractions by fractions, results in simplest form
	Divides fractions by whole numbers, results in simplest form	Divides fractions by mixed numbers, results in simplest form
	Divides mixed numbers by fractions, results in simplest form	Divides fractions by whole numbers, results in simplest form
	Divides mixed numbers by mixed numbers, results in simplest form	Divides mixed numbers by fractions using models
	Divides two whole numbers with a quotient in the form of a fraction or a mixed number	Divides mixed numbers by fractions, results in simplest form
	Multiplies fractions by fractions, results in simplest form	Divides mixed numbers by mixed numbers, results in simplest form
	Multiplies fractions by whole numbers, results in simplest form	Divides mixed numbers by whole numbers, results in simplest form
	Multiplies fractions by whole numbers, results not in simplest form	Divides whole numbers by fractions using models
	Multiplies mixed numbers by fractions, results in simplest form	Divides whole numbers by fractions, results in simplest form
		Divides whole numbers by mixed numbers, results in simplest form
		Multiplies fractions by fractions, results in simplest form
		Multiplies mixed numbers by fractions, results in simplest form
		Multiplies mixed numbers by mixed numbers, results in simplest form
		Multiplies mixed numbers by whole numbers, results in simplest form

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
		Understands the effect of multiplying whole numbers by fractions less than 1

Fractions: Represent and Solve Word Problems

<p>Solves multi-step word problems involving addition and subtraction of fractions with like denominators</p> <p>Solves multi-step word problems involving addition and subtraction of fractions with unlike denominators</p> <p>Solves multi-step word problems involving whole numbers, fractions and/or mixed numbers</p> <p>Solves one-step word problems involving addition and subtraction of fractions with like denominators</p> <p>Solves one-step word problems involving addition and subtraction of fractions with like denominators using models</p> <p>Solves one-step word problems involving addition and subtraction of mixed numbers with unlike denominators</p> <p>Solves one-step word problems involving division of whole numbers by unit fractions</p> <p>Solves one-step word problems involving multiplication of whole numbers and either fractions or mixed numbers</p> <p>Solves one-step word problems involving multiplication of whole numbers and unit fractions</p> <p>Solves word problems about finding equivalent fractions</p>	<p>Solves multi-step word problems involving addition and subtraction of fractions with like denominators</p> <p>Solves multi-step word problems involving addition and subtraction of fractions with unlike denominators</p> <p>Solves multi-step word problems involving whole numbers, fractions and/or mixed numbers</p> <p>Solves one-step word problems involving addition and subtraction of fractions with unlike denominators</p> <p>Solves one-step word problems involving addition and subtraction of fractions with like denominators</p>	<p>Solves multi-step word problems involving addition and subtraction of fractions with unlike denominators</p> <p>Solves multi-step word problems involving whole numbers, fractions and/or mixed numbers</p> <p>Solves one-step word problems involving addition and subtraction of fractions with unlike denominators</p> <p>Solves one-step word problems involving addition and subtraction of mixed numbers with unlike denominators</p>
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Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Solves one-step word problems involving addition and subtraction of fractions with unlike denominators	Solves one-step word problems involving division of fractions or mixed numbers
	Solves one-step word problems involving addition and subtraction of mixed numbers with unlike denominators	Solves one-step word problems involving division of unit fractions by whole numbers
	Solves one-step word problems involving division of fractions or mixed numbers	Solves one-step word problems involving division of whole numbers by fractions or mixed numbers
	Solves one-step word problems involving division of unit fractions by whole numbers	Solves one-step word problems involving division of whole numbers by unit fractions
	Solves one-step word problems involving division of whole numbers by unit fractions	Solves one-step word problems involving multiplication of fractions or mixed numbers
	Solves one-step word problems involving multiplication of whole numbers and either fractions or mixed numbers	Solves one-step word problems involving multiplication of whole numbers and either fractions or mixed numbers
	Solves one-step word problems involving multiplication of whole numbers and unit fractions	

Fractions: Represent/Model

Locates mixed numbers on a number line

Locates non-unit proper fractions on a number line

Locates unit fractions on a number line

Locates mixed numbers on a number line

Locates improper fractions on a number line

Locates non-unit proper fractions on a number line

Locates mixed numbers on a number line

Locates non-unit proper fractions on a number line

Understands fractions as the division of the numerator by the denominator

Integers: Computation

Adds and subtracts integers

Multiplies and divides integers

Represents addition and subtraction of integers on a number line

Adds and subtracts integers

Adds and subtracts integers

Multiplies and divides integers

Multiplies and divides integers

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Performs multiple operations with integers	Performs multiple operations with integers
	Represents addition and subtraction of integers on a number line	Represents addition and subtraction of integers on a number line
	Understands subtracting an integer is the same as adding its opposite	Understands subtracting an integer is the same as adding its opposite

Length

Completes complex conversions of customary units of length involving fractions, decimals, or more than two units

Completes simple conversions of customary units of length

Converts units of length between the customary and the metric systems

Solves multi-step length word problems involving decimals or fractions and conversion of customary units

Completes complex conversions of customary units of length involving fractions, decimals, or more than two units

Completes simple conversions of customary units of length

Converts units of length between the customary and the metric systems

Solves multi-step length word problems involving decimals or fractions and conversion of customary units

Solves multi-step length word problems involving whole numbers and conversion of customary units

Completes complex conversions of customary units of length involving fractions, decimals, or more than two units

Completes conversions of metric units of length

Converts units of length between the customary and the metric systems

Solves multi-step length word problems involving decimals or fractions and conversion of customary units

Solves multi-step length word problems involving whole numbers and conversion of customary units

Linear Functions

Interprets a point on the graph of a real-world proportional relationship

Money

Determines possible coin combinations equivalent to a specific amount, given either coin names or a specified number of coins

Rounds dollars and cents

Solves multi-step money word problems involving decimals and coins and/or bills given as names

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	<p>Determines possible coin combinations equivalent to a specific amount, given either coin names or a specified number of coins</p> <p>Rounds dollars and cents</p> <p>Solves multi-step money word problems involving decimals and coins and/or bills given as names</p>	

Problem Solving with Units

<p>Solves multi-step capacity word problems involving whole numbers and conversion of customary units</p> <p>Solves multi-step length word problems involving decimals or fractions and conversion of customary units</p> <p>Solves multi-step time word problems involving conversion across seconds, minutes, hours, etc.</p> <p>Solves multi-step money word problems involving decimals and coins and/or bills given as names</p> <p>Solves multi-step money word problems involving whole numbers greater than 100</p>	<p>Solves multi-step length word problems involving decimals or fractions and conversion of customary units</p> <p>Solves multi-step length word problems involving whole numbers and conversion of customary units</p> <p>Solves multi-step time word problems involving conversion across seconds, minutes, hours, etc.</p> <p>Solves multi-step money word problems involving decimals and coins and/or bills given as names</p> <p>Solves multi-step money word problems involving whole numbers greater than 100</p>	<p>Solves multi-step capacity word problems involving decimals or fractions and conversion of metric units</p> <p>Solves multi-step length word problems involving decimals or fractions and conversion of customary units</p> <p>Solves multi-step length word problems involving whole numbers and conversion of customary units</p> <p>Solves multi-step weight word problems involving whole numbers and conversion of customary units</p>
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Properties and Relationships of Operations

<p>Decomposes numbers to simplify whole-number multiplication</p>		
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Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Identifies the missing value in an equation to show that a number and its opposite have a sum of 0

Understands division as equal sharing

Understands multiplication as a comparison of sizes

Understands the inverse relationship between addition and subtraction, whole numbers within 1,000

Understands the inverse relationship between multiplication and division

Understands that a number and its opposite are the same distance from 0 on a number line

Locates the additive inverse of a number on a number line

Locates the additive inverse of a number on a number line

Understands the additive inverse property

Understands the additive inverse property

Understands the inverse relationship between addition and subtraction, whole numbers within 1,000

Understands the effect of multiplying whole numbers by fractions less than 1

Rate of Change/Slope

Determines the coordinates of the point representing the unit rate on a graph of a proportional relationship

Identifies the unit rate from the graph of a proportional relationship

Determines the coordinates of the point representing the unit rate on a graph of a proportional relationship

Rates/Ratios/Proportions/Percents

Calculates percents of numbers

Calculates the percent one number is of another number

Calculates the whole when given a part and the percent

Compares unit rates within a real-world context

Converts between decimals and percents less than 100%

Converts between percents and ratios expressed verbally or in the form a:b

Determines equivalent ratios

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
<p>Determines missing values in a function table representing a proportional relationship, rule not given</p> <p>Identifies the part-to-part ratio between two quantities</p> <p>Identifies the part-to-whole ratio between two quantities</p> <p>Solves for a missing value in a proportion by basic reasoning with equivalent fractions</p> <p>Solves one-step percent problems within a real-world or mathematical context</p> <p>Solves real-world and mathematical problems using ratios or proportional reasoning</p> <p>Uses a given unit rate to solve a one-step real-world problem</p> <p>Uses ratios of whole numbers and decimals to calculate unit rates</p> <p>Uses ratios of whole numbers and fractions to calculate unit rates</p> <p>Uses ratios of whole numbers to calculate unit rates</p> <p>Uses tables to represent real-world relationships described by a given ratio</p> <p>Uses tables to represent real-world relationships described by a given unit rate</p> <p>Uses two given unit rates to solve a multi-step real-world problem</p>	<p>Calculates percents of numbers</p> <p>Calculates the percent one number is of another number</p> <p>Calculates the whole when given a part and the percent</p> <p>Compares unit rates within a real-world context</p> <p>Converts between decimals and percents less than 100%</p> <p>Converts between percents and ratios expressed verbally or in the form a:b</p>	<p>Calculates percents of numbers</p> <p>Calculates simple interest</p> <p>Calculates the percent one number is of another number</p> <p>Calculates the percent one number is of another number for percents greater than 100%</p> <p>Calculates the whole when given a part and the percent</p> <p>Compares unit rates within a real-world context</p>

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Determines equivalent ratios	Converts between decimals and percents less than 100%
	Determines the whole in a real-world percent problem given the part and the percent	Converts between percents and ratios expressed verbally or in the form a:b
	Identifies the part-to-part ratio between two quantities	Converts unit rates to solve real-world problems
	Identifies the part-to-whole ratio between two quantities	Determines equivalent ratios
	Solves for a missing value in a proportion by basic reasoning with equivalent fractions	Determines the whole in a real-world percent problem given the part and the percent
	Solves for a missing value in a proportion by taking a cross product	Identifies the part-to-part ratio between two quantities
	Solves multi-step percent problems within a real-world or mathematical context	Identifies the part-to-whole ratio between two quantities
	Solves one-step percent problems within a real-world or mathematical context	Solves for a missing value in a proportion by taking a cross product
	Solves real-world and mathematical problems using ratios or proportional reasoning	Solves multi-step percent problems within a real-world or mathematical context
	Uses a given unit rate to solve a multi-step real-world problem	Solves one-step percent problems within a real-world or mathematical context
	Uses a given unit rate to solve a one-step real-world problem	Solves real-world and mathematical problems using ratios or proportional reasoning
	Uses ratios of decimals to calculate unit rates	Solves real-world problems involving percent or fractional increase
	Uses ratios of whole numbers and decimals to calculate unit rates	Uses a given unit rate to solve a multi-step real-world problem
	Uses ratios of whole numbers and fractions to calculate unit rates	Uses a given unit rate to solve a one-step real-world problem
	Uses ratios of whole numbers to calculate unit rates	Uses ratios of decimals to calculate unit rates
	Uses tables to represent real-world relationships described by a given ratio	Uses ratios of fractions to calculate unit rates
	Uses tables to represent real-world relationships described by a given unit rate	Uses ratios of whole numbers and decimals to calculate unit rates
	Uses two given unit rates to solve a multi-step real-world problem	Uses ratios of whole numbers to calculate unit rates
	Writes a proportion to solve a real-world problem	Uses tables to represent real-world relationships described by a given ratio

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
		<p>Uses two given unit rates to solve a multi-step real-world problem</p> <p>Writes a proportion to solve a real-world problem</p>

Rational Numbers: Compare/Order
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Compares and orders integers		
Compares and orders positive and negative rational numbers	Compares and orders integers that represent quantities in a real-world context	Compares and orders positive and negative rational numbers
	Compares and orders positive and negative rational numbers	Writes or interprets verbal comparative statements for rational numbers within a real-world context
	Writes or interprets verbal comparative statements for rational numbers within a real-world context	

Rational Numbers: Computation

Adds and subtracts rational numbers, including combinations of positive or negative fractions, decimals, and integers	Adds and subtracts rational numbers, including combinations of positive or negative fractions, decimals, and integers	
		Multiplies rational numbers, including combinations of positive or negative fractions, decimals, and integers

Rational Numbers: Equivalence

Converts between decimals and percents less than 100%		
Converts between percents and fractions with denominators of 10 or 100		
Converts between percents and fractions with denominators other than 10 and 100		
Converts between percents and ratios expressed verbally or in the form a:b		
Determines equivalence between fractions, decimals, and percents		
Converts between decimals and fractions with denominators of 10 or 100		
Converts between decimals and fractions with denominators of 2, 4, or 5		
Converts fractions to decimals using long division		
	Converts between decimals and percents less than 100%	Converts between decimals and percents less than 100%

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Converts between percents and fractions with denominators of 10 or 100	Converts between percents and fractions with denominators other than 10 and 100
	Converts between percents and fractions with denominators other than 10 and 100	Converts between percents and ratios expressed verbally or in the form a:b
	Converts between percents and ratios expressed verbally or in the form a:b	
	Converts between decimals and fractions with a denominator of 1,000	Converts between decimals and fractions with a denominator of 3
	Converts between decimals and fractions with a denominator of 3	Converts between decimals and fractions with a denominator of 8
	Converts between decimals and fractions with a denominator of 8	Converts between decimals and fractions with denominators of 10 or 100
	Converts between decimals and fractions with denominators of 10 or 100	Converts between decimals and fractions with denominators of 2, 4, or 5
	Converts between decimals and fractions with denominators of 2, 4, or 5	Converts fractions to decimals using long division
	Converts fractions to decimals using long division	

Rational Numbers: Represent/Model

Locates integers on a number line		
Locates negative rational numbers on a number line		
	Locates negative rational numbers on a number line	Locates negative rational numbers on a number line

Rational Numbers: Solve Real-World and Mathematical Problems

Solves one-step percent problems within a real-world or mathematical context		
Solves real-world problems involving the addition and subtraction of integers		
	Determines the whole in a real-world percent problem given the part and the percent	Calculates simple interest
	Solves multi-step percent problems within a real-world or mathematical context	Determines the whole in a real-world percent problem given the part and the percent
	Solves one-step percent problems within a real-world or mathematical context	Solves multi-step percent problems within a real-world or mathematical context
		Solves one-step percent problems within a real-world or mathematical context
		Solves real-world problems involving percent or fractional increase

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Solves real-world problems involving the addition and subtraction of integers	Solves real-world problems involving the addition and subtraction of integers

Real/Complex Numbers: Computation

Adds and subtracts complex numbers

Real/Complex Numbers: Concepts/Properties

Approximates the value of an irrational number	Approximates the location of irrational numbers on a number line
Determines whether a real number is rational or irrational	Approximates the value of an irrational number
	Compares and orders real numbers
	Determines whether a real number is rational or irrational

Time

Completes complex conversions of more than two units of time

Completes simple conversions of units of time

Solves multi-step time word problems involving conversion across seconds, minutes, hours, etc.

Completes complex conversions of more than two units of time	Completes complex conversions of more than two units of time
Solves multi-step time word problems involving conversion across seconds, minutes, hours, etc.	

Weight/Mass

Completes conversions of metric units of mass

Completes simple conversions of customary units of weight

Completes complex conversions of customary units of weight involving fractions, decimals, or more than two units	Completes complex conversions of customary units of weight involving fractions, decimals, or more than two units
Completes conversions of metric units of mass	Completes conversions of metric units of mass
Completes simple conversions of customary units of weight	Solves multi-step weight word problems involving whole numbers and conversion of customary units

Whole Numbers and Decimals: Rounding/Estimation

Estimates solutions to multi-step word problems involving the four operations with whole numbers

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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<p>Estimates solutions to one-step word problems involving any of the four operations with decimals, including contexts involving money</p> <p>Estimates solutions to one-step word problems involving any of the four operations with whole numbers</p> <p>Rounds decimals to any decimal place value</p> <p>Rounds decimals to nearest whole number</p> <p>Rounds dollars and cents</p> <p>Rounds whole numbers greater than 1,000,000</p> <p>Rounds whole numbers within 1,000,000</p>	<p>Estimates solutions to multi-step word problems involving the four operations with whole numbers</p> <p>Rounds decimals to any decimal place value</p> <p>Rounds dollars and cents</p> <p>Rounds whole numbers greater than 1,000,000</p> <p>Rounds whole numbers within 1,000,000</p>	<p>Rounds decimals to any decimal place value</p>
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Whole Numbers: Addition/Subtraction
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<p>Adds whole numbers with sums within 1,000 using models</p>		
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Whole Numbers: Concepts/Properties

<p>Determines greatest common factors</p> <p>Identifies factors of numbers less than 100</p> <p>Solves real-world problems involving the least common multiple</p>	<p>Determines common factors</p> <p>Identifies factors of numbers less than 100</p> <p>Identifies prime and composite numbers</p> <p>Solves real-world problems involving the least common multiple</p>	<p>Solves real-world problems involving the least common multiple</p>
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Whole Numbers: Multiplication/Division

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
<p>Decomposes numbers to simplify whole-number multiplication</p> <p>Divides multi-digit whole numbers by one-digit divisors with no remainder using models</p> <p>Divides multi-digit whole numbers with three or more digits, with a remainder</p> <p>Divides multi-digit whole numbers with three or more digits, without a remainder</p> <p>Divides whole numbers up to four digits by one-digit divisors, without a remainder</p> <p>Divides whole numbers up to four digits by two-digit divisors, with a remainder</p> <p>Divides whole numbers up to four digits by two-digit divisors, without a remainder</p> <p>Divides whole numbers with more than four digits by two-digit divisors, without a remainder</p> <p>Multiplies multi-digit whole numbers</p> <p>Multiplies one-digit whole numbers by whole numbers with more than two digits</p> <p>Multiplies two-digit whole numbers by two-digit whole numbers</p>	<p>Divides multi-digit whole numbers with three or more digits, with a remainder</p> <p>Divides multi-digit whole numbers with three or more digits, without a remainder</p> <p>Divides two whole numbers with a quotient in the form of a fraction or a mixed number</p> <p>Divides whole numbers with more than four digits by two-digit divisors, without a remainder</p> <p>Multiplies multi-digit whole numbers</p> <p>Whole Numbers: Represent and Solve Word Problems</p> <p>Estimates solutions to multi-step word problems involving the four operations with whole numbers</p> <p>Solves multi-step multiplication and division word problems with whole numbers</p>	<p>Divides whole numbers with more than four digits by two-digit divisors, with a remainder</p> <p>Solves multi-step multiplication and division word problems with whole numbers</p>

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Solves multi-step word problems involving the four operations with whole numbers

Whole Numbers: Place Value

Decomposes whole numbers within 100 into tens and ones in multiple ways

Reads and writes whole numbers greater than 1,000,000 in word form

Reads and writes whole numbers within 1,000,000 in word form

Reads and writes whole numbers within 100,000 in expanded form

Understands patterns of zeros when multiplying by 10, 100, 1,000, etc.

Understands that the same digit, moved one place to the left, now represents 10 times the value

Decomposes whole numbers within 1,000 into hundreds, tens, and ones, in multiple ways

Represents the value of digits in whole numbers using powers of 10 in exponential form

Understands patterns of zeros when multiplying by 10, 100, 1,000, etc.

Understands that the same digit, moved one place to the left, now represents 10 times the value

Understands that the same digit, moved one place to the right, now represents 1/10 the value

Decomposes whole numbers within 1,000 into hundreds, tens, and ones, in multiple ways

Represents the value of digits in whole numbers using powers of 10 in exponential form

Understands that the same digit, moved one place to the left, now represents 10 times the value

Understands that the same digit, moved one place to the right, now represents 1/10 the value

Whole Numbers: Represent and Solve Word Problems

Estimates solutions to multi-step word problems involving the four operations with whole numbers

Estimates solutions to one-step word problems involving any of the four operations with whole numbers

Solves multi-step addition and subtraction word problems, whole numbers greater than 100

Solves multi-step addition and subtraction word problems, whole numbers within 100

Reinforce these skills & concepts**Develop these skills & concepts****Introduce these skills & concepts**

Solves multi-step multiplication and division word problems with whole numbers

Solves multi-step word problems involving the four operations with whole numbers

Solves one-step division word problems that require interpretation of remainders, whole numbers

Solves one-step division word problems with multi-digit whole numbers

Solves one-step division word problems, whole numbers with up to four-digit dividends and one-digit divisors, no remainders

Solves one-step multiplicative-comparison word problems, whole-number products within 100

GEOMETRY

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Angle Measurement		

Identifies/estimates angle measures

Knows the definition of an angle

Measures non-right angles using a protractor

Solves one-step word problems involving angles

Area		
Describes the effect on area when dimensions of a rectangle are changed	Describes the effect on area when dimensions of a rectangle are changed	Describes the effect on area when dimensions of a rectangle are changed
Determines side lengths given the area of rectangles	Determines the area of circles, given the formula	Describes the effect on area when dimensions of a triangle are changed
Determines the area of parallelograms, formula not provided	Determines the area of figures composed of polygons	Determines the area of circles, formula not provided
Determines the area of parallelograms, given the formula	Determines the area of parallelograms, formula not provided	Determines the area of figures composed of polygons
Determines the area of rectangles with whole number sides, given the formula	Determines the area of rectangles given the perimeter	Determines the area of figures composed of polygons and circles
Determines the area of rectangles with whole-number sides, formula not provided	Determines the area of rectangles with fractional sides, formula not provided	Determines the area of parallelograms, formula not provided
Determines the area of triangles, given the formula	Determines the area of rectangles with whole-number sides, formula not provided	Determines the area of rectangles given the perimeter
Solves problems involving areas of figures composed of polygons within a real-world or mathematical context	Determines the area of trapezoids, given the formula	Determines the area of rectangles with fractional sides, formula not provided
Solves problems involving areas of rectangles within a real-world or mathematical context	Determines the area of triangles, formula not provided	Determines the area of trapezoids, formula not provided
Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context	Determines the area of triangles, given the formula	Determines the area of triangles, formula not provided
	Determines the circumference given the area of a circle	Determines the area of triangles, given the formula
	Determines the perimeter of rectangles given the area	Determines the circumference given the area of a circle
	Determines the ratio between areas of scaled figures	Determines the perimeter of rectangles given the area
	Estimates the area of rectangles with whole-number sides, formula not provided	Determines the radius or diameter given the area of a circle

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Identifies the formula for the area of a circle	Determines the ratio between areas of scaled figures
	Solves problems involving areas of figures composed of polygons within a real-world or mathematical context	Solves area word problems involving whole numbers and tiling rectangles with non-unit squares
	Solves problems involving areas of rectangles within a real-world or mathematical context	Solves problems involving areas of figures composed of polygons within a real-world or mathematical context
	Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context	Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context
		Solves real-world and mathematical problems involving areas of quarter circles, semicircles, or three-quarter circles

Circles

Writes the equation of a circle given the center and radius	Solves problems involving inscribed angles on a diameter
	Uses properties of central and inscribed angles to solve problems involving circles
	Writes the equation of a circle given the center and radius

Congruence

Applies properties of congruent figures to determine a perimeter	Determines measures of corresponding angles in congruent figures
Determines measures of corresponding angles in congruent figures	Understands that rigid transformations preserve congruency
Understands that rigid transformations preserve congruency	

Conic Sections

Writes the equation of a circle given the center and radius	Writes the equation of a circle given the center and radius
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Coordinate Geometry

Determines the coordinates of missing vertices of geometric figures in the first quadrant given the coordinates of the other vertices	Determines the coordinates of missing vertices of geometric figures in the first quadrant given the coordinates of the other vertices	Determines the area of a triangle given the coordinates of the vertices
Determines the coordinates of missing vertices of geometric figures in the first quadrant given the other vertices plotted on the coordinate plane	Determines the coordinates of one endpoint of a line segment given the coordinates of the midpoint and the other endpoint	Determines the coordinates of one endpoint of a line segment given the coordinates of the midpoint and the other endpoint
Determines the coordinates of one endpoint of a line segment given the coordinates of the midpoint and the other endpoint	Determines the coordinates of the midpoint of a line segment	Determines the coordinates of the midpoint of a line segment

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
		Determines the perimeter or area of a rectangle given vertices with the same first or second coordinate
		Determines the distance between two points on the coordinate plane

Identification and Classification of 2-D Shapes

Identifies and names nonbasic shapes, such as trapezoids, hexagons, etc.	Identifies and names special triangles, such as acute, right, scalene, etc., given pictures
Identifies and names special triangles, such as acute, right, scalene, etc., given pictures	Knows definitions of special triangles, such as acute, right, scalene, etc.
Identifies properties of a 2-D shape, such as right angles, parallel sides, etc., given pictures	Knows properties of special triangles, such as acute, right, scalene, etc.
Knows definitions of special triangles, such as acute, right, scalene, etc.	
Knows properties of special triangles, such as acute, right, scalene, etc.	

Identification and Classification of 3-D Shapes

Describes polyhedrons based on the shapes of faces, and/or number of faces, edges, or vertices, without pictures given
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Length

Measures length, width, or height to the nearest quarter inch

Perimeter/Circumference

Determines side lengths given the perimeter of rectangles	Determines the area of rectangles given the perimeter	Determines the area of rectangles given the perimeter
Determines the circumference of circles, formula not provided	Determines the circumference given the area of a circle	Determines the circumference given the area of a circle
Determines the circumference of circles, given the formula	Determines the circumference of circles, formula not provided	Determines the circumference of circles, formula not provided
Determines the perimeter of basic polygons in which not all sides are labeled	Determines the circumference of circles, given the formula	Determines the circumference of circles, given the formula
Recognizes situations which describe perimeter	Determines the perimeter of complex figures in which not all sides are labeled	Determines the perimeter of rectangles given the area
Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context	Determines the perimeter of rectangles given the area	Determines the radius or diameter given the circumference of a circle
Solves problems involving perimeters of rectangles within a real-world or mathematical context	Determines the radius or diameter given the circumference of a circle	Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
	Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context	Solves problems involving perimeters of non-rectangular polygons within a real-world or mathematical context
	Solves problems involving perimeters of rectangles within a real-world or mathematical context	Solves problems involving perimeters of rectangles within a real-world or mathematical context

Points, Lines, Segments, Rays, and Angles

Identifies acute or obtuse angles	Identifies perpendicular lines involving real-world objects	Identifies perpendicular lines
Identifies perpendicular lines involving real-world objects		
Identifies points, lines, rays, line segments, and angles		

Problem Solving with Units

Solves elapsed time word problems involving either minutes crossing over an hour, or hours and/or minutes crossing over A.M. or P.M.	Solves elapsed time word problems involving either minutes crossing over an hour, or hours and/or minutes crossing over A.M. or P.M.	Solves area word problems involving whole numbers and tiling rectangles with non-unit squares
Solves problems involving areas of figures composed of polygons within a real-world or mathematical context	Solves problems involving areas of figures composed of polygons within a real-world or mathematical context	Solves problems involving areas of figures composed of polygons within a real-world or mathematical context
Solves problems involving areas of rectangles within a real-world or mathematical context	Solves problems involving areas of rectangles within a real-world or mathematical context	Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context
Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context	Solves problems involving both area and perimeter of rectangles within a real-world or mathematical context	Solves problems involving perimeters of non-rectangular polygons within a real-world or mathematical context
Solves problems involving perimeters of rectangles within a real-world or mathematical context	Solves problems involving perimeters of rectangles within a real-world or mathematical context	Solves problems involving perimeters of rectangles within a real-world or mathematical context
Solves problems involving volumes of rectangular prisms within a real-world or mathematical context	Solves problems involving volumes of rectangular prisms within a real-world or mathematical context	Solves problems involving volumes of rectangular prisms within a real-world or mathematical context
		Solves real-world and mathematical problems involving areas of quarter circles, semicircles, or three-quarter circles
		Uses the net of a prism to solve surface area problems within a real-world or mathematical context

Pythagorean Theorem

Uses the Pythagorean Theorem to calculate the length of a missing side of a right triangle	Determines the distance between two points on the coordinate plane
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Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
		Uses the Pythagorean Theorem to calculate the length of a missing side of a right triangle
		Uses the Pythagorean Theorem to solve real-world or mathematical problems

Rates/Ratios/Proportions/Percents

Applies scale factors to solve problems involving scale drawings of geometric figures	Applies scale factors to solve problems involving scale drawings of geometric figures	Applies scale factors to solve problems involving scale drawings of geometric figures
Applies scale factors to solve problems involving scale drawings, maps, and models	Applies scale factors to solve problems involving scale drawings, maps, and models	Applies scale factors to solve problems involving scale drawings, maps, and models
Applies the concept of density to solve problems involving area and volume	Applies the concept of density to solve problems involving area and volume	Applies the concept of density to solve problems involving area and volume
Determines scale factors in problems involving scale drawings of geometric figures	Determines scale factors in problems involving scale drawings of geometric figures	

Relationships involving Lines, Angles, and Polygons

Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles	Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles	Applies the Triangle Inequality Theorem
		Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles
Applies the Triangle Angle-Sum Theorem to determine the measure of an unknown angle	Applies the Triangle Angle-Sum Theorem to determine the measure of an unknown angle	Applies the Triangle Angle-Sum Theorem to determine the measure of an unknown angle
Recognizes that the sum of the interior angles of a triangle is 180 degrees	Recognizes that the sum of the interior angles of a triangle is 180 degrees	Applies the Triangle Exterior Angle Theorem to determine the measure of an unknown angle
Solves problems involving parallel lines cut by a transversal	Solves problems by applying multiple properties of angles, including interior and exterior angles of triangles; complementary, supplementary, and vertical angles; and angles created by perpendicular lines or parallel lines cut by a transversal	Recognizes that the sum of the interior angles of a triangle is 180 degrees
	Solves problems involving parallel lines cut by a transversal	Solves problems by applying multiple properties of angles, including interior and exterior angles of triangles; complementary, supplementary, and vertical angles; and angles created by perpendicular lines or parallel lines cut by a transversal
		Solves problems involving parallel lines cut by a transversal

Similarity

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Applies scale factors to solve problems involving scale drawings of geometric figures	Applies scale factors to solve problems involving scale drawings of geometric figures	Applies scale factors to solve problems involving scale drawings of geometric figures
Applies scale factors to solve problems involving scale drawings, maps, and models	Applies scale factors to solve problems involving scale drawings, maps, and models	Applies scale factors to solve problems involving scale drawings, maps, and models
Determines scale factors in problems involving scale drawings of geometric figures	Determines scale factors in problems involving scale drawings of geometric figures	
Applies properties of similar triangles to solve real-world problems involving indirect measurements	Applies properties of similar figures to determine a perimeter	Applies properties of similar figures to determine a perimeter
Determines lengths of corresponding sides in similar figures	Applies properties of similar triangles to solve real-world problems involving indirect measurements	Applies properties of similar triangles to solve real-world problems involving indirect measurements
	Determines lengths of corresponding sides in similar figures	Applies similarity postulates to identify corresponding sides and angles
	Identifies similar triangles using SAS or SSS	Applies similarity postulates to solve for missing lengths and angles
	Identifies the proportion of corresponding sides of similar figures	Determines lengths of corresponding sides in similar figures
		Identifies similar triangles using SAS or SSS
Spatial Concepts and Symmetry		
Identifies and creates nets for prisms	Identifies and creates nets for prisms	Identifies 3-D shapes using cross-sections
		Identifies the cross-sections of 3-D shapes
Surface Area		
	Determines the surface area of rectangular prisms or cubes, formula not provided	Determines the surface area of a prism given a net
		Determines the surface area of rectangular prisms or cubes, formula not provided
		Uses the net of a prism to solve surface area problems within a real-world or mathematical context
Time		
Solves elapsed time word problems involving either minutes crossing over an hour, or hours and/or minutes crossing over A.M. or P.M.	Solves elapsed time word problems involving either minutes crossing over an hour, or hours and/or minutes crossing over A.M. or P.M.	
Transformations		

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Describes a single transformation that will map one figure onto another on the coordinate plane	Describes a single transformation that will map one figure onto another on the coordinate plane	Describes a series of transformations that will map one figure onto itself on the coordinate plane
Determines the coordinates of the vertices of a polygon after a dilation or a series of dilations	Describes a single transformation that will map one figure onto itself, without the coordinate plane	Describes a single transformation that will map one figure onto another on the coordinate plane
Determines the coordinates of the vertices of a polygon after a translation or a series of translations	Describes the effects of dilation on lengths and angle measures	Describes a single transformation that will map one figure onto itself, without the coordinate plane
Determines the image of a polygon on a coordinate plane after a reflection or a series of reflections	Determines the coordinates of the vertices of a polygon after a dilation or a series of dilations	Describes a translation using coordinate notation
Determines the image of a polygon on a coordinate plane after a rotation or a series of rotations	Determines the coordinates of the vertices of a polygon after a reflection or a series of reflections	Describes the effects of dilation on lengths and angle measures
Identifies the degree of rotation that will map one figure onto another, without the coordinate plane	Determines the coordinates of the vertices of a polygon after a rotation or a series of rotations	Determines the coordinates of the vertices of a polygon after a dilation or a series of dilations
Understands that rigid transformations preserve congruency	Determines the image of a polygon on a coordinate plane after a reflection or a series of reflections	Determines the coordinates of the vertices of a polygon after a reflection or a series of reflections
	Determines the image of a translation represented in coordinate notation	Determines the coordinates of the vertices of a polygon after a rotation or a series of rotations
	Performs a series of translations, reflections, and rotations, without the coordinate plane	Determines the image of a polygon on a coordinate plane after a reflection or a series of reflections
	Understands that rigid transformations preserve congruency	Determines the image of a polygon on a coordinate plane after a series of translations, reflections, or rotations

Trigonometry

Represents the tangent of an angle as a ratio of sides in a right triangle

Determines the measure of an acute angle in a right triangle using a trigonometric table

Represents the cosine of an angle as a ratio of sides in a right triangle

Represents the sine of an angle as a ratio of sides in a right triangle

Represents the tangent of an angle as a ratio of sides in a right triangle

Uses sine, cosine, or tangent to determine the length of a side in a right triangle

Volume

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Determines the volume of figures by counting unit cubes	Determines the volume of a rectangular prism given a net	Describes the effect on volume when dimensions of a cylinder are changed
Determines the volume of rectangular prisms, formula not provided	Determines the volume of cylinders, given the formula	Describes the effect on volume when dimensions of a rectangular prism are changed
Identifies units for measuring volume	Determines the volume of pyramids, given the formula	Determines the volume of cylinders, formula not provided
Solves problems involving volumes of rectangular prisms within a real-world or mathematical context	Identifies units for measuring volume	Determines the volume of cylinders, given the formula
	Solves problems involving volumes of rectangular prisms within a real-world or mathematical context	Determines the volume of pyramids, given the formula
		Determines the volume of spheres, given the formula
		Solves problems involving volumes of rectangular prisms within a real-world or mathematical context

STATISTICS AND PROBABILITY

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Bivariate Data		
Approximates the line of best fit on a scatter plot	Approximates the line of best fit on a scatter plot	Analyzes linear trends in scatter plots to make predictions
Constructs scatter plots of bivariate data	Compares two sets of bivariate data to draw conclusions	Describes data in a scatter plot, including the interpretation of outliers and clusters
Describes data in a scatter plot, including the interpretation of outliers and clusters	Constructs scatter plots of bivariate data	Describes the correlation or association between two variables, including the direction and strength of linear and nonlinear relationships
Describes the correlation or association between two variables, including the direction and strength of linear and nonlinear relationships	Describes data in a scatter plot, including the interpretation of outliers and clusters	Determines a pair of quantitative variables that has either a positive, negative, or zero correlation
Determines whether two quantitative variables have a positive linear, negative linear, or zero association	Describes the correlation or association between two variables, including the direction and strength of linear and nonlinear relationships	Determines relative frequencies in a two-way frequency table
Distinguishes between linear and nonlinear relationships in scatter plots	Determines a pair of quantitative variables that has either a positive, negative, or zero correlation	Determines whether two quantitative variables have a positive linear, negative linear, or zero association
	Determines relative frequencies in a two-way frequency table	Determines whether two quantitative variables have a positive or negative nonlinear association
	Determines whether two quantitative variables have a positive linear, negative linear, or zero association	Estimates the slope of a line of best fit
	Interprets the meaning of the slope or y-intercept of a line of best fit or regression line	Interprets the meaning of the slope or y-intercept of a line of best fit or regression line
Data Analysis		
Identifies the median, quartiles, extreme values, and outliers from a box plot	Identifies the median, quartiles, extreme values, and outliers from a box plot	Compares the means and medians of related data sets represented in histograms
Reads and interprets data from a histogram	Solves word problems using data from line or dot plots with fractional scales	Compares the medians of related data sets represented numerically and in a line plot
Solves word problems using data from line or dot plots with fractional scales		Solves word problems using data from line or dot plots with fractional scales
		Represents the intersection, union, and complement of sets using a Venn diagram
Data Representation		
Constructs scatter plots of bivariate data	Constructs scatter plots of bivariate data	Represents data in histograms
Represents data in histograms	Represents data in histograms	

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Measures of Center and Spread (Variability)		
Determines the mean of a data set	Determines a missing value in a data set when the mean is known	Compares the means and medians of related data sets represented in histograms
Determines the median of a data set that is not ordered	Determines how the measures of center are affected with the addition or deletion of a data value, including outliers	Compares the medians of related data sets represented numerically and in a line plot
Determines the median of a data set that is ordered	Determines the mean of a data set	Determines a missing value in a data set when the mean is known
Determines the range of a data set	Determines the median of a data set that is not ordered	Determines how the measures of center are affected with the addition or deletion of a data value, including outliers
Identifies the median, quartiles, extreme values, and outliers from a box plot	Determines the range of a data set	Determines the median of a data set that is not ordered
	Identifies the median, quartiles, extreme values, and outliers from a box plot	Determines the range of a data set
Populations/Random Processes		
Analyzes data from samples to make inferences about populations	Analyzes data from samples to make inferences about populations	Analyzes data from samples to make inferences about populations
Identifies a sampling method that produces the most representative sample	Identifies a sampling method that produces the most representative sample	Identifies a sampling method that produces the most representative sample
		Writes proportions to make inferences about populations
Probability		
Describes the likelihood of compound events occurring	Describes the likelihood of compound events occurring	Determines conditional probabilities of events without replacement
Determines experimental probabilities of simple events	Determines conditional probabilities of events without replacement	Determines experimental probabilities of simple events
Determines marginal probabilities using a two-way frequency table	Determines experimental probabilities of simple events	Determines joint probabilities using a two-way frequency table
Determines the probability of the complement of an event	Determines joint probabilities using a two-way frequency table	Determines probabilities of compound independent events
Determines theoretical probabilities of simple events	Determines probabilities of compound independent events	Determines probabilities using geometric models
Makes predictions based on experimental probabilities of simple events	Determines the probability of the complement of an event	Determines theoretical probabilities of simple events
Makes predictions based on theoretical probabilities of simple events	Determines theoretical probabilities of simple events	Makes predictions based on experimental probabilities of simple events
Understands the concept of independence in situations	Makes predictions based on experimental probabilities of simple events	

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Writes proportions to make predictions based on experimental probabilities	Modifies sample space to change the probability of an event	
	Understands the concept of independence in situations	
Rates/Ratios/Proportions/Percents		
Writes proportions to make predictions based on experimental probabilities		Writes proportions to make inferences about populations
Sample Spaces		
Determines the sample space for more than two compound events using organized lists, tree diagrams, or charts	Determines the sample space for two compound events using organized lists, tree diagrams, or charts	
Determines the sample space for two compound events using organized lists, tree diagrams, or charts	Uses the Fundamental Counting Principle to determine the number of possible outcomes	
Uses the Fundamental Counting Principle to determine the number of possible outcomes		

MAP GROWTH READING LEARNING STATEMENTS

LITERARY TEXT: KEY IDEAS AND DETAILS

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Cause and Effect

Determines the cause of a situation or event in literary text Determines the effect of a situation or event in literary text	Determines the cause of a situation or event in literary text	
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Characterization

Analyzes dialogue to understand characters Compares or contrasts characters Describes character traits or attributes Distinguishes between main and supporting characters Explains character motivation Infers character feelings or thoughts Understands character relationships Understands how characters are developed or changed	Analyzes dialogue to understand characters Analyzes how setting affects characters Analyzes the effect of characterization Describes character traits or attributes Explains character motivation Infers character feelings or thoughts Understands character relationships Understands how characters are developed or changed	Analyzes dialogue to understand characters Analyzes how setting affects characters Analyzes the effect of characterization Describes character traits or attributes Explains character motivation Infers character feelings or thoughts Understands character relationships Understands how characters are developed or changed
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Inferences, Conclusions, Predictions

Draws conclusions from literary text Makes inferences about characters in literary text Makes inferences about plot in literary text Makes inferences about setting in literary text Makes inferences based on a title Makes inferences from literary text Makes inferences from poetry Makes predictions from literary text	Draws conclusions from literary text Makes inferences about characters in literary text Makes inferences about plot in literary text Makes inferences about setting in literary text Makes inferences based on a title Makes inferences from literary text Makes inferences from poetry Makes predictions from literary text	Draws conclusions from literary text Makes inferences about plot in literary text Makes inferences from poetry
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Locating Information

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Locates details about characters in literary text Locates details about events in literary text Locates details about plot in literary text Locates details about setting in literary text Locates details in poetry	Locates details about characters in literary text Locates details about events in literary text Locates details about plot in literary text Locates details about setting in literary text	Locates details about characters in literary text Locates details about plot in literary text
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Main or Central Idea, Topic, Titles
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Determines the central idea in literary text Identifies the best title for a literary text	Determines the central idea in literary text	Determines the central idea in literary text
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Plot

Analyzes conflict in literary text Identifies problem/conflict in literary text Identifies the resolution of conflict in literary text Identifies type of conflict in literary text	Analyzes conflict in literary text Analyzes how setting contributes to plot Identifies climax in literary text Identifies problem/conflict in literary text Identifies the resolution of conflict in literary text Identifies type of conflict in literary text	Analyzes conflict in literary text Analyzes how setting contributes to plot Identifies climax in literary text Identifies problem/conflict in literary text Identifies the resolution of conflict in literary text Identifies type of conflict in literary text
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Sequencing

Understands sequence in literary text	Understands sequence in literary text	Understands sequence in literary text
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Setting

Compares or contrasts setting across literary texts Draws conclusions about a setting based on a description Identifies details that reveal aspects of setting Identifies setting Recognizes description of setting	Analyzes how setting affects characters Analyzes how setting affects tone Analyzes how setting contributes to plot Compares or contrasts setting across literary texts Draws conclusions about a setting based on a description Identifies details that reveal aspects of setting Identifies setting Recognizes description of setting	Analyzes how setting affects characters Analyzes how setting contributes to plot Compares or contrasts setting across literary texts Draws conclusions about a setting based on a description Identifies setting Recognizes description of setting
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Summarizing, Paraphrasing

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Summarizes a sequence of events in literary text Summarizes literary text Summarizes poetry	Summarizes a sequence of events in literary text Summarizes literary text Summarizes poetry	Recognizes appropriate strategies for summarizing text Summarizes a dramatic excerpt Summarizes literary text Summarizes poetry

Supporting Details

<p>Determines details that support a stated idea in literary text Determines details that support an inference in literary text Determines details that support an inference in poetry Determines details that support the central idea in literary text</p> <p>Compares and contrasts ideas presented in multiple literary texts Identifies details that support the theme in literary text</p>	<p>Determines details that support a stated idea in literary text Determines details that support an inference in literary text Determines details that support an inference in poetry Determines details that support the central idea in literary text</p> <p>Compares and contrasts ideas presented in multiple literary texts Identifies details that support the theme in literary text</p>	<p>Determines details that support a stated idea in literary text Determines details that support an inference in literary text Determines details that support an inference in poetry Determines details that support the central idea in literary text</p> <p>Compares and contrasts ideas presented in multiple literary texts Identifies details that support the theme in literary text</p>
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Theme, Moral, Lesson

<p>Analyzes the development of a shared theme in multiple texts Determines a shared theme in multiple texts Determines the moral of a fable Determines the moral of a story Determines theme in literary text Determines theme in poetry</p>	<p>Analyzes the development of a shared theme in multiple texts Analyzes the development of theme in literary text Determines a shared theme in multiple texts Determines the moral of a fable Determines the moral of a story Determines theme in literary text Determines theme in poetry</p>	<p>Analyzes the development of a shared theme in multiple texts Analyzes the development of theme in literary text Analyzes the development of theme in poetry Determines a shared theme in multiple texts Determines the moral of a fable Determines the moral of a story Determines theme in literary text Determines theme in poetry</p>
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LITERARY TEXT: LANGUAGE, CRAFT, STRUCTURE

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Author's Craft: Figurative Language		
<p>Analyzes the effect of figurative language in literary nonfiction Analyzes the effect of figurative language in literary text Determines the meaning of a figurative phrase in literary text Identifies alliteration Identifies idiom Identifies metaphor Identifies onomatopoeia Identifies simile Identifies symbolism Interprets allusion in literary text Interprets extended metaphor in literary text Interprets idiom in literary text Interprets irony in literary text Interprets metaphor that makes a simple comparison to describe a concrete idea in literary text Interprets onomatopoeia in literary text Interprets simile in literary text Interprets symbolism in literary text Interprets the effect of repetition in literary text Interprets use of rhyme in poetry</p>	<p>Analyzes the effect of alliteration in literary text Analyzes the effect of figurative language in literary text Determines the meaning of a figurative phrase in literary text Identifies alliteration Identifies hyperbole Identifies idiom Identifies onomatopoeia Identifies paradox Identifies personification Identifies simile Identifies symbolism Interprets allusion in literary text Interprets extended metaphor in literary text Interprets extended metaphor in poetry Interprets hyperbole in literary text Interprets idiom in literary text Interprets irony in literary text Interprets metaphor that makes a complex comparison to describe an abstract idea in literary text Interprets onomatopoeia in literary text Interprets personification in literary text Interprets simile in literary text Interprets symbolism in literary text Interprets the effect of repetition in literary text</p>	
		<p>Analyzes the effect of figurative language in literary text Analyzes the effect of oxymoron Determines the meaning of a figurative phrase in literary text Identifies alliteration Identifies dialect Identifies hyperbole Identifies idiom Identifies irony Identifies onomatopoeia Identifies paradox Identifies simile Identifies symbolism Interprets allusion in literary text Interprets euphemism in literary text Interprets extended metaphor in literary text Interprets extended metaphor in persuasive text Interprets extended metaphor in poetry Interprets hyperbole in literary text Interprets idiom in literary text Interprets metaphor that makes a complex comparison to describe an abstract idea in literary text Interprets personification in literary text Interprets simile in literary text Interprets symbolism in literary text</p>
Author's Craft: Foreshadowing, Flashback		
<p>Identifies flashback in literary text Identifies flash-forward in literary text Identifies foreshadowing in literary text Understands how authors develop characters using flashback</p>	<p>Analyzes use of flashback in literary text Analyzes use of foreshadowing in literary text Identifies flashback in literary text Identifies foreshadowing in literary text Understands how authors develop characters using flashback</p>	

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Analyzes use of foreshadowing in literary text
 Identifies flashback in literary text
 Identifies foreshadowing in literary text

Author's Craft: Imagery, Description

Identifies imagery or description
 Understands that descriptions appeal to different senses

Identifies imagery or description
 Understands that descriptions appeal to different senses

Identifies imagery or description
 Understands that descriptions appeal to different senses

Author's Craft: Perspective, Attitude
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Determines narrator's attitude in literary text
 Determines speaker's attitude in poetry

Determines narrator's attitude in literary text
 Determines speaker's attitude in poetry
 Evaluates narrator's attitude in literary text to make an inference
 Identifies details that support narrator's viewpoint in literary text

Determines narrator's attitude in literary text
 Determines speaker's attitude in poetry
 Evaluates narrator's attitude in literary text to make an inference
 Identifies details that support narrator's viewpoint in literary text

Author's Craft: Persuasive and Rhetorical Techniques

Interprets extended metaphor in persuasive text

Author's Craft: Style, Voice, Tone, Mood

Analyzes how mood is conveyed in literary text
 Analyzes the effect of word choice in literary text
 Determines mood in literary text
 Determines mood in poetry

Analyzes how mood is conveyed in literary text
 Analyzes the effect of word choice in literary text
 Determines mood in literary text
 Determines mood in poetry
 Determines tone in literary text

Analyzes how setting affects mood

Analyzes how mood is conveyed in literary text
 Analyzes the effect of word choice in literary text
 Determines mood in literary text
 Determines mood in poetry
 Determines tone in literary text
 Understands what tone is in literary text

Analyzes use of suspense in literary text

Characteristics of Genre: Literary

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
<p>Distinguishes between text found in stories and poetry Identifies form or structure in poetry Understands characteristics of drama Understands characteristics of fiction Understands characteristics of legends Understands characteristics of myths Understands characteristics of poetry Understands characteristics of tall tales Understands terms that refer to structural elements in drama</p>	<p>Analyzes structure of a drama Analyzes use of stage directions Determines rhyme scheme in poetry Identifies form or structure in poetry Identifies stanzas in poetry Understands characteristics of drama Understands characteristics of fiction Understands characteristics of myths Understands characteristics of parodies Understands characteristics of realistic fiction Understands terms that refer to structural elements in drama</p>	<p>Analyzes form or structure of poetry Analyzes how the structure of a poem contributes to its meaning Analyzes use of stage directions Determines rhyme scheme in poetry Identifies form or structure in poetry Identifies stanzas in poetry Understands characteristics of drama Understands characteristics of fiction Understands terms that refer to structural elements in drama</p>

Dialogue

<p>Analyzes how dialogue advances plot in literary text</p>	<p>Analyzes how dialogue advances plot in literary text Analyzes use of dialogue in literary text Identifies dialogue as the primary structure of a literary text</p>	<p>Analyzes how dialogue advances plot in literary text Analyzes use of dialogue in literary text Identifies dialogue as the primary structure of a literary text</p>
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Plot

<p>Analyzes how dialogue advances plot in literary text</p>	<p>Analyzes how dialogue advances plot in literary text Identifies events that lead to resolution of problem/conflict Understands development of plot in literary text Understands terms commonly used to describe plot</p>	<p>Analyzes climax in literary text Analyzes how dialogue advances plot in literary text Analyzes use of suspense in literary text Identifies exposition in literary text Understands development of plot in literary text Understands terms commonly used to describe plot</p>
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Point of View

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
<p>Analyzes the effect of narrator's point of view Identifies the narrator in literary text Predicts how a story would differ if told from another point of view Recognizes first-person point of view Understands how first-person and third-person narratives differ</p>	<p>Analyzes how an author develops characters with differing points of view Analyzes the effect of narrator's point of view Predicts how a story would differ if told from another point of view Recognizes different types of third-person point of view Recognizes third-person point of view</p>	<p>Analyzes the effect of narrator's point of view Describes how an ironic point of view affects meaning Describes the technique an author uses to develop point of view Predicts how a story would differ if told from another point of view Recognizes third-person point of view</p>

Purpose		
<p>Determines specific purpose of literary text</p>	<p>Determines specific purpose of literary text</p>	<p>Determines specific purpose of literary text</p>

Setting		
<p>Analyzes how setting affects mood</p>		

Supporting Details		
<p>Identifies details that support narrator's viewpoint in literary text</p>		
<p>Identifies details that support narrator's viewpoint in literary text</p>		

Text Features, Visuals		
<p>Understands the purpose of varied typeface in literary text</p>		
<p>Analyzes how images contribute to meaning or tone in literary text</p>		

Text Structure: Organization		
<p>Identifies form or structure in poetry</p>	<p>Analyzes structure of a drama Identifies form or structure in poetry</p>	
<p>Analyzes form or structure of poetry Identifies form or structure in poetry</p>		

INFORMATIONAL TEXT: KEY IDEAS AND DETAILS

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Assertions and Claims

Compares and contrasts claims in multiple argumentative texts

Compares and contrasts claims in multiple argumentative texts
Compares and contrasts viewpoints in multiple informational texts
Determines how an author organizes claims

Compares and contrasts claims in multiple argumentative texts
Compares and contrasts viewpoints in multiple informational texts
Determines how an author organizes claims

Author's Craft: Perspective, Attitude

Determines the difference in focus of two informational texts on the same topic

Cause and Effect

Determines the cause of a situation or event in informational text
Determines the cause of a situation or event in literary nonfiction

Determines the cause of a situation or event in informational text
Determines the cause of a situation or event in literary nonfiction

Determines the effect of a situation or event in informational text

Determines the cause of a situation or event in literary nonfiction

Characteristics of Genre: Literary Nonfiction

Determines how an autobiographical account is different from a biographical account

Facts and Opinions

Distinguishes fact from opinion in advertising
Distinguishes fact from opinion in informational text

Distinguishes fact from opinion in informational text

Distinguishes fact from opinion in informational text

Following Directions

Locates information in a set of directions
Understands sequence in a set of directions

Locates information in a set of directions

Inferences, Conclusions, Predictions

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
<p>Draws conclusions based on multiple informational texts Draws conclusions from informational text Draws conclusions from procedural or technical text Infers sequence in informational text Makes inferences about the author of informational text Makes inferences from a set of directions Makes inferences from definitions Makes inferences from informational text Makes inferences from literary nonfiction Makes predictions from informational text Makes predictions from literary nonfiction</p> <p>Analyzes implicit relationships between ideas in informational text Compares and contrasts ideas described in informational text</p>	<p>Draws conclusions based on multiple informational texts Draws conclusions from informational text Draws conclusions from literary nonfiction Draws conclusions from procedural or technical text Makes inferences from definitions Makes inferences from informational text Makes inferences from literary nonfiction</p> <p>Analyzes implicit relationships between ideas in informational text Compares and contrasts ideas described in informational text</p>	<p>Draws conclusions from informational text Draws conclusions from procedural or technical text Makes inferences from informational text Makes inferences from literary nonfiction</p> <p>Compares and contrasts ideas described in informational text</p>

Locating Information

<p>Locates details in an advertisement Locates details in informational text Locates details in literary nonfiction Locates information in a set of directions Locates information in charts or graphs Locates information in maps or timelines</p> <p>Compares and contrasts details in multiple informational texts</p>	<p>Locates details in literary nonfiction Locates information in a set of directions</p> <p>Compares and contrasts details in multiple informational texts</p>
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Main or Central Idea, Topic, Titles

<p>Analyzes how details shape a central idea in literary nonfiction Analyzes the development of a central idea in informational text Determines main idea in informational text Determines main idea in literary nonfiction Determines main idea in persuasive text Determines the main idea of publicity materials or public service announcements Determines the topic of a book from its title Determines two or more main ideas in informational text Identifies a title that reflects main idea in informational text</p>	<p>Analyzes how details shape a central idea in literary nonfiction Analyzes the development of a central idea in informational text Analyzes the development of a central idea in literary nonfiction Determines main idea in informational text Determines main idea in literary nonfiction Determines main idea in persuasive text Determines the main idea of publicity materials or public service announcements Determines two or more main ideas in informational text</p>
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Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
		Analyzes the development of a central idea in informational text Determines main idea in informational text Determines main idea in literary nonfiction Determines two or more main ideas in informational text

Sequencing

Determines logical order of ideas or events in informational text Identifies words that indicate sequence or order in informational text Understands sequence in a set of directions Understands sequence in informational text
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Summarizing, Paraphrasing

Paraphrases text Summarizes a sequence of events in informational text Summarizes informational text Summarizes literary nonfiction Summarizes political speech	Paraphrases text Summarizes a sequence of events in informational text Summarizes informational text Summarizes political speech Synthesizes information found in multiple informational texts	Summarizes informational text Summarizes political speech
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Supporting Details

Determines details that support a claim in informational text Determines details that support a prediction or conclusion in informational text Determines details that support a stated idea in informational text Determines details that support a stated idea in literary nonfiction Determines details that support an inference in informational text Determines details that support an inference in literary nonfiction Identifies details that support main idea in informational text	Determines details that support a concept presented in informational text Determines details that support a prediction or conclusion in informational text Determines details that support a stated idea in literary nonfiction Determines details that support an inference in informational text Determines details that support an inference in literary nonfiction Identifies details that support main idea in informational text	Determines details that support a stated idea in literary nonfiction Determines details that support an inference in literary nonfiction
Analyzes the technique and details an author uses to develop an event, concept, or characterization in informational text Determines details that support a claim in informational text Determines details that support a prediction or conclusion in informational text	Analyzes the technique and details an author uses to develop an event, concept, or characterization in informational text	Analyzes the technique and details an author uses to develop an event, concept, or characterization in informational text

Theme, Moral, Lesson

Reinforce these skills & concepts

Develop these skills & concepts

Introduce these skills & concepts

Determines theme in literary nonfiction

INFORMATIONAL TEXT: LANGUAGE, CRAFT, STRUCTURE

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
Alphabetic Concepts		
		Understands the use of guide words in reference materials
Assertions and Claims		
Evaluates evidence used to support claims in argumentative text Evaluates evidence used to support claims in informational text Identifies evidence that supports a claim in argumentative text Identifies evidence that supports a statement in informational text Identifies reasons that support a claim in persuasive text	Analyzes inadequately supported claims in argumentative text Evaluates evidence used to support claims in argumentative text Evaluates evidence used to support claims in informational text Evaluates the validity of information in informational text Evaluates validity of reasoning in argumentative text Identifies evidence that supports a claim in argumentative text Identifies evidence that supports a statement in informational text Identifies reasons that support a claim in persuasive text Recognizes when assertions are stated as generalizations	Analyzes inadequately supported claims in argumentative text Evaluates evidence used to support claims in argumentative text Evaluates validity of reasoning in argumentative text Identifies evidence that supports a claim in argumentative text Identifies evidence that supports a statement in informational text Identifies reasons that support a claim in persuasive text Recognizes when assertions are stated as generalizations
Author's Craft: Figurative Language		
Interprets metaphor in informational text	Analyzes the effect of figurative language in informational text Determines the meaning of a figurative phrase in informational text Identifies metaphor Interprets irony in informational text	Analyzes the effect of figurative language in informational text Analyzes the effect of figurative language in literary nonfiction Interprets allusion in informational text Interprets idiom in informational text
Author's Craft: Perspective, Attitude		
Determines author's assumption about audience Determines author's attitude in a letter Determines author's attitude in informational text Determines author's attitude in persuasive text Determines the difference in focus of two informational texts on the same topic Understands how an author conveys attitude or perspective in informational text	Analyzes informational text for evidence of bias or stereotypes Determines author's assumption about audience Determines author's attitude in a letter Determines author's attitude in informational text Determines author's attitude in persuasive text Determines the difference in focus of two informational texts on the same topic Evaluates author's attitude in informational text to make an inference Recognizes a stereotype in advertising Understands how an author conveys attitude or perspective in informational text	Analyzes argumentative text for evidence of bias Analyzes informational text for evidence of bias or stereotypes Determines author's attitude in a letter Determines author's attitude in informational text Determines author's attitude in persuasive text Determines the difference in focus of two informational texts on the same topic Evaluates author's attitude in informational text to make an inference
Author's Craft: Persuasive and Rhetorical Techniques		
Analyzes how word choice or rhetorical techniques advance purpose Analyzes language used to convey messages in advertising Analyzes persuasive technique used in a speech Determines general persuasive technique used in advertising Recognizes assumptions about audience in advertising	Analyzes how word choice or rhetorical techniques advance purpose Analyzes language used to convey messages in advertising Analyzes persuasive technique used in a speech Determines general persuasive technique used in advertising Identifies rhetorical technique used to introduce a claim Recognizes assumptions about audience in advertising Recognizes sarcasm Recognizes the use of rhetorical question	Analyzes how word choice or rhetorical techniques advance purpose Analyzes language used to convey messages in advertising Analyzes persuasive technique used in a speech Determines general persuasive technique used in advertising Evaluates author's acknowledgement of counterarguments Recognizes the use of rhetorical question

Reinforce these skills & concepts			Develop these skills & concepts			Introduce these skills & concepts		
Analyzes techniques used by an author to illustrate or emphasize ideas			Analyzes techniques used by an author to illustrate or emphasize ideas			Analyzes techniques used by an author to illustrate or emphasize ideas		
Author's Craft: Style, Voice, Tone, Mood								
Analyzes the effect of word choice on meaning Determines tone in informational text			Analyzes the effect of word choice on meaning Determines tone in informational text			Analyzes the effect of word choice on meaning Determines tone in informational text		
Characteristics of Genre: Informational								
Classifies text as informational Understands characteristics of nonfiction Understands purpose of informational and reference materials			Classifies text as informational Understands purpose of informational and reference materials			Understands the use of guide words in reference materials		
Characteristics of Genre: Literary Nonfiction								
Understands characteristics of speeches								
Characteristics of Genre: Persuasive, Argumentative								
Analyzes language used to convey messages in advertising Analyzes persuasive technique used in a speech Recognizes assumptions about audience in advertising Understands main message or claim in advertising			Analyzes language used to convey messages in advertising Analyzes persuasive technique used in a speech Identifies rhetorical technique used to introduce a claim Recognizes a stereotype in advertising Recognizes assumptions about audience in advertising Understands main message or claim in advertising			Analyzes language used to convey messages in advertising Analyzes persuasive technique used in a speech		
Inferences, Conclusions, Predictions								
Determines intended audience in advertising			Determines intended audience of informational text Evaluates author's attitude in informational text to make an inference			Evaluates author's attitude in informational text to make an inference		
Purpose								
Analyzes how word choice or rhetorical techniques advance purpose Determines specific purpose of a literary nonfiction passage Determines specific purpose of an announcement Determines specific purpose of an informational passage Recognizes when the general purpose of a passage is to inform Recognizes when the general purpose of a passage is to persuade			Analyzes how word choice or rhetorical techniques advance purpose Determines specific purpose of a letter Determines specific purpose of a persuasive passage Determines specific purpose of an announcement Determines specific purpose of an informational passage Recognizes when the general purpose of a passage is to inform Recognizes when the general purpose of a passage is to persuade			Analyzes how word choice or rhetorical techniques advance purpose Determines specific purpose of a persuasive passage Determines specific purpose of an announcement Determines specific purpose of an informational passage Recognizes when the general purpose of a passage is to persuade		
Determines specific purpose of a subsection in informational text Understands purpose of informational and reference materials			Determines specific purpose of a subsection in informational text Understands purpose of informational and reference materials					
Sequencing								
Identifies words that indicate sequence or order in informational text								
Supporting Details								

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Determines details that support a claim in informational text	Determines details that support a claim in informational text	
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Text Features, Visuals		
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Analyzes how text features support ideas in the text Analyzes information in maps Analyzes information in Venn diagrams or other graphic organizers Determines specific purpose of a graphic Interprets information in charts or graphs Locates information in indices or appendices Locates information in tables of contents Understands the purpose of a glossary Understands the purpose of a sidebar Understands the purpose of a title Understands the purpose of headings Understands the purpose of subheadings Understands the purpose of varied typeface in informational text	Analyzes how text features support ideas in the text Analyzes information in maps Analyzes information in timelines Determines specific purpose of a graphic Evaluates the effectiveness of graphics Identifies a caption Identifies a subheading Interprets information in charts or graphs Locates information in indices or appendices Locates information in tables of contents Understands the purpose of a glossary Understands the purpose of a sidebar Understands the purpose of subheadings Understands the purpose of varied typeface in informational text	Analyzes information in maps Analyzes information in timelines Determines specific purpose of a graphic Evaluates information in charts or graphs Understands the purpose of a sidebar
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Text Structure: Organization		
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Analyzes the use of a chronology structure in informational text Analyzes the use of a compare-contrast structure in informational text Compares and contrasts organizational structure in multiple texts Determines specific purpose of a subsection in informational text Identifies cause-effect as a structure in informational text Identifies compare-contrast as a structure in informational text Identifies process as a structure in informational text	Analyzes how specific sentences contribute to meaning in informational text Analyzes the use of a cause-effect structure in informational text Analyzes the use of a chronology structure in informational text Analyzes the use of a compare-contrast structure in informational text Analyzes the use of a problem-solution structure in informational text Compares and contrasts organizational structure in multiple texts Determines specific purpose of a subsection in informational text Determines the relationship between two parts of a historical document Identifies cause-effect as a structure in informational text Identifies description as a structure in informational text Identifies process as a structure in informational text	Analyzes how specific sentences contribute to meaning in informational text Analyzes the effect of multiple structures in informational text Analyzes the use of a cause-effect structure in informational text Analyzes the use of a chronology structure in informational text Analyzes the use of a compare-contrast structure in informational text Analyzes the use of a problem-solution structure in informational text Identifies cause-effect as a structure in informational text Identifies chronology as a structure in informational text Identifies problem-solution as a structure in informational text
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VOCABULARY: ACQUISITION AND USE

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
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Academic and Content Vocabulary

Identifies words or phrases in context that show a comparison Identifies words or phrases that show a contrast Uses context in a grade 07 passage to determine the meaning of academic vocabulary Uses context to determine the meaning of academic words or phrases in informational text Uses context to determine the meaning of domain-specific words or phrases in informational text

Identifies words or phrases in context that show a comparison Uses context to determine the meaning of academic words or phrases in informational text Uses context to determine the meaning of domain-specific words or phrases in informational text

Uses context to determine the meaning of academic words or phrases in informational text Uses context to determine the meaning of domain-specific words or phrases in informational text

Base Words, Affixes

Applies knowledge of Greek or Latin roots to determine the meaning of a word in the 6-8 grade band Applies knowledge of Greek or Latin roots to determine the meaning of a word in the 9-12 grade band Identifies the meaning of common Greek and Latin roots Understands how the prefix en- or in- changes the meaning of a word Understands how the prefix inter- changes the meaning of a word Understands how the prefix pre- changes the meaning of a word Understands how the suffix -able or -ible changes the meaning of a word Understands how the suffix -less or -ful changes the meaning of a word Understands the meaning of the combining form centi- Understands the meaning of the combining form -logy Understands the meaning of the combining form mon- or mono- Uses a defined affix as a clue to the meaning of a word Uses definitions of roots and affixes to determine word meaning Uses definitions to determine the meaning of Latin and Greek roots

Applies knowledge of Greek or Latin roots to determine the meaning of a word in the 6-8 grade band Applies knowledge of Greek or Latin roots to determine the meaning of a word in the 9-12 grade band Identifies the meaning of common Greek and Latin roots Understands how the prefix inter- changes the meaning of a word Understands the meaning of the combining form alti- Uses a defined affix as a clue to the meaning of a word Uses definitions of roots and affixes to determine word meaning

Applies knowledge of Greek or Latin roots to determine the meaning of a word in the 9-12 grade band Identifies the meaning of common Greek and Latin roots Understands how the prefix inter- changes the meaning of a word

Context Clues: Unknown and Multiple-Meaning Words

Reinforce these skills & concepts

Determines which meaning of a multiple-meaning word in the 2-5 grade band fits a given context
 Determines which meaning of a multiple-meaning word in the 6-8 grade band fits a given context
 Identifies words or phrases in context that introduce or signal an example
 Identifies words or phrases in context that signal a definition
 Identifies words or phrases that provide paragraph-level context for a word
 Identifies words or phrases that provide sentence-level context for a word
 Uses context and dictionary or thesaurus entries to determine word meaning
 Uses context in a grade 05 passage to determine the meaning of above grade 05 vocabulary
 Uses context in a grade 05 passage to determine the meaning of multiple-meaning vocabulary
 Uses context in a grade 06 passage to determine the meaning of above grade 06 vocabulary
 Uses context in a grade 06 passage to determine the meaning of multiple-meaning vocabulary
 Uses context in a grade 07 passage to determine the meaning of above grade 07 vocabulary
 Uses context in a grade 08 passage to determine the meaning of above grade 08 vocabulary
 Uses context in a grade 08 passage to determine the meaning of multiple-meaning vocabulary
 Uses context in a grade 09 passage to determine the meaning of above grade 09 vocabulary
 Uses context in a grade 09 passage to determine the meaning of multiple-meaning vocabulary
 Uses context in a grade 10 passage to determine the meaning of above grade 10 vocabulary
 Uses context in a grade 10 passage to determine the meaning of multiple-meaning vocabulary
 Uses context to determine the meaning of a phrase
 Uses context to determine the meaning of words in the 2-5 grade band
 Uses context to determine the meaning of words in the 6-8 grade band
 Uses context to determine the meaning of words in the 9-12 grade band

Develop these skills & concepts

Determines which meaning of a multiple-meaning word in the 6-8 grade band fits a given context
 Determines which meaning of a multiple-meaning word in the 9-12 grade band fits a given context
 Identifies words or phrases that provide paragraph-level context for a word
 Uses context in a grade 06 passage to determine the meaning of above grade 06 vocabulary
 Uses context in a grade 06 passage to determine the meaning of multiple-meaning vocabulary
 Uses context in a grade 07 passage to determine the meaning of above grade 07 vocabulary
 Uses context in a grade 08 passage to determine the meaning of above grade 08 vocabulary
 Uses context in a grade 10 passage to determine the meaning of above grade 10 vocabulary
 Uses context in a grade 12 passage to determine the meaning of above grade 12 vocabulary
 Uses context to determine the meaning of words in the 6-8 grade band
 Uses context to determine the meaning of words in the 9-12 grade band

Introduce these skills & concepts

Determines which meaning of a multiple-meaning word in the 9-12 grade band fits a given context
 Uses context in a grade 10 passage to determine the meaning of above grade 10 vocabulary
 Uses context to determine the meaning of words in the 9-12 grade band

Reinforce these skills & concepts	Develop these skills & concepts	Introduce these skills & concepts
<p>Uses a dictionary definition to confirm initial understanding of word meaning</p> <p>Uses context and dictionary or thesaurus entries to determine word meaning</p>	<p>Uses a dictionary definition to confirm initial understanding of word meaning</p> <p>Uses context and dictionary or thesaurus entries to determine word meaning</p>	<p>Uses a dictionary definition to confirm initial understanding of word meaning</p> <p>Uses context and dictionary or thesaurus entries to determine word meaning</p>
Text Features, Visuals		
<p>Uses context and glossary entries to determine word meaning</p>	<p>Uses context and glossary entries to determine word meaning</p>	<p>Draws conclusions using specialized reference materials</p>
Word Nuances and Shades of Meaning		
<p>Analyzes nuances in meaning among related words to determine which fits a given context</p> <p>Understands precise connotations of words with similar meanings</p> <p>Uses context to determine connotation of words</p>	<p>Analyzes nuances in meaning among related words to determine which fits a given context</p> <p>Understands precise connotations of words with similar meanings</p> <p>Uses context to determine connotation of words</p>	<p>Analyzes connotative meanings of words in informational text</p> <p>Analyzes nuances in meaning among related words to determine which fits a given context</p> <p>Understands precise connotations of words with similar meanings</p> <p>Uses context to determine connotation of words</p>
Word Relationships		
<p>Identifies antonyms of given words in the 2-5 grade band</p> <p>Identifies antonyms of given words in the 6-8 grade band</p> <p>Identifies synonyms of given words in the 6-8 grade band</p> <p>Identifies words or phrases in context that show a cause-effect relationship</p> <p>Identifies words that complete given analogies</p> <p>Recognizes when words show an item-and-category relationship</p> <p>Uses antonym relationships in context to determine word meanings</p> <p>Uses context to identify words that are antonyms in the 6-8 grade band</p> <p>Uses context to identify words that are antonyms in the 9-12 grade band</p> <p>Uses context to identify words that are synonyms in the 2-5 grade band</p> <p>Uses synonym relationships in context to determine word meanings</p>	<p>Identifies antonyms of given words in the 6-8 grade band</p> <p>Identifies synonyms of given words in the 6-8 grade band</p> <p>Identifies synonyms of given words in the 9-12 grade band</p> <p>Identifies words or phrases in context that show a cause-effect relationship</p> <p>Uses antonym relationships in context to determine word meanings</p> <p>Uses synonym relationships in context to determine word meanings</p>	

Reinforce these skills & concepts

Develop these skills & concepts

Introduce these skills & concepts

Identifies synonyms of given words in the 9-12 grade band
Identifies words or phrases in context that show a cause-effect relationship
Uses synonym relationships in context to determine word meanings