Family Learning Alliance

MAP Growth Report

STUDENT NAME
April 2021
8th Grade

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Reading:

RIT Score	244
RIT Range	241-247
Percentile Rank	91
Grade level Equivalent	12th grade
Lexile Range	1440-1590

SECTION	RIT SCORE	COMPARED TO AVERAGE
Literary Text: Key Ideas and Details	**244**	**12th grade**
Literary Text: Language, Craft, and Structure	249	12th grade
Informational Text: Key Ideas and Details	236	12th grade
Informational Text: Language, Craft, and Structure	248	12th grade
Vocabulary: Acquisition and Use	232	12th grade

Math:

RIT Score	**227**
RIT Range	224-230
Percentile Rank	43%
Grade level equivalent	8th grade

SECTION	RIT SCORE	COMPARED TO AVERAGE
Operations and Algebraic Thinking	**227**	**8th grade**
Real and Complex Number Systems	228	8th grade
Statistics and Probability	227	8th grade
Geometry	228	8th grade

Reading Learning Goals:

I**nformational Text: Key Ideas and Details**

Draw Conclusions, Infer, Predict

Inferences, Conclusions

Student is ready to DEVELOP these skills (231-240):

Determines which aspects are left uncertain in informational text

Draws conclusions from informational text

Draws conclusions from procedural or technical text

Makes inferences from informational text

Makes inferences from literary nonfiction

Supporting Details

Student is ready to DEVELOP these skills (231-240):

Determines details that support a concept presented 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

Summarize; Analyze Central Ideas, Concepts, and Events

Assertions and Claims

Student is ready to DEVELOP these skills (231-240):

Compares and contrasts claims in multiple argumentative texts

Compares and contrasts viewpoints in multiple informational texts

Author's Craft: Persuasive and Rhetorical Techniques

Student is ready to DEVELOP these skills (231-240):

Analyzes how word choice or rhetorical techniques advance purpose

Inferences, Conclusions

Student is ready to DEVELOP these skills (231-240):

Analyzes implicit relationships between ideas in informational text

Analyzes implicit relationships between ideas in literary nonfiction

Compares or contrasts details/ideas described in informational text

Main or Central Idea, Topic

Student is ready to DEVELOP these skills (231-240):

Analyzes how details shape main/central idea in literary nonfiction

Analyzes the development of main/central idea in informational text

Analyzes the development of main/central idea in literary nonfiction

Determines main/central idea in informational text

Determines main/central idea in literary nonfiction

Determines multiple main/central ideas in a political speech

Determines multiple main/central ideas in one informational text

Determines multiple main/central ideas in one literary nonfiction text

Purpose

Student is ready to DEVELOP these skills (231-240):

Analyzes how word choice or rhetorical techniques advance purpose

Summarizing, Paraphrasing

Student is ready to DEVELOP these skills (231-240):

Summarizes informational text

Summarizes political speech

Supporting Details

Student is ready to DEVELOP these skills (231-240):

Analyzes the technique and details an author uses to develop an event, concept, or characterization in informational text

Determines details that support main/central idea in informational text

Theme, Moral, Central Idea

Student is ready to DEVELOP these skills (231-240):

Determines theme in literary nonfiction

Vocabulary: Acquisition and Use

Context Clues and Multiple-Meaning Words

Unknown and Multiple-Meaning Words

Student is ready to DEVELOP these skills (241-250):

Uses context in a grade 08 passage to determine the meaning of above grade 08 vocabulary

Uses context to confirm initial understanding of words or phrases

Uses context to determine the meaning of words in the 9-12 grade band and above

Word Parts, Reference, and Academic Vocabulary

Base Words, Affixes

Student is ready to DEVELOP these skills (241-250):

Applies knowledge of Greek or Latin roots to determine the meaning of a word in the 9-12 grade band

Reference Materials

Student is ready to DEVELOP these skills (241-250):

Uses context and dictionary or thesaurus entries to determine word meaning

Word Relationships and Nuance

Word Nuances and Shades of Meaning

Student is ready to DEVELOP these skills (241-250):

Analyzes nuances in meaning among related words to determine which fits a given context

Understands precise connotations of words with similar meanings

Uses context to determine connotation of words

Literary Text: Key Ideas and Details

Draw Conclusions, Infer, Predict

Inferences, Conclusions

Student is ready to DEVELOP these skills (241-250):

Makes inferences about plot in literary text

Supporting Details

Student is ready to DEVELOP these skills (241-250):

Determines details that support an inference in literary text

Summarize; Analyze Themes, Characters, and Events

Characterization

Student is ready to DEVELOP these skills (241-250):

Analyzes dialogue to understand characters

Analyzes how setting affects characters

Determines details that reveal characters' thoughts, feelings, or actions

Understands character relationships

Understands how characters are developed or changed

Setting

Student is ready to DEVELOP these skills (241-250):

Analyzes how setting affects characters

Draws conclusions about a setting based on a description

Summarizing, Paraphrasing

Student is ready to DEVELOP these skills (241-250):

Summarizes poetry

Supporting Details

Student is ready to DEVELOP these skills (241-250):

Determines details that support the theme in literary text

Theme, Moral, Central Idea

Student is ready to DEVELOP these skills (241-250):

Determines a shared theme in multiple texts

Determines multiple themes in one text

Determines theme in poetry

Informational Text: Language, Craft, and Structure

Point of View, Purpose, Perspective, Figurative and Rhetorical Language

Assertions and Claims

Student is ready to DEVELOP these skills (241-250):

Evaluates evidence used to support claims in argumentative text

Identifies reasons that support a claim in persuasive text

Author's Craft: Figurative Language

Student is ready to DEVELOP these skills (241-250):

Analyzes the effect of figurative language in literary nonfiction

Author's Craft: Perspective, Attitude

Student is ready to DEVELOP these skills (241-250):

Analyzes how author's viewpoint or attitude is conveyed in literary nonfiction

Determines author's attitude in informational text

Determines author's attitude in persuasive text

Author's Craft: Persuasive and Rhetorical Techniques

Student is ready to DEVELOP these skills (241-250):

Recognizes the use of parallelism

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

Student is ready to DEVELOP these skills (241-250):

Analyzes the effect of allusion on tone

Analyzes the effect of word choice on tone

Text Structures, Text Features

Text Features, Visuals

Student is ready to DEVELOP these skills (241-250):

Understands the purpose of a sidebar

Text Structure: Organization

Student is ready to DEVELOP these skills (241-250):

Analyzes the effect of multiple structures in informational text

Literary Text: Language, Craft, and Structure

Figurative, Connotative Meanings; Tone

Author's Craft: Figurative Language

Student is ready to DEVELOP these skills (241-250):

Interprets allusion in literary text

Interprets metaphor that makes a complex comparison to describe an abstract idea in literary text

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

Student is ready to DEVELOP these skills (241-250):

Analyzes tone in poetry

Determines tone in literary text

Point of View, Purpose, Perspective

Author's Craft: Perspective, Attitude

Student is ready to DEVELOP these skills (241-250):

Evaluates narrator's attitude in literary text to make an inference

Understands the point an author makes in a satirical passage

Point of View

Student is ready to DEVELOP these skills (241-250):

Describes how an ironic point of view affects meaning

Text Structures, Text Features

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

Student is ready to DEVELOP these skills (241-250):

Analyzes how mood affects plot in literary text

Plot

Student is ready to DEVELOP these skills (241-250):

Analyzes how mood affects plot in literary text

Identifies exposition in literary text

Text Structure: Organization

Student is ready to DEVELOP these skills (241-250):

Analyzes how specific paragraphs contribute to meaning in literary text

Math Learning Goals:

The Real and Complex Number Systems

Extend and Use Properties

Absolute Value: Concepts/Properties

Student is ready to DEVELOP these skills (221-230):

Evaluates the absolute value of a number

Coordinate Geometry

Student is ready to DEVELOP these skills (221-230):

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 quadrant for a given ordered pair

Plots points in all four quadrants of a coordinate plane

Decimals: Compare/Order

Student is ready to DEVELOP these skills (221-230):

Compares decimals to the hundredths, with a different number of digits after the decimal point, using symbols

Compares decimals to the hundredths, with a different number of digits after the decimal point, using terms

Compares decimals to the thousandths, with a different number of digits after the decimal point, using symbols

Orders decimals to the hundredths, with a different number of digits after the decimal point

Orders decimals to the thousandths, with a different number of digits after the decimal point

Decimals: Represent/Model

Student is ready to DEVELOP these skills (221-230):

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

Exponents

Student is ready to DEVELOP these skills (221-230):

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

Fractions: Compare/Order

Student is ready to DEVELOP these skills (221-230):

Compares fractions with like numerators or denominators using models and words

Compares fractions with unlike numerators and denominators using models and symbols

Fractions: Equivalence

Student is ready to DEVELOP these skills (221-230):

Converts between mixed numbers and improper fractions

Identifies fractions equivalent to whole numbers greater than 1

Identifies fractions equivalent to whole numbers greater than 1 using area or set models

Writes equivalent fractions for given area or set models

Fractions: Multiplication/Division

Student is ready to DEVELOP these skills (221-230):

Understands non-unit fractions as products of whole numbers and unit fractions

Fractions: Represent/Model

Student is ready to DEVELOP these skills (221-230):

Locates mixed numbers on a number line

Locates non-unit proper fractions on a number line

Understands non-unit fractions as products of whole numbers and unit fractions

Rational Numbers: Compare/Order

Student is ready to DEVELOP these skills (221-230):

Compares integers given the meaning of zero within a real-world situation

Compares integers that represent quantities in a real-world context

Compares positive rational numbers represented in multiple forms

Compares two rational numbers using a number line

Orders positive and negative rational numbers

Orders positive and negative rational numbers that represent quantities in a real-world context

Orders positive rational numbers represented in multiple forms

Orders positive rational numbers that represent quantities in a real-world context

Writes or interprets verbal comparative statements for rational numbers within a real-world context

Rational Numbers: Represent/Model

Student is ready to DEVELOP these skills (221-230):

Locates negative rational numbers on a number line

Real/Complex Numbers: Concepts/Properties

Student is ready to DEVELOP these skills (221-230):

Approximates the value of an irrational number

Determines whether a real number is rational or irrational

Whole Numbers: Place Value

Student is ready to DEVELOP these skills (221-230):

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

Perform Operations

Decimals: Addition/Subtraction

Student is ready to DEVELOP these skills (221-230):

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

Subtracts decimals from whole numbers

Decimals: Multiplication/Division

Student is ready to DEVELOP these skills (221-230):

Divides decimals by decimals

Multiplies or divides decimals by 10, 100, or 1,000

Decimals: Represent and Solve Word Problems

Student is ready to DEVELOP these skills (221-230):

Solves multi-step word problems involving the four operations and decimals, including contexts involving money

Solves one-step word problems involving multiplication of multi-digit whole numbers and decimals to the hundredths, including contexts involving money

Fractions: Addition/Subtraction

Student is ready to DEVELOP these skills (221-230):

Adds and subtracts fractions with denominators of 10 or 100

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 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 unlike denominators, no regrouping

Adds and subtracts whole numbers, fractions, and/or mixed numbers with unlike denominators, with regrouping

Fractions: Multiplication/Division

Student is ready to DEVELOP these skills (221-230):

Divides fractions by fractions, results in simplest form

Divides fractions by whole numbers, results in simplest form

Divides two whole numbers with a quotient in the form of a fraction or a mixed number

Multiplies fractions by fractions, results in simplest form

Multiplies fractions by whole numbers, results in simplest form

Understands that dividing by a fraction is the same as multiplying by its reciprocal

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

Fractions: Represent and Solve Word Problems

Student is ready to DEVELOP these skills (221-230):

Identifies contexts representing dividing unit fractions by whole numbers

Represents one-step word problems involving addition and subtraction of fractions and/or mixed numbers with unlike denominators, with expressions or equations

Represents one-step word problems involving division of whole numbers by fractions or mixed numbers, with expressions or equations

Solves multi-step word problems involving addition and subtraction of fractions with like denominators

Solves multi-step word problems involving addition and subtraction of fractions with unlike denominators

Solves multi-step word problems involving whole numbers, fractions and/or mixed numbers

Solves one-step word problems involving addition and subtraction of fractions with like denominators

Solves one-step word problems involving addition and subtraction of fractions with unlike denominators

Solves one-step word problems involving addition and subtraction of mixed numbers with like denominators

Solves one-step word problems involving addition and subtraction of mixed numbers with unlike denominators

Solves one-step word problems involving division of 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 fractions or mixed numbers

Solves one-step word problems involving division of whole numbers by unit fractions

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

Solves one-step word problems involving division of fractions or mixed numbers by whole numbers

Integers: Computation

Student is ready to DEVELOP these skills (221-230):

Adds and subtracts integers

Represents addition and subtraction of integers on a number line

Money

Student is ready to DEVELOP these skills (221-230):

Rounds dollars and cents

Numerical Expressions

Student is ready to DEVELOP these skills (221-230):

Applies the order of operations, with grouping symbols and excluding exponents, to simplify numerical expressions involving both positive and negative rational numbers

Represents real-world problems involving the addition and subtraction of integers with numerical expressions

Rewrites the sum of two whole numbers as a product of a common factor and the sum of two whole numbers

Problem Solving with Units

Student is ready to DEVELOP these skills (221-230):

Determines quantities to consider when approaching a real-world problem or making a decision

Properties and Relationships of Operations

Student is ready to DEVELOP these skills (221-230):

Decomposes numbers to simplify whole-number multiplication

Locates the additive inverse of a number on a number line

Understands division as equal sharing

Understands that dividing by a fraction is the same as multiplying by its reciprocal

Understands that the product of a negative number and a positive number is negative

Understands the additive inverse property

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

Rational Numbers: Computation

Student is ready to DEVELOP these skills (221-230):

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

Divides rational numbers, including combinations of positive or negative fractions, decimals, and integers

Identifies two rational numbers that combine to make 0

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

Rational Numbers: Equivalence

Student is ready to DEVELOP these skills (221-230):

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 denominators of 10 or 100

Converts fractions to decimals using long division

Represents a decimal as the sum of fractions with denominators of 10 and 100

Rational Numbers: Solve Real-World and Mathematical Problems

Student is ready to DEVELOP these skills (221-230):

Describes a situation that can be represented by a given numerical expression involving positive and negative numbers

Solves real-world problems involving the addition and subtraction of integers

Whole Numbers and Decimals: Rounding/Estimation

Student is ready to DEVELOP these skills (221-230):

Rounds decimals to any decimal place value

Rounds dollars and cents

Rounds whole numbers greater than 1,000,000

Rounds whole numbers within 1,000,000

Whole Numbers: Concepts/Properties

Student is ready to DEVELOP these skills (221-230):

Determines common factors

Determines common multiples

Determines least common multiples

Identifies factors of numbers less than 100

Whole Numbers: Multiplication/Division

Student is ready to DEVELOP these skills (221-230):

Decomposes numbers to simplify whole-number multiplication

Divides multi-digit whole numbers with three or more digits, without a remainder

Divides two whole numbers with a quotient in the form of a fraction or a mixed number

Divides whole numbers with more than four digits by two-digit divisors, without a remainder

Multiplies multi-digit whole numbers

Whole Numbers: Represent and Solve Word Problems

Student is ready to DEVELOP these skills (221-230):

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

Ratios and Proportional Relationships

Capacity

Student is ready to DEVELOP these skills (221-230):

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

Conversion of Units

Student is ready to DEVELOP these skills (221-230):

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 simple conversions of customary units of length

Completes simple conversions of customary units of weight

Converts unit rates to solve real-world problems

Converts units of length between the customary and the metric systems

Converts units of speed

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.

Length

Student is ready to DEVELOP these skills (221-230):

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 whole numbers and conversion of customary units

Rate of Change/Slope

Student is ready to DEVELOP these skills (221-230):

Identifies the unit rate from the graph of a proportional relationship

Rates/Ratios/Proportions/Percents

Student is ready to DEVELOP these skills (221-230):

Applies scale factors to solve problems involving scale drawings, maps, and models

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

Converts unit rates to solve real-world problems

Determines equivalent ratios

Determines the whole in a real-world percent problem given the part and the percent

Identifies the part-to-whole ratio between two quantities

Identifies the part-to-part ratio between two quantities

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 and mathematical problems using ratios or proportional reasoning

Uses a given unit rate to solve a multi-step real-world problem

Uses a given unit rate to solve a one-step real-world problem

Uses ratios of decimals to calculate unit rates

Uses ratios of whole numbers and decimals to calculate unit rates

Uses ratios of whole numbers and fractions to calculate unit rates

Uses ratios of whole numbers to calculate unit rates

Uses tables to represent real-world relationships described by a given ratio

Uses two given unit rates to solve a multi-step real-world problem

Writes a different ratio using the same quantities as a given ratio expressed either verbally, as a fraction, or in the form a:b

Writes the same ratio in different forms, including verbally, as a fraction, and in the form a:b

Rational Numbers: Equivalence

Student is ready to DEVELOP these skills (221-230):

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

Rational Numbers: Solve Real-World and Mathematical Problems

Student is ready to DEVELOP these skills (221-230):

Determines the whole in a real-world percent problem given the part and the percent

Solves multi-step percent problems within a real-world or mathematical context

Solves one-step percent problems within a real-world or mathematical context

Similarity

Student is ready to DEVELOP these skills (221-230):

Applies scale factors to solve problems involving scale drawings, maps, and models

Time

Student is ready to DEVELOP these skills (221-230):

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

Student is ready to DEVELOP these skills (221-230):

Completes simple conversions of customary units of weight

Statistics and Probability

Interpreting Categorical and Quantitative Data

Bivariate Data

Student is ready to DEVELOP these skills (221-230):

Analyzes linear trends in scatter plots to make predictions

Constructs scatter plots of bivariate data

Constructs two-way frequency tables

Describes and interprets data in a scatter plot

Describes and interprets outliers and clusters in a scatter plot

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

Interprets the meaning of the slope or y-intercept of a line of best fit or regression line

Understands the relationship between the value of the correlation coefficient and the strength and direction of a linear relationship

Uses a given equation of a line of best fit to make predictions

Data Analysis

Student is ready to DEVELOP these skills (221-230):

Compares the variability of related data sets from random samples presented in box plots

Determines a valid conclusion based on data presented in a box plot

Identifies outliers in a data set

Identifies the median, quartiles, extreme values, and outliers from a box plot

Reads and interprets data from a histogram

Solves multi-step problems using data from bar graphs with multi-unit scales

Solves word problems using data from line or dot plots with fractional scales

Data Representation

Student is ready to DEVELOP these skills (221-230):

Constructs scatter plots of bivariate data

Constructs two-way frequency tables

Represents data in histograms

Measures of Center and Spread (Variability)

Student is ready to DEVELOP these skills (221-230):

Compares the variability of related data sets from random samples presented in box plots

Determines the mean of a data set

Determines the median of a data set that is not ordered

Determines the median of a data set that is ordered

Determines the range of a data set

Identifies the median, quartiles, extreme values, and outliers from a box plot

Interprets the median in the context of a data set

Populations/Random Processes

Student is ready to DEVELOP these skills (221-230):

Determines a valid conclusion based on data presented in a box plot

Using Sampling and Probability to Make Decisions

Data Analysis

Student is ready to DEVELOP these skills (221-230):

Represents the intersection, union, and complement of sets using set notation

Populations/Random Processes

Student is ready to DEVELOP these skills (221-230):

Describes a simulation to model a real-world random process

Identifies a research design as a sample survey, an experiment, or an observational study

Identifies a sampling method that produces the most representative sample

Identifies an appropriate research design, including surveys, experiments and observational studies, to answer a question

Identifies valid inferences given a population sample

Writes and solves proportions to make inferences about populations

Probability

Student is ready to DEVELOP these skills (221-230):

Determines experimental probabilities of simple events

Determines theoretical probabilities of simple events

Distinguishes between independent and dependent events in situations

Makes predictions based on experimental probabilities of simple events

Makes predictions based on theoretical probabilities of simple events

Orders events from least likely to most likely given probabilities

Understands independence as it relates to previous outcomes

Sample Spaces

Student is ready to DEVELOP these skills (221-230):

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

Uses permutations and combinations to determine the number of possible outcomes

Uses the Fundamental Counting Principle to determine the number of possible outcomes

Operations and Algebraic Thinking

Expressions and Equations

Algebraic Expressions

Student is ready to DEVELOP these skills (221-230):

Evaluates linear 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 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

Interprets a quadratic expression within the context of a real-world relationship

Interprets the coefficient and constant in a linear expression within the context of a real-world relationship

Translates between verbal and algebraic expressions

Writes linear expressions in one variable to represent real-world or mathematical contexts

Exponents

Student is ready to DEVELOP these skills (221-230):

Evaluates numbers with whole-number 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 whole-number exponents only

Fractions: Represent and Solve Word Problems

Student is ready to DEVELOP these skills (221-230):

Represents and solves word problems involving division of whole numbers where the quotient is a fraction

Inequalities

Student is ready to DEVELOP these skills (221-230):

Determines whether a linear equation or inequality is true for a given value of the variable

Solves one-step linear inequalities with positive rational numbers

Solves two-step linear inequalities

Writes a linear inequality in two variables to represent 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 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

Linear Functions

Student is ready to DEVELOP these skills (221-230):

Compares the rate of change between two proportional relationships represented in different ways

Creates a table to represent a real-world relationship between an independent and a dependent variable in the form y = x + c, given a graph

Creates a table to represent a real-world relationship between an independent and a dependent variable, given an equation in the form y = x + c

Graphs a linear function of the form y = mx given a simple scenario

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 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 the equation of a line in the form y = mx given a table of values or two ordered pairs

Number Sentences/Equations/Equivalence

Student is ready to DEVELOP these skills (221-230):

Determines the number of solutions of a linear equation in one variable given the corresponding equation in the form x=a, x=x, or a=b

Determines whether a linear equation or inequality is true for a given value of the variable

Evaluates formulas or linear equations at given values for the variables

Solves absolute value equations

Solves cubic equations by taking cube roots

Solves multi-step linear equations with positive and negative rational numbers

Solves one-step linear equations with negative rational numbers

Solves one-step linear equations with positive rational numbers

Solves quadratic equations in one variable using factoring, the quadratic formula, or other appropriate method

Solves quadratic equations in the form $x^2 = c$

Solves two-step linear equations with negative rational numbers

Solves two-step linear equations with positive rational numbers

Writes a one-step linear equation in one variable to represent 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 and solves a two-step linear equation in one variable involving a real-world or mathematical context

Numerical Expressions

Student is ready to DEVELOP these skills (221-230):

Applies the order of operations, with grouping symbols and excluding exponents, to simplify numerical expressions involving both positive and negative rational numbers

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 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

Evaluates numerical expressions involving multiple operations with whole numbers and parentheses

Represents descriptions of calculations with numerical expressions or equations that include parentheses

Uses properties of exponents to simplify numerical expressions involving whole-number exponents only

Polynomial Functions

Student is ready to DEVELOP these skills (221-230):

Identifies the zeros of a polynomial function from a graph

Properties and Relationships of Operations

Student is ready to DEVELOP these skills (221-230):

Applies the distributive property of multiplication to whole numbers

Radicals

Student is ready to DEVELOP these skills (221-230):

Evaluates the square root of a perfect square

Rate of Change/Slope

Student is ready to DEVELOP these skills (221-230):

Compares the rate of change between two proportional relationships represented in different ways

Rational Numbers: Solve Real-World and Mathematical Problems

Student is ready to DEVELOP these skills (221-230):

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

Scientific Notation

Student is ready to DEVELOP these skills (221-230):

Converts a number from scientific notation to standard form

Converts a number from standard form to scientific notation

System of Equations/Inequalities

Student is ready to DEVELOP these skills (221-230):

Solves a system of linear equations graphically

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

Whole Numbers: Represent and Solve Word Problems

Student is ready to DEVELOP these skills (221-230):

Represents and solves word problems involving division of whole numbers where the quotient is a fraction

Use Functions to Model Relationships

Exponential and Logarithmic Functions

Student is ready to DEVELOP these skills (221-230):

Interprets the meaning of the y-intercept of a graph within the context of a real-world exponential relationship

Linear Functions

Student is ready to DEVELOP these skills (221-230):

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

Compares the rate of change and intercepts between two nonproportional linear functions represented in different ways

Graphs a linear function of the form y = mx given a simple scenario

Interprets the meaning of the slope of a graph in a real-world linear relationship

Interprets the meaning of the x-intercept of a graph 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

Translates between the graph of a 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

Patterns/Sequences/Series

Student is ready to DEVELOP these skills (221-230):

Determines the value of a term in a geometric sequence defined by a list

Determines the value of a term in a geometric sequence given a contextual situation

Determines the value of a term in an arithmetic sequence given a contextual situation

Writes an expression or formula for the nth term of an arithmetic sequence given a contextual situation

Piecewise/Absolute Value Functions

Student is ready to DEVELOP these skills (221-230):

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

Quadratic Functions

Student is ready to DEVELOP these skills (221-230):

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

Rate of Change/Slope

Student is ready to DEVELOP these skills (221-230):

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 of a piecewise function over a given interval

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

Geometry

Congruence, Similarity, Right Triangles, & Trig

Congruence

Student is ready to DEVELOP these skills (221-230):

Describes a single transformation that shows two shapes are congruent, without the coordinate plane

Determines measures of corresponding angles in congruent figures

Identifies the transformation that shows two triangles are congruent by SSS, SAS, or ASA

Understands that rigid transformations preserve congruency

Geometric Proof/Logic/Inductive and Deductive Reasoning

Student is ready to DEVELOP these skills (221-230):

Determines the conditions necessary to prove two triangles are similar

Points, Lines, Segments, Rays, and Angles

Student is ready to DEVELOP these skills (221-230):

Recognizes precise definitions of parallel and perpendicular lines

Relationships involving Lines, Angles, and Polygons

Student is ready to DEVELOP these skills (221-230):

Applies properties of isosceles triangles 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

Solves problems involving parallel lines cut by a transversal

Similarity

Student is ready to DEVELOP these skills (221-230):

Applies properties of similar triangles to solve real-world problems involving indirect measurements

Determines lengths of corresponding sides in similar figures

Determines the conditions necessary to prove two triangles are similar

Spatial Concepts and Symmetry

Student is ready to DEVELOP these skills (221-230):

Determines the number of lines of symmetry in 2-D figures

Transformations

Student is ready to DEVELOP these skills (221-230):

Describes a single transformation that shows two shapes are congruent, 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 dilation or a series of dilations, with center at the origin

Determines the coordinates of the vertices of a polygon after a translation or a series of translations

Determines the image of a polygon on a coordinate plane after a reflection or a series of reflections

Determines the image of a polygon on a coordinate plane after a rotation or a series of rotations

Determines the measures of corresponding sides and angles in an image and pre-image of a figure after a rigid transformation

Identifies the transformation that shows two triangles are congruent by SSS, SAS, or ASA

Understands that rigid transformations preserve congruency

Geometric Measurement and Relationships

Angle Measurement

Student is ready to DEVELOP these skills (221-230):

Calculates unknown angle measures using the additive property of angles

Identifies/estimates angle measures

Knows the definition of an angle

Measures non-right angles using a protractor

Understands what the measure of an angle represents

Area

Student is ready to DEVELOP these skills (221-230):

Describes the effect on area when dimensions of a rectangle are changed

Describes the effect on area when dimensions of a triangle are changed

Determines side lengths given the area of rectangles

Determines the area of parallelograms, formula not provided

Determines the area of rectangles with fractional sides, formula not provided

Determines the area of rectangles with whole-number sides, formula not provided

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

Circles

Student is ready to DEVELOP these skills (221-230):

Recognizes the relationship between tangent lines and radii

Coordinate Geometry

Student is ready to DEVELOP these skills (221-230):

Determines the coordinates of missing vertices of geometric figures in the first quadrant given the coordinates of the other vertices

Determines the coordinates of one endpoint of a line segment given the coordinates of the midpoint and the other endpoint

Identification and Classification of 2-D Shapes

Student is ready to DEVELOP these skills (221-230):

Identifies and names nonbasic shapes, such as trapezoids, hexagons, etc.

Identifies and names special triangles, such as acute, right, scalene, etc., given pictures

Identifies properties of a 2-D shape, such as right angles, parallel sides, etc., given pictures

Knows definitions of special triangles, such as acute, right, scalene, etc.

Understands the relationships among categories of shapes

Length

Student is ready to DEVELOP these skills (221-230):

Knows relative sizes of metric units of length

Understands measurement involving rulers

Perimeter/Circumference

Student is ready to DEVELOP these skills (221-230):

Determines side lengths given the perimeter of rectangles

Determines the circumference of circles, formula not provided

Determines the circumference of circles, given the formula

Determines the perimeter of basic polygons in which not all sides are labeled

Determines the radius or diameter given the circumference of a circle

Recognizes situations which describe perimeter

Solves problems involving perimeters of rectangles within a real-world or mathematical context

Points, Lines, Segments, Rays, and Angles

Student is ready to DEVELOP these skills (221-230):

Identifies perpendicular lines involving real-world objects

Knows the definition of an angle

Understands what the measure of an angle represents

Rates/Ratios/Proportions/Percents

Student is ready to DEVELOP these skills (221-230):

Applies the concept of density to solve problems involving area and volume

Relationships involving Lines, Angles, and Polygons

Student is ready to DEVELOP these skills (221-230):

Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles

Similarity

Student is ready to DEVELOP these skills (221-230):

Applies scale factors to solve problems involving scale drawings of geometric figures

Applies scale factors to solve problems involving scale drawings, maps, and models

Determines lengths of corresponding sides in similar figures

Determines scale factors in problems involving scale drawings of geometric figures

Spatial Concepts and Symmetry

Student is ready to DEVELOP these skills (221-230):

Identifies and creates nets for prisms

Identifies the cross-sections of 3-D shapes

Time

Student is ready to DEVELOP these skills (221-230):

Determines elapsed time across both minutes and hours using clocks

Solves elapsed-time word problems involving counting backward by both hours and minutes

Solves elapsed-time word problems involving counting forward by both hours and minutes

Volume

Student is ready to DEVELOP these skills (221-230):

Determines the length, width, or height given the volume of a rectangular prism and two of the dimensions

Determines the volume of figures by counting unit cubes

Determines the volume of pyramids, given the formula

Determines the volume of rectangular prisms, formula not provided

Determines the volume of rectangular prisms, given the formula

Represents the volume of rectangular prisms composed of unit cubes, using repeated addition expressions or equations

Solves problems involving volumes of rectangular prisms within a real-world or mathematical context

Definitions:

RIT Score	MAP Growth uses a scale called RIT to measure student achievement and growth. RIT stands for Rasch UnIT and is a measurement scale developed to simplify the interpretation of test scores. It is an equal-interval scale, like feet and inches on a ruler, so scores can be added together to calculate accurate class or school averages. RIT scores range from about 100–300. Students typically start at the 180–200 level in the third grade and progress to the 220–260 level by high school. RIT scores make it possible to follow a student's educational growth from year to year.
RIT Range	Percentiles are used to compare one student's performance to that of the norm group. Percentile means the student scored as well as, or better than, that percent of students taking the test in their grade. There is about a 68% chance that a student's percentile ranking will fall within this range if the student tested again relatively soon.
Percentile Rank	This number indicates the percentage of students in the NWEA norm group for a grade that a student's score equaled or exceeded. The percentile rank is a normative statistic that indicates how well a student performed in comparison to the students in the norm group. A student's percentile rank indicates that the student scored as well as, or better than, the

	percent of students in the norm group. In other words, a student with a percentile rank

Grade level equivalent	**Using student achievement norms based on the bell curve, the RIT score can be used to tell you the grade level equivalence of your child's score.**
Lexile Range	**A score that can be used to determine reading material that is the appropriate level for your child. You can find more information at htts://lexile.com**
Learning Goals	**Learning goals are based off of NWEA's learning continuum. These goals define the skills and concepts that are in your child's zone of proximal development and may be helpful in planning current instruction.**