

# Measures of Academic Progress (MAP) Louisiana State-Aligned Version 3

The NWEA Goal Structure is a document that represents the content and structure of a state's standards documents. Goal structures are created through an alignment process that links state standards documents to the NWEA item bank. The MAP tests and associated reports for teachers and students are based upon this structure and alignment.

The alignment process begins with a thorough review of a state's standards documents by NWEA's curriculum specialists. The general goal areas or strands within a state's standards that appear across grade levels become the goals in the goal structure (indicated below as bold). Areas in a state's standards documents that are determined to be sub-domains of the goals/strands become the sub-goals in the goal structure (indented under each goal below).

Goal and sub-goal names from the Goal Structure are shortened for technical reasons to create the headings in DesCartes. Report Names are shortened further to accommodate report specifications.

<b>Mathematics 2-5 Goal Structure</b>	<b>Mathematics 2-5 DesCartes</b>	<b>Mathematics 2-5 Report Names</b>
<b>Number Relations</b>	<b>Number Relations</b>	<b>Number Relations</b>
Construct number meaning and demonstrate that a number can be expressed in many different forms: Read, write, represent, compare, order, and use whole numbers in a variety of forms; count; use ordinal numerals to discuss positions in ordered lists; differentiate between the terms factor and multiple, and prime and composite; model, read, and write place value in word, standard, and expanded form.	Read, Write, and Compare Whole Numbers	

<p>Construct, use, and explain procedures to compute and estimate with whole numbers: Use concrete objects to model simple real-life problems; recognize, select, connect, and use operations, operational words, and symbols to solve real-life situations; solve multiplication and division number sentences including interpreting remainders; use the concepts of associative and commutative properties of multiplication; round numbers to the nearest 10, 100, or 1000 and identify situations in which such rounding is appropriate; use estimation strategies; determine when an estimate is sufficient and when an exact answer is needed.</p>	<p>Compute and Estimate with Whole Numbers</p>	
<p>Use rational numbers in a variety of forms: Model, read, write, compare, order, and represent fractions using region and set models; read, explain, and write a numerical representation for positive improper fractions, mixed numbers, and decimals; compute equivalent fractions; explain concepts of ratios and equivalent ratios; read, write, and relate decimals through hundredths; give decimal equivalents of halves, fourths, and tenths; add and subtract fractions with common denominators; count money, determine change, and solve simple word problems involving money amounts using decimal notation.</p>	<p>Rational Numbers</p>	
<p><b>Patterns and Algebra</b></p>	<p><b>Patterns and Algebra</b></p>	<p><b>Patterns and Algebra</b></p>
<p>Demonstrate a conceptual understanding of variables, expressions, equations, and inequalities: Model and develop strategies for solving equations and inequalities; use the equal sign to express the relationship of equality; use the symbols <math>&lt;</math>, <math>&gt;</math>, and "not equal to", to express inequalities; find solutions to one-step inequalities and identify positive solutions on a number line; write number sentences or formulas containing a variable to represent real-life problems; solve one-step equations with whole number solutions.</p>	<p>Expressions, Equations, and Inequalities</p>	

Recognize, describe, extend, and create a wide variety of numerical, geometrical, and statistical patterns: Describe and represent relationships using tables, rules, simple equations, and graphs; identify missing elements in a number pattern; represent the relationship in an input-output situation using a simple equation, graph, table, or word description.	Patterns, Relations, and Functions	
<b>Measurement</b>	<b>Measurement</b>	<b>Measurement</b>
Apply the concepts of length, capacity, weight, mass, time, and temperature to real-world experiences: Select and use appropriate tools and units to measure length, time, capacity, and weight; use estimation to describe, order, and compare measures of length, capacity, weight/mass, time, and temperature; convert from one unit of measurement to another within the same system; tell time to the nearest minute; solve elapsed time problems; read a thermometer; measure angles.	Length, Weight, Capacity, Time, and Temperature	
Apply the concepts of length, area, and volume to real-world experiences: Use estimates and measurements to calculate perimeter and area of rectangular objects; find the perimeter of a geometric shape; use non-standard units to cover a given region; find the area of a rectangle drawn on a grid or by covering the region with square tiles.	Perimeter and Area	
<b>Geometry</b>	<b>Geometry</b>	<b>Geometry</b>
Identify, describe, compare, construct, and classify two-dimensional and three-dimensional geometric shapes: Compare, contrast, name, and describe attributes of shapes; sort objects or shapes according to attributes.	Identify, Describe, Compare, Classify Shapes	

<p>Make predictions regarding combinations, subdivisions, and transformations of geometric figures: Demonstrate an understanding of the coordinate system; apply concepts of congruence, similarity, and symmetry; fold nets into 3-dimensional objects; identify the top, bottom, or side view of a 3-dimensional object; identify a reduction or enlargement of a shape; identify segments, rays, and lines that are perpendicular, parallel, and intersecting; identify, give properties of, and distinguish among points, lines, line segments, planes, rays, and angles; find the length of a path between two points; plot points.</p>	<p>Transformations and Coordinate Geometry</p>	
<p><b>Data and Probability</b></p>	<p><b>Data and Probability</b></p>	<p><b>Data and Probability</b></p>
<p>Collect, organize, and describe data based on real-life situations: Analyze, interpret, evaluate, draw inferences, and make estimations, predictions, decisions, and convincing arguments based on organized data; identify categories and sort objects; collect and organize data using tally mark charts; sort, represent, and use information in simple tables and bar/picture graphs; construct and read line plots; read, describe, and organize Venn diagrams; compare and contrast different scales and labels; summarize information and relationships in a graph; determine which type of graph best represents a given set of data; generate questions; find and interpret the meaning of mean, mode, and median.</p>	<p>Collect, Organize, Interpret and Analyze Data</p>	
<p>Predict outcomes based on probability: Analyze various counting procedures; discuss chance situations in terms of certain/impossible and equally likely; use lists, tables, and tree diagrams to generate and record all possible combinations for given experiments; apply appropriate probabilistic reasoning in real-life contexts using games and other activities; represent probabilities as common fractions; solve logic problems involving two sets by using elementary set logic; solve problems involving simple deductive reasoning.</p>	<p>Probability and Logic</p>	

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Mathematics 6+ Goal Structure	Mathematics 6+ DesCartes	Mathematics 6+ Report Names
Number Relations	Number Relations	Number Relations
<p>Demonstrate an understanding of the real number system: Read, write, represent, and use rational numbers in a variety of forms; factor whole numbers into primes; find the greatest common factor and least common multiple for whole numbers; recognize and compute equivalent representations of fractions, decimals, and percents; compare rational numbers; identify natural numbers, whole numbers, integers, rational numbers, and irrational numbers; apply scientific notation to perform computations, solve problems, and write representations of numbers; describe the relationship between exponential and logarithmic equations.</p>	Number Sense and the Real Number System	
<p>Construct, use, and explain procedures to compute and estimate with rational numbers: Solve real-life problems involving positive fractions, percents, mixed numbers, decimals, and integers; determine when an estimate is sufficient and when an exact answer is needed in problems using decimals and percents.</p>	Computational Methods: Rational Numbers	
<p>Predict the effect of operations on real numbers: Solve order of operations problems; apply the distributive property; perform operations on numerical expressions involving radicals and expressions containing rational exponents; read, write, and perform basic operations on complex numbers.</p>	Computational Methods: Real Numbers	

Apply ratios and proportional thinking in a variety of situations: Use proportional reasoning to model and solve real-life problems; determine and apply rates and ratios; find unit/cost rates; use proportional reasoning to model and solve real-life problems involving direct and inverse variation; define sine, cosine, and tangent in ratio form.	Proportional Reasoning	
<b>Patterns and Algebra</b>	<b>Patterns and Algebra</b>	<b>Patterns and Algebra</b>
Demonstrate a conceptual understanding of variables, expressions, equations, and inequalities: Translate real-world situations into algebraic expressions, equations, and inequalities; determine the square root of perfect squares and approximate other square roots; evaluate algebraic expressions; simplify or rewrite variable expressions; use equivalent forms of equations and inequalities to solve problems; factor simple quadratic expressions.	Translate Expressions, Equations & Inequalities	
Solve algebraic equations and inequalities using a variety of techniques: Graph solutions of linear equations and inequalities; translate between the characteristics defining a line and both its equation and graph; graph and interpret systems of linear inequalities; interpret and solve systems of linear equations; write the equation of a line of best fit; solve quadratic equations; model and solve problems involving quadratic, polynomial, exponential, logarithmic, step function, rational, and absolute value equations.	Solve and Graph Equations and Inequalities	

<p>Describe, extend, analyze, and create a wide variety of numerical, geometrical, and statistical patterns: Translate between tabular, symbolic, or graphic representations of functions; write the equation of a line parallel or perpendicular to a given line; construct a table of x- and y-values satisfying a linear equation and construct a graph of the line; describe situations with constant or varying rates of change; identify independent and dependent variables; determine if a relation is a function; use function notation; identify domain and range; compare properties of families of functions; analyze functions based on zeros, asymptotes, and local and global characteristics.</p>	<p>Analyze and Represent Functions and Patterns</p>	
<p><b>Measurement</b></p>	<p><b>Measurement</b></p>	<p><b>Measurement</b></p>
<p>Apply the concepts of length, capacity, weight, mass, time, temperature, and rate to real-world experiences: Select and use appropriate units, techniques, and tools to measure quantities; convert from one unit of measurement to another within the same system; compare and order measurements; calculate, interpret, and compare rates; distinguish between precision and accuracy; use significant digits in computational problems; explain the unit circle basis for radian measure and show its relationship to degree measure of angles.</p>	<p>Length, Weight, Capacity, Temperature, and Rate</p>	
<p>Apply the concepts of area, surface area, and volume to real-world experiences: Estimate, compute, and apply physical measurement using suitable units; calculate perimeter and area of triangles, parallelograms, trapezoids, and composite plane figures; estimate perimeter and area of any 2-dimensional figure; determine the volume and surface area of prisms, cylinders, pyramids, spheres, and cones; solve problems using indirect measurement; model and use trigonometric ratios to solve problems; use Law of Sines and Law of Cosines to solve problems; identify and apply the unit circle definition to trigonometric functions.</p>	<p>Perimeter, Area, Volume, Indirect Measurement</p>	

Geometry	Geometry	Geometry
<p>Identify, describe, compare, construct, and classify geometric figures in two and three dimensions and make conjectures about geometric concepts and figures: Apply concepts, properties, and relationships of points, lines, line segments, rays, diagonals, circles, and right, acute, and obtuse angles and triangles in real-life situations; determine the radius, diameter, circumference, and area of a circle; solve problems involving chords, radii, arcs, angles, secants, and tangents of a circle; determine angle measurements using the properties of parallel, perpendicular, and intersecting lines in a plane.</p>	<p>Describe, Classify, Compare Geometric Figures</p>	
<p>Make predictions regarding transformations of geometric figures: Demonstrate an understanding of the coordinate system; plot points on a coordinate grid and locate the coordinates of a missing vertex in a parallelogram; represent translations, reflections, rotations, and dilations of plane figures using sketches, coordinates, vectors, and matrices; define and apply the terms measure, distance, midpoint, bisect, bisector, and perpendicular bisector; solve problems involving distance; identify conic sections.</p>	<p>Coordinate and Transformational Methods</p>	
<p>Represent and solve problems using geometric models and the properties of those models: Classify figures in terms of congruence and similarity and apply these relationships; apply the Pythagorean theorem; solve problems involving lengths of sides of similar triangles; interpret and use scale drawings in real-life situations; determine angle measures and side lengths of right and similar triangles using trigonometric ratios; develop formal and informal proofs; explain the relationship between perimeter and area, and between the dimensions of a rectangular prism and its volume.</p>	<p>Apply Geometric Properties</p>	

Data and Probability	Data and Probability	Data and Probability
<p>Collect, organize, describe, and display data in charts, tables, plots, and graphs; Analyze, interpret, evaluate, draw inferences, and make estimations, predictions, decisions, and convincing arguments based on organized data; organize, label, display, and interpret data in frequency tables, stem-and-leaf plots, scatter plots, circle graphs, and box-and-whisker plots; describe and interpret normal and non-normal distributions; discuss differences between samples and populations; calculate mean, median, mode, and range; explain factors that affect measures of central tendency and discuss which measure is most appropriate.</p>	<p>Collect, Organize, Describe, Analyze, Data</p>	
<p>Analyze various counting and enumeration procedures with and without replacement: Demonstrate an understanding of the calculation of finite probabilities using permutations, combinations, sample spaces, and geometric figures; calculate and apply single- and multiple-event probabilities, including mutually exclusive, independent events and non-mutually exclusive, dependent events; create and use Venn diagrams to solve counting logic problems; draw and justify conclusions based on the use of logic; represent data and solve problems involving Euler and Hamiltonian paths.</p>	<p>Probability and Logic</p>	

## Measures of Academic Progress (MAP) Louisiana State-Aligned Version 3

Reading Goal Structure	Reading DesCartes	Reading Report Names
<b>Read and Comprehend Using a Variety of Strategies [Word Meaning and Analysis]</b>	<b>Read: A Variety of Strategies</b>	<b>Reading Strategies</b>
Phonemic awareness and phonics	Phonemic Awareness and Phonics	
Vocabulary and context clues	Vocabulary and Context Clues	
Multiple meanings	Multiple Meanings	
Affixes and word derivations	Affixes and Word Derivations	
<b>Read and Comprehend Using a Variety of Strategies [Literal Comprehension]</b>	<b>Genre, Retell, Locate Info</b>	<b>Genre, Retell, Locate Info</b>
Interpret texts: retell and summarize	Interpret Texts: Retelling and Summarizing	
Identify and distinguish various genres	Identify and Distinguish Various Genres	
Locate information, sequence	Locate Information, Sequencing	
Determine main idea	Determine Main Idea	
<b>Read and Comprehend Using a Variety of Strategies [Interpretive Comprehension]</b>	<b>Comp Strat, Elements, Devices</b>	<b>Compre Strat, Elem, Devices</b>
Recognize author's purpose	Recognize Author's Purpose	
Interpret story elements	Interpret Story Elements	
Interpret literary devices	Interpret Literary Devices	
Use comprehension strategies: predict, make inferences, draw conclusions	Predict, Infer, Draw Conclusions	
<b>Read and Comprehend Using a Variety of Strategies [Evaluative Comprehension]</b>	<b>Analytical Skills, Viewpoint</b>	<b>Analytical Viewpoint</b>
Recognize author's viewpoint	Recognize Author's Viewpoint	
Distinguish fact from opinion	Distinguish Fact from Opinion	

Use analytical reasoning skills	Use Analytical Reasoning Skills	
Use organizational features of printed text	Use Organizational Features of Printed Text	
Determine cause and effect, compare and contrast	Determine Cause and Effect, Compare and Contrast	

## Measures of Academic Progress (MAP) Louisiana State-Aligned Version 3

Language Usage Goal Structure	Language Usage DesCartes	Language Usage Report Names
<b>Write for a Variety of Purposes and Audiences: Prewriting</b>	<b>Writing Process: Prewrite</b>	<b>Writing: Prewrite</b>
Conventions of language: concepts of print	Conventions of Language: Concepts of Print	
Identify and apply the steps of the writing process	Identify and Apply the Steps of the Writing Process	
Apply the steps of the writing process: prewriting	Apply the Steps of the Writing Process: Prewriting	
Awareness of intended audience	Awareness of Intended Audience	
Awareness of intended purpose	Awareness of Intended Purpose	
<b>Write for a Variety of Purposes and Audiences: Drafting/Revising</b>	<b>Writing Process: Draft, Revise</b>	<b>Writing: Draft, Revise</b>
Apply the steps of the writing process: drafting	Apply the Steps of the Writing Process: Drafting	
Use a variety of approaches to writing	Use a Variety of Approaches to Writing	
Apply the steps of the writing process: revising	Apply the Steps of the Writing Process: Revising	
Write compositions: clearly stated, central idea, supporting details, sequential order	Central Idea, Supporting Details, Sequential Order	
<b>Write for a Variety of Purposes and Audiences: Editing/Publishing</b>	<b>Writing Process: Edit</b>	<b>Writing: Edit</b>
Edit and proofread: punctuation and capitalization	Edit: Punctuation and Capitalization	
Edit and proofread: grammar and spelling	Edit: Grammar and Spelling	
Apply writing process: edit	Apply Writing Process: Edit	
<b>Communicates Using Standard English: Grammatical Conventions</b>	<b>Grammatical Conventions</b>	<b>Grammatical Conventions</b>
Understands parts of speech: nouns and pronouns	Uses Parts of Speech: Nouns and Pronouns	
Understands parts of speech: verbs	Uses Parts of Speech: Verbs	
Understands parts of speech: adjectives and adverbs	Uses Parts of Speech: Adjectives and Adverbs	

Understands parts of speech: conjunctions and prepositions	Uses Parts of Speech: Conjunctions, Prepositions	
Understands parts of speech: negatives and interjections	Uses Parts of Speech: Negatives and Interjections	
Understands parts of speech: phrases and clauses	Uses Parts of Speech: Phrases and Clauses	
<b>Communicates using standard English: Mechanical Conventions</b>	<b>Mechanical Conventions</b>	<b>Mechanical Conventions</b>
Demonstrates use of punctuation	Demonstrates Use of Punctuation	
Demonstrates use of capitalization	Demonstrates Use of Capitalization	
Spells accurately	Spells Accurately	
<b>Communicates Using Standard English: Structure</b>	<b>Structure, Modes</b>	<b>Structure and Modes</b>
Uses various modes of writing: narrative	Uses Various Modes of Writing: Narrative	
Uses various modes of writing: expository	Uses Various Modes of Writing: Expository	
Uses various modes of writing: persuasive	Uses Various Modes of Writing: Persuasive	
Uses various modes of writing: poetic	Uses Various Modes of Writing: Poetic	
Uses various modes of writing: personal	Uses Various Modes of Writing: Personal	
Uses various modes of writing: business	Uses Various Modes of Writing: Business	
Uses various modes of writing: research	Uses Various Modes of Writing: Research	
Employs specific organizational elements	Employs Organizational Elements	