Measures of Academic Progress (MAP) District of Columbia State-Aligned Version 1

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.

Mathematics 2-5 Goal Structure	Mathematics 2-5 DesCartes	Mathematics 2-5 Report Names
Number Sense and Operations*	**Number Sense and Operations**	**Number Sense and Operations**
Number sense: represent, round, and manipulate whole numbers and decimals	Number Sense: Represent, Round, Manipulate	
Number sense: locate on the number line, compare, and order whole numbers, positive fractions, decimals, percents, and integers	Number Sense: Locate, Compare, Order	
Number sense: apply number theory concepts of primes, composites, common factors and common multiples	Number Sense: Number Theory Concepts	
Fractions: interpret fractions and find equivalent fractions, mixed numbers, decimals, percents, and improper fractions	Fractions: Equivalent Fraction, Decimal, Percent	
Computation and operations: add and subtract whole numbers, decimals, fractions, and integers, except for subtracting a negative integer	Computation, Operations: Add and Subtract	
Computation and operations: multiply and divide whole numbers; multiply positive fractions and positive decimals by whole numbers	Computation, Operations: Multiply and Divide	

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Estimation: estimate sums and differences of whole numbers, positive fractions, and positive decimals, products of whole numbers, and products of positive decimals with whole numbers; use a variety of strategies and judge reasonableness of answers	Estimation: Computation Whole, Fraction, Decimal	
Patterns, Relations, and Algebra	**Patterns, Relations, and Algebra**	**Patterns, Algebra**
Patterns and relations: analyze and determine the rules for extending symbolic, repeating, arithmetic, and geometric patterns and progressions; represent real situations and mathematical relationships with concrete models, tables, graphs, and rules in words and with symbols; interpret graphs	Patterns and Relations	
Algebraic expressions: replace variables with given values, evaluate, and simplify; interpret and evaluate mathematical expressions that use parentheses	Algebraic Expressions	
Algebraic equations: use the properties of equality to solve problems with whole numbers; represent real situations and mathematical relationships with concrete models, tables, graphs, and rules in words and with symbols; solve problems involving proportional relationships; interpret graphs	Algebraic Equations	
Geometry	**Geometry**	**Geometry**
Two- and three-dimensional shapes: identify, describe, classify, compare, and analyze special types of two- and three-dimensional shapes; predict and validate the results of partitioning and combining two- and three-dimensional shapes	Two- and Three-Dimensional Shapes	
Symmetry, congruence, similarity, and transformations: identify and describe types of symmetry; predict and validate the results of folding two- and three-dimensional shapes; determine if two triangles or two quadrilaterals are congruent; predict, describe, and perform transformations on two-dimensional shapes; recognize similar figures	Symmetry, Congruence, Similarity, Transformations	

Cartesian coordinate plane: graph points and identify coordinates of points on the Cartesian coordinate plane in the first two quadrants; using ordered pairs of numbers and/or letters, graph, locate, and identify points and describe paths on a grid and in the first quadrant of the coordinate plane	Cartesian Coordinate Plane	
Measurement	**Measurement**	**Measurement**
Length, capacity, weight, time, angle size, temperature, and money: identify and use appropriate metric and U.S. Customary units and tools to estimate, measure, and solve problems; solve problems involving proportional relationships and units of measurement; identify the value of all U.S. coins and bills; find the value of a collection of coins and bills and different ways to represent an amount of money	Length, Capacity, Weight, Time, Angle, Temperature	
Area, perimeter, volume, and surface area: apply formulas and solve problems involving the areas of triangles, rectangles, and parallelograms; solve problems involving proportional relationships and units of measurement; identify, measure, and describe circles and the relationships of the radius, diameter, circumference, and area; find volumes and surface areas of rectangular prisms	Area, Perimeter, Volume, and Surface Area	

Data Analysis, Statistics, and Probability	Data Analysis, Statistics, and Probability	Data, Stats, Probability
Data analysis: collect and organize data using observations, measurements, surveys, or experiments; construct, draw conclusions, and make predictions from various representations of data sets, including tallies, lists, tables, pictographs, Venn diagrams, line graphs, line plots, circle graphs, and bar graphs	Data Analysis: Representations of Data Sets	
Statistics: define and apply the concept of mean to solve problems	Statistics: The Concept of Mean	
Probability: represent the possible outcomes for a simple probability situation; list and count the number of possible combinations of objects from 3 sets; predict the probability of outcomes of simple experiments and test the predictions	Probability: Simple Probability Situation	

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Mathematics 6+ Goal Structure	Mathematics 6+ DesCartes	Mathematics 6+ Report Names
Number Sense and Operations	**Number Sense and Operations**	**Number Sense and Operations**
Number sense: represent, round, and manipulate integers, rational numbers, irrational numbers, real numbers, and complex numbers*	Number Sense: Represent, Round, Manipulate	
Number sense: locate on the number line, compare, and order integers, rational numbers, irrational numbers, and real numbers*	Number Sense: Locate, Compare, Order	
Number sense: know the concept of absolute value; read, write, and compare rational numbers in scientific notation; understand the concepts of powers and roots, including fractional and negative exponents; *	Number Sense: Absolute Value, Powers, Roots	
Number sense: apply number theory concepts	Number Sense: Number Theory Concepts	
Computation and operations: add and subtract whole numbers, decimals, fractions, integers, rational numbers, real numbers, and complex numbers; demonstrate an understanding and explain the properties of arithmetic operations on rational numbers, real numbers, and complex numbers; select and use appropriate operations — addition, subtraction— to solve problems with rational numbers, including negative rationals*	Computation, Operations: Add and Subtract	
Computation and operations: multiply and divide whole numbers, decimals, fractions, integers, rational and real numbers; multiply and invert complex numbers; demonstrate an understanding and explain the properties of arithmetic operations on rational numbers, real numbers, and complex numbers; select and use appropriate operations — addition, subtraction, multiplication, division — to solve problems with rational numbers, including negative rationals*	Computation, Operations: Multiply and Divide	

Computation and operations: advanced computation; interpret and find equivalent values among integers, rational numbers, and real numbers; recognize and find equivalent ratios; express ratios in several ways; calculate and apply ratios, proportions, rates, scales, and percentages to solve a range of consumer and practical problems; simplify and evaluate numerical expressions with absolute value, powers, and roots, including fractional and negative exponents and use them to solve problems; apply the set operations of union and intersection and the concept of complement, universal set, and disjoint sets, and use them to solve problems, including those involving Venn diagrams	Computation, Operations: Advanced	
Estimation: estimate results of computations with rational and real numbers; determine estimates to a certain stated accuracy; estimate and solve problems with square roots; use a variety of strategies and judge reasonableness of answers*	Estimation: Computations with Real Numbers	

Patterns, Relations, and Algebra	Patterns, Relations, and Algebra	Patterns, Algebra
Patterns, relations, and functions: extend, represent, analyze, and generalize a variety of patterns with tables, graphs, words, and, when possible, symbolic expressions, including repeating, arithmetic and geometric progressions; identify arithmetic and geometric sequences and finite arithmetic and geometric series and use their properties to solve problems, including finding the formula for the general term and the sum, recursively and explicitly; understand functional notation, evaluate a function at a specified point in its domain, and perform operations on functions; recognize functions as polynomial, rational, logarithmic, or exponential, and describe their behavior; recognize translations and scale changes of a given function	Patterns, Relations, and Functions	
Algebraic expressions: replace variables with given values, evaluate, and simplify; interpret and evaluate mathematical expressions that use parentheses; add, subtract, multiply, and divide monomials and polynomials; perform basic arithmetic operations with rational expressions	Algebraic Expressions	
Algebraic equations and inequalities: represent real situations and mathematical relationships with concrete models, tables, graphs, and rules in words and with symbols; solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including quadratic, polynomial, exponential, logarithmic, absolute value, rational, and radical equations; solve everyday problems, applying algebraic and graphical methods, that can be modeled using systems of linear equations or inequalities	Algebraic Equations and Inequalities	

Geometry	Geometry	Geometry
Two- and three-dimensional shapes: identify, describe, classify, compare, and analyze special types of two- and three-dimensional shapes; use properties and theorems about two- and three-dimensional shapes to solve problems; predict and validate the results of partitioning and combining two- and three-dimensional shapes; apply spatial reasoning by recognizing and drawing two-dimensional representations of three-dimensional objects; visualize solid objects and recognize their projections, cross sections, and graph points in 3-D	Two- and Three-Dimensional Shapes	
Symmetry, congruence, similarity, and transformations: identify and describe types of symmetry; predict and validate the results of folding two- and three-dimensional shapes; determine if two figures are congruent; recognize similar figures; use properties and theorems about congruent and similar figures to solve problems; use the properties of right triangles and special triangles to solve problems; define the sine, cosine, and tangent of an acute angle and apply to the solution of problems; explain the identity sin2 □+ cos2 □= 1 and relate to the Pythagorean theorem; predict and describe the results and interpret transformations on figures in the coordinate plane such as translations, reflections, rotations, scale factors, and the results of successive transformations; interpret transformations on figures in the coordinate plane such as translations, reflections, rotations, scale factors, and the results of successive transformations; apply transformations to the solution of problems	Symmetry, Congruence, Similarity, Transformations	
Cartesian coordinate plane: using ordered pairs of numbers and/or letters, graph, locate, and identify points and describe paths on a grid and in the coordinate plane; using rectangular coordinates, calculate midpoints of segments, slopes of lines and segments, and distances between two points, and apply the results to the solutions of problems	Cartesian Coordinate Plane	

Measurement	Measurement	Measurement
Length, capacity, weight, time, angle size, temperature, and money: identify and use appropriate metric and U.S. Customary units and tools to estimate, measure, and solve problems; solve problems involving proportional relationships and units of measurement; identify the value of all U.S. coins and bills; find the value of a collection of coins and bills and different ways to represent an amount of money; use dimensional analysis for unit conversion and to confirm that expressions and equations make sense; relate changes in the measurement (including units) of one attribute of an object to changes in other attributes; describe the effects of approximate error in measurement and rounding on measurements and on computed values from measurements; understand that rate is a measure of one quantity per unit value of another quantity	Length, Capacity, Weight, Time, Angle, Temperature	
Area, perimeter, volume, and surface area: apply formulas and solve problems involving the perimeter, circumference, and area of common geometric figures; find and use measures of lateral areas, surface areas, and volumes of prisms, pyramids, spheres, cylinders, and cones, and relate these measures to each other using formulas; solve problems involving proportional relationships and units of measurement; use dimensional analysis for unit conversion and to confirm that expressions and equations make sense	Area, Perimeter, Volume, and Surface Area	
Data Analysis, Statistics, and Probability	**Data Analysis, Statistics, and Probability**	**Data, Stats, Probability**

Data analysis: collect and organize data using observations, measurements, surveys, or experiments; select, interpret, draw conclusions, and make predictions from various representations of data sets, including tallies, lists, tables, pictographs, Venn diagrams, line graphs, line plots, circle graphs, bar graphs, scatter plot, and stem-and-leaf plots; differentiate between continuous and discrete data and ways to represent them; recognize practices of collecting and displaying data that may bias the presentation or analysis	Data Analysis: Representations of Data Sets	
Statistics: define, apply, and use measures of central tendency (mean, median, and mode), spread (range), and outliers that represent a set of data, including box plots; use these notions to compare different sets of data, to solve problems, and explain how each can be useful to communicate information about a set of data	Statistics: Measures of Central Tendency	
Probability: represent, list, and count the possible outcomes for simple and compound dependent and independent probability situations; use combinatorics, including the Fundamental Counting Principle to find the total number of outcomes possible for independent and dependent events, to calculate the probabilities, and to solve problems, including computing geometric probabilities and probabilities of compound events; predict the probability of outcomes of simple experiments and test the predictions; use data to estimate the probability of future events	Probability: Simple and Compound Events	

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Reading Goal Structure	Reading DesCartes	Reading Report Names
Language Development	**Language Development**	**Development of Language**
Vocabulary and Concept Development: determine what words mean by how they are used in a sentence; determine the meaning of unfamiliar words in context using definitions, examples, and restatement; identify base words and their inflectional forms; classify common words into conceptual categories; recognize compound words; identify and use prefixes and suffixes to determine the meaning of words; identify the meaning of common Greek and Latin roots and affixes to determine the meaning of unfamiliar words; identify common antonyms and synonyms; identify the relevant meaning for a word with multiple meanings; determine meanings of words and alternate word choices using dictionary and thesauri; distinguish between denotative and connotative meanings of words, and interpret the connotative power of words	Vocabulary and Concept Development	

Beginning Reading	Beginning Reading	Beginning Read
Print Concepts; Phonics: recognize that print represents spoken language; start at the top left of the printed page; track words from left to right; identify different parts of a book; recognize that words are separated by spaces; recognize that sentences in print are made up of separate words; identify upper- and lower-case letters; recognize the distinguishing features of a sentence; recognize that a new word is created when a specific letter is changed, added, or removed; decode regularly spelled one- and two-syllable words fluently in decodable text; use knowledge of inflectional endings; read common abbreviations; read words with common spelling patterns; recognize high-frequency and irregular sight words; apply knowledge of basic syllabication rules; apply the most common letter-sound correspondences, including the sounds represented by single letters, consonant blends, consonant digraphs, vowel digraphs, and diphthongs; recognize regular plurals and irregular plurals; identify the two words that make up a contraction; recognize common irregularly spelled words by sight	Print Concepts; Phonics	

Informational Text	Informational Text	Informational Text
Expository; Document and Procedure: analyze implied or subtly stated interrelationships between and among ideas and concepts within expository text, such as cause and effect, problem and solution, comparison and contrast, and proposition and support; discern which details support important points in challenging passages; make relevant inferences, comparisons, or generalizations that reveal a feeling for the subtleties in relationships between and among ideas in passages; summarize the purpose and main ideas in passages; identify and analyze the author's stated purpose, main ideas, supporting ideas, and supporting evidence; support conclusions drawn from ideas and concepts in informational and technical passages; analyze how the patterns of organization, hierarchic structures, repetition of key ideas, syntax, and word choice influence the clarity and understandability of document and procedural text; evaluate the logic within document and procedural text such as manuals, product support materials, and contracts; analyze the graphic representations within technical research documents for their clarity and relevance; analyze the structures of document and procedural text to determine how authors use these features and textual elements to achieve their purposes; synthesize information from multiple sources to draw conclusions about the ideas presented; describe the objective of document and procedural text; evaluate the adequacy of details and facts to achieve a specific purpose; respond appropriately to a set of instructions; determine what information is missing or extraneous in document and procedural text; use information from text and text features to determine the sequence of activities needed to carry out a procedure	Expository; Document and Procedure	

Argument and Persuasive: evaluate the effectiveness of the logic and use of evidence in an author's argument; evaluate the effectiveness of an author's use of rhetorical devices in a persuasive argument; identify unexamined assumptions in an argument; identify an author's implicit and stated assumptions about an issue based on evidence in the selection; recognize common fallacies such as the appeal to pity, the personal attack, double-speak; the appeal to common opinion, and the false dichotomy; recognize the use or abuse of paradox and irony in text; distinguish facts from opinions; identify ways to detect bias in persuasive text; distinguish a stereotype from a generalization; describe the facts and evidence used to support an argument	Argument and Persuasive	

Literary Text	Literary Text	Literary Text
Genre; Theme; Fiction; Poetry; Drama: identify and analyze the characteristics of various genres as forms with distinct characteristics and purposes; analyze characteristics of subgenres; compare and contrast works within a creative genre that deal with similar themes; identify themes as moral lessons in folktales and fables; identify the theme of a literary selection; apply the knowledge that theme, whether stated or implied, refers to the basic meaning of a literary text; analyze the way in which the theme or meaning of a selection represents a view or comment on life; recognize multiple themes in a text and supply evidence from the selection; analyze, evaluate, and apply knowledge of how authors use techniques and elements in fiction for rhetorical and aesthetic purposes to engage the audience; analyze such elements in fiction as foreshadowing, flashbacks, suspense; analyze the ways in which a narrator's point of view and language affect interpretation, tone, characterization, and plot; determine a character's traits by what he/she says about himself/herself; determine how central characters' qualities influence the resolution of the conflict; interpret a character's traits, emotions, or motivations, and provide supporting evidence from a text; analyze the way characters change or interact with each other over time and give supporting evidence from the text; identify who is telling the story or speaking in a poem; contrast points of view in a story; analyze the influence of setting on the problem and resolution; analyze plot development to determine whether and how conflicts are resolved; identify the plot and its components; provide examples of all aspects of the setting in a story; identify and analyze how dramatic conventions support, interpret, and enhance dramatic text; identify author's use of dialogue and stage directions; identify the structural elements	Genre; Theme; Fiction; Poetry; Drama	

particular to dramatic literature, such as scenes, acts, and a cast of characters; identify and analyze the effects of the form and dramatic structure of ballads, elegies, sonnets, heroic couplets, epics, odes, lyrics, narrative poems, free verse, haiku; identify rhyme, rhythm, repetition, and sensual images in poetry		
Style and Language: interpret figurative language, including imagery, personification, figures of speech, hyperbole, symbolism, allusion, and allegory, with emphasis on how the writer uses language to evoke readers' emotions; analyze patterns of imagery or symbolism and connect them to theme and/or tone and mood; explain how tone, mood, style, and "sound" of language are used for specific rhetorical, aesthetic purposes; analyze an author's use of figurative language in a poetry selection; identify and analyze importance of shades of meaning in determining word choice in a piece of literature; identify and draw conclusions about the author's use of sensory details, imagery, and figurative language	Style and Language	

Language Usage Goal Structure	Language Usage DesCartes	Language Usage Report Names
Imaginative Writing	**Imaginative Writing**	**Imaginative Writing**
Poetry and Prose Genres: write poems using a range of forms and techniques (e.g., structural elements, sounds, figurative language, and graphics); make distinctions among fiction, nonfiction, and dramatic literature, and use these genres selectively to produce stories or scripts; write stories that organize plot events in an order that leads to a climax; write a short story that narrates a sequence of events; write stories that demonstrate careful placement of descriptive details about setting, characters, and events; write a short story that locates scenes and incidents in specific places; write well-organized stories that include details that contribute to a definite mood or tone; write a short story that develops the narrative elements with concrete sensory details and language (e.g., visual details of scenes; descriptions of sounds, smells, specific actions; movements and gestures; feelings of characters); write well-organized stories that include sensory details and concrete language to develop plot and character; write well-organized stories that include explicit and implicit themes; write well-organized stories that include a range of narrative strategies such as dialogue and suspense	Poetry and Prose Genres	
Expository Writing and Revision	**Expository Writing and Revision**	**Expository Writing**

Expository Writing: create paragraphs that establish and support a central idea in a topic sentence at or near the beginning of the paragraph; include supporting sentences with simple facts, details, and explanations; present effective introductions and concluding paragraphs; write coherent multi-paragraph compositions (including compare-and-contrast essays) that include a thesis statement; use logical organization; make effective use of detail and rhetorical devices; include variety in sentence structure and transition sentences to link paragraphs	Expository Writing	
Types of Expository Writing: write personal and formal letters that include the date, salutation, body, closing, and signature write personal and formal letters that use appropriate language for different audiences and purposes (letter to a friend, thank you note, invitation); produce functional texts (e.g., memos, e-mails, correspondence, project plans, proposals, bios) that address audience needs; state purpose and context; adopt a customary format, including proper salutation, closing, and signature when appropriate; write content-based research reports that organize and record information on charts, maps, and graphs for use as visuals; use quotations, footnotes or endnotes, and a standard bibliographic format; write persuasive essays that use a logical organizational pattern; structure ideas and arguments in a sustained and logical fashion; include a thesis or purpose of the paper; use specific rhetorical devices to back up assertions (e.g., via an appeal to logic through reasoning; via an appeal to emotion or ethical belief; or by personal anecdote, case study, or analogy); and contain effective introductory and concluding paragraphs that guide and inform the reader's understanding of key ideas and evidence	Types of Expository Writing	

Revision: revise writing to improve style, word choice, sentence variety, and subtlety of meaning after rethinking how well questions of purpose, audience, and genre have been addressed; to improve the logic and coherence of the organization and controlling perspective	Revision	
English Language Conventions: Grammar, Usage, and Sentence Structure	**Grammar, Usage, Sentence Structure**	**Grammar and Sentences**
Grammar and Usage: identify nominalized, adjectival, and adverbial clauses; identify and employ correct usage for prepositions and coordinating conjunctions; identify and correctly use clauses, phrases, usage; recognize and use verbals: participles, gerunds, and infinitives; identify and use correct and consistent verb tense and subject-verb agreement; identify and employ correct usage for troublesome verbs; identify and employ correct usage for nominative, objective, and possessive pronouns; identify and use appropriate noun-pronoun agreement; pronoun/antecedent agreement and clear pronoun reference; identify and employ correct usage of possessives; identify and employ correct usage for indefinite pronouns; use properly placed modifiers and the active voice; identify and employ correct usage for comparative and superlative adjectives; identify and employ correct usage for adverbs; identify eight basic parts of speech; identify and employ correct usage of singular and plural regular nouns; identify and employ correct usage for single and plural irregular nouns	Grammar and Usage	

Sentence Structure and Types of Sentences: recognize the subject-predicate relationship in sentences; make effective use of parallel structure; avoid run-on sentences, comma splices, and sentence fragments; identify all types and structures of sentences; distinguish between complete and incomplete sentences, and recognize and use correct word order in written sentences; demonstrate understanding of and use complete declarative, interrogative, imperative, and exclamatory sentences correctly in writing; combine short related sentences with appositives, participial phrases, adjectives, adverbs, and prepositional phrases; expand or reduce sentences; identify and use simple, compound, complex, and compound-complex sentences	Sentence Structure and Types of Sentences	
English Language Conventions: Punctuation, Spelling, and Capitalization	**Punctuation, Spelling, Capitalization**	**Mechanics**
Punctuation: identify and use correct punctuation, including colon to separate hours and minutes and to introduce a list; quotation marks around exact words of speaker and names of poems, songs, and short stories; parentheses; commas in compound sentences; and paragraph indentations; identify and use correct punctuation, including dates, locations, and addresses; apostrophes in possessives and contractions; and underlining, quotations, or italics to identify titles; identify and use hyphens, dashes, brackets, or semicolons between two clauses of a compound sentence not joined by a conjunction; use ending punctuation, correct internal punctuation, apostrophes for contractions and possessives, and correct punctuation for quotations	Punctuation	

Spelling: spell frequently misspelled words correctly according to usage; spell correctly, including commonly confused words and irregular plurals; spell derivatives by applying knowledge of bases and affixes; spell base words, inflections such as those that change tense or number, suffixes such as -able or -less, and prefixes such as re- or un-; spell syllable constructions (closed, open, consonant before); spell multi-syllabic words using regularly spelled phonogram patterns; spell one-syllable words with blends and orthographic patterns	Spelling	
Capitalization: use correct capitalization; capitalize names of magazines, newspapers, works of art, musical compositions, names of organizations, and the first word in quotations; capitalize geographical names, holidays, historical periods, and special events; identify correct capitalization for names and places and correct capitalization and commas in dates; capitalize all proper nouns, words at the beginning of sentences and greetings, months and days of the week, and titles and initials of people; capitalize the first word of a sentence and the pronoun "I"	Capitalization	