Measures of Academic Progress (MAP) Common Core-Aligned Version 2

The NWEA Goal Structure is a document that represents the content and structure of a standards document. Goal structures are created through an alignment process that links 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 content 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 standards document 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 names from the Goal Structure may be shortened for technical reasons to create the headings in reports.

The items in NWEA's item bank are indexed by specific skills or concepts. This indexing system is referred to as the Learning Continuum Index and each concept or skill is called a Learning Continuum statement (LC). NWEA has created a custom test pool reflecting the intent of the Common Core State Standards by completing a custom alignment. Content specialists in each subject area aligned LCs from the NWEA Learning Continuum Index to each grade-level benchmark in the Common Core State Standards. This alignment created an initial pool of items. Next, content specialists conducted an item-level review by evaluating each item from the initial pool against the Common Core grade-level benchmarks. On completing the custom alignment, each grade level benchmark was linked to a set of items. In the test building process, each standard is associated with one goal and sub-goal in the Common Core Goal Structure for each subject area. In this manner, we built custom test pools for the MAP-based Common Core Assessment for math, reading, and language usage.

Mathematics 2-5 Goal Structure	Mathematics 2-5 DesCartes	Mathematics 2-5 Report Names
Operations and Algebraic Thinking	**Operations and Algebraic Thinking**	**Algebraic Thinking**
Represent and solve problems involving addition and subtraction: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from; understand and apply properties of operations and the relationship between addition and subtraction; work with addition and subtraction equations; decompose numbers into pairs in more than one way; understand subtraction as an unknown-addend problem.	Add & Subtract: Represent and Solve Problems	

Represent and solve problems involving multiplication and division: Work with equal groups of objects to gain foundations for multiplication; understand properties of multiplication and the relationship between multiplication and division; use multiplication and division to solve word problems by using drawings and equations with a symbol for the unknown number to represent the problem; apply properties of operations as strategies to multiply and divide.	Multiply & Divide: Represent and Solve Problems	
Solve problems involving the four operations, and identify and explain patterns in arithmetic: Use the four operations with whole numbers to solve problems; generate and analyze patterns and relationships; gain familiarity with factors and multiples; write and interpret numerical expressions; use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	Solve Problems & Analyze Patterns & Relationships	
Number and Operations in Base Ten	**Number and Operations in Base Ten**	**Number and Operations**
Generalize place value understanding for multi-digit whole numbers: Know number names and the count sequence; understand the relationship between numbers and quantities; read and write multi-digit whole numbers and decimals to thousandths using base-ten numerals, number names, and expanded form; use place value understanding to round multi-digit whole numbers and decimals to any place; compare two multi-digit numbers and decimals to thousandths based on meanings of the digits in each place.	Understand Place Value, Counting & Cardinality	
Perform operations with multi-digit whole numbers: Fluently add, subtract, and multiply multi-digit whole numbers using the standard algorithm; find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.	Operations with Multi-digit Whole Numbers	

Perform operations with decimals to hundredths: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	Operations with Decimals	
Number & Operations-Fractions	**Number & Operations: Fractions**	**Fractions**
Develop understanding of fractions as numbers: Extend understanding of fraction equivalence and ordering; understand decimal notation for fractions, and compare decimal fractions; understand a fraction as a number on the number line.	Develop Understanding of Fractions as Numbers	
Apply and extend previous understandings of multiplication and division to multiply and divide fractions and use equivalent fractions as a strategy to add and subtract fractions: Add and subtract fractions with the same and unlike denominators; apply and extend previous understandings of multiplication and division to multiply a fraction or whole number by a fraction and divide unit fractions by whole numbers and whole numbers by unit fractions; solve word problems involving fractions.	Fractions: Add, Subtract, Multiply & Divide	
Measurement and Data	**Measurement and Data**	**Measurement and Data**
Solve problems involving measurement and estimation of intervals of time, liquid volumes, masses of objects, length, money, and conversion of measurements: Describe and compare measurable attributes; classify objects and count the number of objects in each category; measure and estimate lengths in standard units; work with time and money; convert like measurement units within a given measurement system.	Solve Problems Involving Measurement & Conversion	

Understand concepts of area, concepts of angle measurement, and concepts of volume: Relate area and volume to multiplication and to addition; measure angles; recognize perimeter as an attribute of plane figures and distinguish between linear and area measures; apply the area and perimeter formulas for rectangles in real world and mathematical problems; solve real world and mathematical problems involving perimeters of polygons; solve real world and mathematical problems involving volume.	Geometric Measurement	
Organize, represent, and interpret data: Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another; make a line plot to display a data set of measurements in fractions of a unit; draw a scaled picture graph and a scaled bar graph to represent a data set with several categories; solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.	Represent and Interpret Data	
Geometry	**Geometry**	**Geometry**
Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres): Analyze, compare, create, and compose shapes; understand that shapes in different categories may share attributes and that the shared attributes can define a larger category; understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category; classify two-dimensional figures in a hierarchy based on properties.	Reason with Shapes and Their Attributes	

Draw and identify lines and angles, classify shapes by properties of their lines and angles, and graph points on the coordinate plane to solve real-world and mathematical problems: Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines and identify these in two-dimensional figures; recognize a line of symmetry for a two-dimensional figure; represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane.	Identify Lines & Angles and Graph Points	

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Mathematics 6+ Goal Structure	Mathematics 6+ DesCartes	Mathematics 6+ Report Names
Algebra, Functions, Expressions, & Equations	**Algebra, Functions, Expressions & Equations**	**Algebra and Functions**
Apply and extend previous understandings of arithmetic to algebraic expressions: Use properties of operations to generate equivalent expressions; write and evaluate numerical expressions involving whole-number exponents; work with radicals and integer exponents; interpret the structure of expressions; write expressions in equivalent forms to solve problems; perform arithmetic operations on polynomials; rewrite rational expressions; perform operations with numbers expressed in scientific notation.	Expressions & Properties of Operations	
Understand solving equations as a process of reasoning: Solve equations and inequalities in one variable; solve real-life and mathematical problems using numerical and algebraic expressions and equations; analyze and solve linear equations; understand the connections between proportional relationships, lines, and linear equations; solve systems of equations; represent and solve equations and inequalities graphically; create equations that describe numbers or relationships	Solve Problems and Use Equations & Inequalities	
Use functions to model relationships between quantities: Define, evaluate, and compare functions; understand the concept of a function and use function notation; interpret functions that arise in applications in terms of the context; analyze functions using different representations; build a function that models a relationship between two quantities; build new functions from existing functions; construct and compare linear, quadratic, and exponential models and solve problems; model periodic phenomena with trigonometric functions.	Use Functions to Model Relationships	

The Real & Complex Number Systems	The Real & Complex Number Systems	Real & Complex Number Systems
Analyze proportional relationships and use them to solve real-world and mathematical problems: Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities; use ratio and rate reasoning to solve real-world and mathematical problems; recognize and represent proportional relationships between quantities; use proportional relationships to solve multistep ratio and percent problems.	Ratios and Proportional Relationships	
Apply and extend previous understandings of operations: Divide fractions by fractions; compute fluently with multi-digit numbers and find common factors and multiples; add, subtract, multiply, and divide rational numbers; perform arithmetic operations with complex numbers; represent complex numbers and their operations on the complex plane; perform operations on vectors; perform operations on matrices and use matrices in applications.	Perform Operations	
Apply and extend previous understandings of numbers to the system of rational numbers: Know that there are numbers that are not rational, and approximate them by rational numbers; extend the properties of exponents to rational exponents; use properties of rational and irrational numbers; use complex numbers in polynomial identities and equations; represent and model with vector quantities; reason quantitatively and use units to solve problems.	Extend and Use Properties	

Geometry	Geometry	Geometry
Solve real-life and mathematical problems involving angle measure, area, surface area, and volume: Describe geometrical figures and the relationships between them; understand and apply the Pythagorean Theorem and theorems about circles; make geometric constructions; translate between the geometric description and the equation for a conic section; use volume formulas to solve problems; visualize relationships between two-dimensional and three-dimensional objects; apply geometric concepts in modeling situations.	Geometric Measurement and Dimension	
Understand congruence and similarity using physical models: Experiment with transformations in the plane; understand congruence in terms of rigid motions; understand similarity in terms of similarity transformations; prove theorems involving similarity; define trigonometric ratios and solve problems involving right triangles; apply trigonometry to general triangles.	Congruence, Similarity, Transformations, & Trig	
Statistics and Probability	**Statistics and Probability**	**Statistics and Probability**
Summarize, represent, and interpret data on two categorical and quantitative variables: Develop understanding of statistical variability; use measures of center and measures of variability; summarize and describe distributions; draw informal comparative inferences about two populations; investigate patterns of association in bivariate data; interpret linear models; represent data with plots on the real number line (dot plots, histograms, and box plots).	Interpreting Categorical and Quantitative Data	

Use random sampling and the rules of probability: Develop, use, and evaluate probability models; understand and evaluate random processes underlying statistical experiments; make inferences and justify conclusions from sample surveys, experiments, and observational studies; understand independence and conditional probability and use them to interpret data; compute probabilities of compound events; calculate expected values and use them to solve problems; use probability to evaluate outcomes of decisions.	Using Sampling and Probability to Make Decisions	

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Reading Goal Structure	Reading DesCartes	Reading Report Names
Literature	**Literature**	**Literature**
Understand explicitly stated ideas; cite textual evidence, make and support inferences and conclusions; determine central ideas or themes, retell and summarize with key supporting details and ideas; analyze development and interaction of individuals, events and ideas; identify and describe characters, settings, and major events in a story, using key details.	Literature: Key Ideas and Details	
Analyze how word choice (word sounds [rhyme, alliteration]; analogies; allusion; multiple-meaning words; fresh, engaging, or beautiful language) shapes meaning or tone; analyze text structure, including the relationship of parts to each other and to the whole, the ordering of events, and devices such as flashback and foreshadowing; analyze point of view and purpose; integrate information from illustrations with information in the text; analyze how two texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	Literature: Craft and Structure	
Informational Text	**Informational Text**	**Informational Text**
Understand explicitly stated ideas; cite textual evidence, make inferences, support conclusions; determine central ideas or themes, retell and summarize with key supporting details and ideas; analyze development and interaction of individuals, events and ideas.	Informational Text: Key Ideas and Details	

Analyze how word choice (e.g., the language of a court opinion vs that of a newspaper, analogies, allusions) affects the meaning and tone of a text; analyze how authors use and refine the meaning of key terms; analyze and evaluate text structure, including the relationship of parts to each other and to the whole, the development and refinement of ideas or claims, and the effectiveness of a given structure for an exposition or argument.	Informational Text: Craft and Structure	
Foundational Skills and Vocabulary Acquisition and Use	**Foundational Skills and Vocabulary Acquisition and Use**	**Basic Skills & Vocabulary**
Demonstrate understanding of the organization and basic features of print. Know and apply grade-level phonics and word analysis skills in decoding words.	Print Concepts, Phonics, and Word Recognition	
Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.	Context Clues and Reference	
Demonstrate understanding of word relationships and nuances in word meanings. Use the relationship between particular words (e.g., synonyms, antonyms, homographs, cause/effect, part/whole, item/category, analogy) to better understand each of the words.	Word Relationships and Nuance	

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Language Usage Goal Structure	Language Usage DesCartes	Language Usage Report Names
Writing: Purposes; Language: Plan, Develop, Edit	**Writing: Purposes; Language: Plan, Develop, Edit**	**Writing; Plan, Develop, Edit**
Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately; Introduce a topic; organize complex ideas, concepts, and information; include formatting (e.g., headings), graphics (e.g., figures, tables); Develop the topic thoroughly by selecting the most significant, well-chosen, and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic; Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Write Opinion, Informative, Explanatory Texts	
Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences; Engage and orient the reader by setting out a problem, situation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines; Use a variety of techniques to manage sequence of events so that they signal shifts from one time frame or setting to another and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution).; Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.	Write Narratives; Use Details, Event Sequences	

Develop writing as needed by planning, focusing on addressing what is most significant for a specific purpose and audience; Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, assess the strengths and limitations of each source in terms of the task, purpose, and audience, and integrate the information while avoiding plagiarism.	Plan for Purpose, Audience; Conduct Research	
Develop and strengthen writing as needed by revising, editing, rewriting, or trying a new approach; Choose words and phrases to convey ideas precisely; Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy; Provide a conclusion that follows from the narrated experiences or events.	Develop Writing; Revise, Edit, Convey Ideas	

Language: Grammar and Usage	Language: Grammar and Usage	Language: Grammar, Usage
Explain the function of nouns, relative, reflexive, vague, personal, possessive, indefinite, and intensive pronouns, verbs, adjectives, adverbs, and verbals (gerunds, participles, infinitives); Recognize and correct inappropriate shifts in pronoun number, case, and person; Use common, proper, collective, abstract, regular, irregular, singular, plural, and possessive nouns; Form and use verbs in the active and passive voice; Use verb tense to convey various times, sequences, states, and conditions and modal auxiliaries (e.g., can, may, must) to convey various conditions; Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood; Correctly use frequently confused words (e.g., to, too, two; there, their); Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences; Use frequently occurring conjunctions (e.g., and, but, or, so, because); Use coordinating and subordinating conjunctions; Use correlative conjunctions (e.g., either/or, neither/nor); determiners (e.g., articles, demonstratives) and the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with, during, beyond, toward) ; Understand and use question words (interrogatives) (e.g., who, what, where, when, why, how).	Parts of Speech	
Use parallel structure; Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial), recognizing and correcting misplaced and dangling modifiers; Ensure subject-verb and pronoun-antecedent agreement.	Phrases, Clauses, and Agreement	

Produce, expand, and rearrange complete simple and compound, complex, declarative, interrogative, imperative, and exclamatory sentences in response to prompts; Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons; Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.	Sentences	
Language: Capitalization, Punctuation, Spelling	**Language: Capitalization, Punctuation, Spelling**	**Capitalize, Spell, Punctuate**
Capitalize the first word in a sentence and the pronoun I, dates and names of people, holidays, product names, geographic names, and appropriate words in titles.	Capitalization	
Use punctuation (comma, ellipsis, dash) to indicate a pause or break; Observe hyphenation conventions; Use an ellipsis to indicate an omission; Use end punctuation for sentences; Use punctuation to separate items in a series; Use a comma before a coordinating conjunction in a compound sentence, in greetings and closings of letters, in addresses, in dates, to separate an introductory element from the rest of the sentence, to separate coordinate adjectives; Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements; Use an apostrophe to form contractions and frequently occurring possessives; Use commas and quotation marks to mark direct speech and quotations from a text; Use a semicolon to link two or more closely related independent clauses; Use a colon to introduce a list or quotation; Use underlining, quotation marks, or italics to indicate titles of works.	Punctuation	

Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words; Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness); Spell simple words phonetically, drawing on knowledge of sound-letter relationships; Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words; Correctly use frequently confused words (e.g., to, too, two; there, their).	Spelling	