

# Measures of Academic Progress (MAP) Oregon State-Aligned Version 6

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 &amp; Operations</b>	<b>Number &amp; Operations</b>	<b>Number &amp; Operations</b>
Represent, compare, and order whole numbers; develop an understanding of whole number relationships, including grouping in tens and ones; develop an understanding of the base-ten numeration system and place-value concepts; identify, duplicate, and extend simple number patterns and sequential and growing patterns; represent, analyze and extend number patterns using rules that involve multiplication and/or addition.*	Whole Numbers: Represent, Place Value & Patterns	
Develop understandings of addition and subtraction and strategies for basic addition facts and related subtraction facts; develop fluency with addition facts and related subtraction facts, and with multi-digit addition and subtraction; select and apply efficient methods to estimate sums or calculate them mentally depending on the numbers and context involved.*	Whole Numbers: Addition & Subtraction	



Develop understandings of multiplication and division, and strategies for basic multiplication facts and related division facts; develop fluency with multiplication facts and related division facts, and with multi-digit whole number multiplication; develop an understanding of and fluency with division of whole numbers; select and use appropriate estimation strategies for multiplication and division to calculate mentally based on the problem situation when computing with whole numbers.*	Whole Numbers: Multiplication & Division	
Develop an understanding of fractions and fraction equivalence; develop an understanding of decimals, including the connections between fractions and decimals; compare and order fractions and decimals.*	Fractions & Decimals: Represent, Compare, Order	
Develop an understanding of and fluency with addition and subtraction of fractions and decimals; solve problems involving the addition and subtraction of fractions and decimals; represent money amounts, and apply to situations involving purchasing ability and making change; determine the value of mixed collections of coins.*	Fractions, Decimals & Money: Operations	
<b>Geometry</b>	<b>Geometry</b>	<b>Geometry</b>
Describe shapes and space; describe and analyze properties of two-dimensional shapes; describe three-dimensional shapes and analyze their properties; describe the results of decomposing, combining, and transforming polygons to make other polygons; identify and classify triangles by their angles and sides; determine if angles are obtuse and acute; recognize and create shapes that are congruent or have symmetry.	2-D & 3-D Shapes: Identify, Describe & Analyze	



<b>Measurement</b>	<b>Measurement</b>	<b>Measurement</b>
Compare and order objects by attributes; develop an understanding of linear measurement and facility in measuring; choose an appropriate measurement unit, compare that unit to the object, and report the number of units; demonstrate an understanding of time and use of time relationships; tell time in increments of five minutes using analog and digital clocks.	Length, Tools, Units, Time	
Develop an understanding of area and determine the areas of two-dimensional shapes; determine an appropriate unit, tool, or strategy to find the perimeter of polygons; determine the appropriate units, strategies, and tools for solving problems that involve measuring volume; find surface areas and volumes of rectangular prisms.	Perimeter, Area, Volume	
<b>Data Analysis &amp; Probability</b>	<b>Data Analysis &amp; Probability</b>	<b>Data Analysis &amp; Probability</b>
Analyze frequency tables, bar graphs, picture graphs, and line plots; construct and analyze line and circle graphs; use ordered pairs on coordinate graphs to specify locations and describe paths.	Construct, Analyze Data & Coordinates	

\*Denotes that calculator use is not permitted in this goal or sub-goal of the test.

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Mathematics 6+ Goal Structure	Mathematics 6+ DesCartes	Mathematics 6+ Report Names
Number & Operations	Number & Operations	Number & Operations
Demonstrate a deep understanding of real numbers: Determine decimal and percent equivalents for common fractions; compare, order, and locate real numbers on a number line; evaluate and determine equivalent numeric expressions with real numbers that may also include absolute value, integer exponents, square roots, pi, and/or scientific notation; express square roots in equivalent radical form and their decimal approximations. *	Real Numbers: Representations & Relationships	
Connect ratio, rate, and percent to multiplication and division; develop an understanding of and apply proportionality: Develop, analyze, and apply the meaning of ratio, rate, and percent to solve problems; apply proportionality to solve problems.	Ratio, Rates, Percent & Proportions	
Develop an understanding of and fluency with multiplication and division of fractions and decimals: Select and use appropriate strategies to estimate fraction and decimal products and quotients; use and analyze a variety of strategies for solving problems with multiplication and division of fractions; use and analyze a variety of strategies for solving problems with multiplication and division of decimals. *	Fractions & Decimals: Operations	
Develop an understanding of operations on real numbers: Develop, analyze, and apply models, strategies, and procedures to compute with integers; compute with numeric expressions with real numbers that may also include grouping symbols, absolute value, integer exponents, square roots, pi, and/or scientific notation; use models and referents to explore and estimate square roots; apply the properties of operations to simplify calculations. *	Real Numbers: Properties & Operations	



<b>Geometry</b>	<b>Geometry</b>	<b>Geometry</b>
<p>Transform and analyze figures: Recognize and identify line and rotational symmetry of two-dimensional figures; identify and perform single and composite transformations of geometric figures in a plane; apply slope, distance, and midpoint formulas to solve problems in a coordinate plane; apply the Pythagorean Theorem to find distances in a variety of contexts; use trigonometric ratios (sine, cosine and tangent) to solve for unknown lengths in right triangles.</p>	<p>Transformation, Coordinate Geometry &amp; Trigonometry</p>	
<p>Apply properties of two-dimensional figures and three-dimensional solids: Apply theorems, properties, and definitions to classify quadrilaterals; determine if three given lengths form a triangle; if the given lengths form a triangle, classify it as acute, right, or obtuse; identify, classify, model, and label representations of three-dimensional objects from nets and from different perspectives.</p>	<p>2-D &amp; 3-D Shapes: Identify, Describe &amp; Analyze</p>	
<p>Develop an understanding of and apply proportionality; analyze two- and three-dimensional spaces and figures by using distance and angle: Apply theorems, properties, and definitions to determine, identify, and justify congruency or similarity of triangles and determine missing sides and angles; use properties of parallel lines, transversals, and angles; circles, arcs and sectors, apply formulas, theorems and properties of chords, tangents, and angles.</p>	<p>Similarity, Congruence, Angles &amp; Circles</p>	
<b>Measurement</b>	<b>Measurement</b>	<b>Measurement</b>
<p>Develop an understanding of and apply proportionality: Convert among different units of measurement to solve problems, including rates.</p>	<p>Conversions</p>	

<p>Develop an understanding of and use formulas to determine surface area and volume: Determine the missing dimensions, angles, or area of regular polygons, quadrilaterals, triangles, circles, composite shapes, and shaded regions; identify and apply formulas for missing dimensions, surface area and volume of spheres; right solids, including rectangular prisms and pyramids; cones; and cylinders; and compositions thereof; solve related context-based problems; solve problems involving areas and circumferences of circles.</p>	<p>Perimeter, Area, Volume &amp; Surface Area</p>	
<p><b>Data Analysis &amp; Probability</b></p>	<p><b>Data Analysis &amp; Probability</b></p>	<p><b>Data Analysis &amp; Probability</b></p>
<p>Analyze and summarize data sets: Organize and display data to pose and answer questions; and justify the reasonableness of the choice of display; construct, analyze, and interpret tables, scatter plots, frequency distributions, and histograms of data sets; determine whether there is a (n) linear, quadratic, exponential, or no trend; if linear, determine if there is a positive or negative correlation among the data; and, if appropriate, sketch a line of best fit, and use it to make predictions.</p>	<p>Data Display &amp; Interpretation</p>	
<p>Analyze and interpret empirical data: Interpret and analyze displays of data and descriptive statistics; compare and draw conclusions about two or more data sets using graphical displays or central tendencies and range; compare descriptive statistics and evaluate how changes in data affect those statistics; use sample data to make predictions regarding a population; describe the strengths and limitations of a particular statistical measure, and justify or critique its use in a given situation.</p>	<p>Descriptive Statistics &amp; Interpretation</p>	



Apply basic principles of probability: Represent probabilities as ratios, decimals, and percents; determine simple probabilities, both experimental and theoretical; identify, analyze, and use experimental and theoretical probability to estimate and calculate the probability of simple events; determine the sample space of a probability experiment; compute and interpret probabilities for independent, dependent, complementary, and compound events using various methods.	Probability	
<b>Algebra</b>	<b>Algebra</b>	<b>Algebra</b>
Write, interpret, and use mathematical expressions and equations: Develop, identify, and/or justify equivalent algebraic expressions, equations, and inequalities using the properties of exponents, equality and inequality, and properties; develop the meanings and uses of variables; write, evaluate, and use expressions and formulas to solve problems; represent, analyze, and determine relationships and patterns using tables, graphs, words and when possible, symbols.	Patterns, Evaluate & Simplify	
Use linear equations and functions to represent relationships and solve linear equations, linear inequalities, systems of linear equations, and systems of linear inequalities: Represent proportional relationships with coordinate graphs and tables, and identify unit rate as the slope of the related line; translate among, identify, construct, extend, and analyze linear patterns and functional relationships that are expressed contextually, numerically, algebraically, graphically, in tables, or using geometric figures.	Linear Functions	
Use quadratic and exponential equations and functions to represent relationships: Compare the characteristics of and distinguish among linear, quadratic, and exponential functions that are expressed in a table of values, a sequence, a context, algebraically, and/or graphically; given a quadratic equation determine and interpret the roots, the vertex of the parabola and an equation of its axis of symmetry; factor quadratic expressions.	Quadratic & Exponential Functions	

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Reading Goal Structure	Reading DesCartes	Reading Report Names
<b>Decoding and Word Recognition; Vocabulary</b>	<b>Decoding, Word Recognition; Vocabulary</b>	<b>Decoding and Vocabulary</b>
Concepts of print, decoding: identify letters, words, and sentences; identify the front cover, back cover, and title page of a book; recognize that sentences start with capital letters and end with punctuation; use letter-sound correspondence knowledge to sound out unknown words; recognize and use knowledge of spelling patterns when reading; apply knowledge of basic syllabication rules when reading	Concepts of Print, Decoding	
Determine meanings of words using contextual and structural clues.	Determine Meanings of Words	
Understand and explain frequently used synonyms, antonyms, and homographs: distinguish between the denotative and connotative meanings of words; use general dictionaries, specialized dictionaries, glossaries, thesauruses, or related references to increase vocabulary	Understand Synonyms, Antonyms, Homonyms	
<b>Read Informational and Narrative Text</b>	<b>Read Informational and Narrative Text</b>	<b>Read Inform and Narr Text</b>
Understand a variety of comprehension strategies: summarizing, responding to essential questions, and making prediction	Understand a Variety of Comprehension Strategies	

<b>Informational Text: Read to Perform a Task, Demonstrate General Understanding, Develop an Interpretation, Examine Content and Structure</b>	<b>Informational Text: Understand, Interpret Content</b>	<b>Inform Text: Interpret</b>
Read texts, main idea, sequence of events, fact/opinion: read a variety of informational texts and identify and summarize sequence of events, main idea, fact, supporting details, and opinions; read textbooks, biographical sketches, letters, diaries, directions, procedures, magazines, essays, primary source historical documents, editorials, news stories, periodicals, bus routes, catalogs, technical directions, consumer, workplace, and public documents; identify and/or summarize sequence of events, main ideas, facts, supporting details, and opinions in informational and practical selections	Read Texts, Main Idea, Sequences, Fact-Opinion	
Inferences, conclusions, locate information, directions: infer an author's unstated meaning and draw conclusions about an author's stated meaning; locate and synthesize information found in charts, tables, titles, chapter headings, illustrations, captions, indexes, graphs, charts, and diagrams to reach supported conclusions; analyze the structure and format of job and consumer-related materials and explain how the features support the intended purposes; follow simple multiple-step written instructions	Inferences, Conclusions, Locate Information	
Author's purpose, persuasive texts, bias: draw conclusions about the author's purpose based on evidence in the text; recognize and analyze characteristics of persuasive text; evaluate the way in which the author's intent or bias affects the text	Author's Purpose, Persuasive Texts, Bias	
Organizational structure: analyze text to determine the type and purpose of the organizational structure; distinguish text that is biographical and autobiographical	Organizational Structure	

<b>Literary Text: Read Literary Text, Demonstrate General Understanding, Develop an Interpretation, Examine Content and Structure</b>	<b>Literary Text: Understand, Interpret Content</b>	<b>Literary Text: Interpret</b>
Read text and respond to a wide variety of significant works of literature, including poetry, fiction, non-fiction, and drama	Read and Respond to Sig Works of Literature	
Identify sequence of events, main ideas, and supporting details in literary selections: draw inferences, conclusions or generalizations about text, and support them with textual evidence	Identify Sequence of Events, Main Ideas, Details	
Speaker, plot, setting, character, theme: identify the speaker and recognize the difference between first and third-person narration; identify the main events of the plot, their causes, and the setting; determine characters' traits by what the characters say in narration and dialogue; analyze interactions between characters in a literary text; identify the actions and motives of characters in a work of fiction; identify themes in literary works	Speaker, Plot, Setting, Characters, Theme	
Identify various literary devices, including figurative language, imagery, allegory, and symbolism: evaluate the significance of the devices; define how tone or meaning is conveyed in poetry through word choice, figurative language, sentence structure, line length, punctuation, rhythm, repetition, and rhyme; interpret and evaluate the impact of subtleties, contradictions, and ironies in a text	Identify Various Literary Devices	
Types of fiction, author's purpose: differentiate among the different types of fiction, and apply knowledge of the major characteristics of each; analyze an author's development of time and sequence, including the use of complex literary devices, such as foreshadowing or flashbacks; analyze the impact the choice of literary form has on the author's message or purpose	Types of Fiction, Author's Purpose	



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Language Usage Goal Structure	Language Usage DesCartes	Language Usage Report Names
<b>Planning, Evaluation, and Revision</b>	<b>Planning, Evaluation, and Revision</b>	<b>Plan, Evaluate, Revise</b>
Use a variety of strategies to prepare for writing: brainstorming, making lists, mapping, outlining, grouping related ideas, using graphic organizers, and taking notes; identify audience and purpose; choose the form of writing that best suits the intended purpose	Pre-Writing Strategies, Audience and Purpose	
Use the writing process: prewriting, drafting, revising, and editing; focus on a central idea, excluding loosely related, extraneous, and repetitious information; revise drafts to improve the logic and coherence of the organization and controlling idea, the precision of word choice, and the tone	Use the Writing Process	
<b>Writing: Communicate Supported Ideas</b>	<b>Communicate Supported Ideas</b>	<b>Writing: Comm Supported Ideas</b>
Write multi-paragraph compositions that: engage the reader; state a clear purpose; use common organizational structures; develop the topic with supporting details; provide transitions; use precise language, action verbs, sensory details, and appropriate modifiers; use descriptive language that clarifies and enhances ideas by establishing tone and mood	Write Multi-Paragraph Compositions	
Demonstrate an understanding of sentence construction: vary sentence types; use parallelism; modifiers; active voice; coordination and subordination	Demonstrate an Understanding of Sentences	
<b>Conventions</b>	<b>Conventions</b>	<b>Conventions</b>
Spelling: produce writing that shows accurate spelling	Spelling	
Grammar: demonstrate an understanding of proper English usage	Grammar	
Punctuation: use conventions of punctuation correctly	Punctuation	

Capitalization: use correct capitalization	Capitalization	
<b>Writing: Narrative, Expository, and Persuasive Texts</b>	<b>Writing: Narrative, Expository, Persuasive Texts</b>	<b>Writing: Narr, Expos, Persuas</b>
Writing applications for narrative, expository, research writing: write personal, fictional, and biographical or autobiographical narratives or short stories that relate a sequence of events; locate scenes and incidents in specific places; reveal the author's attitude about the subject; use narrative and descriptive strategies, including dialogue; develop a standard plot line; develop a point of view; develop characters; write letters, thank-you notes, and invitations, include the date, proper salutation, body, closing, and signature; write brief reports, include observations and information; use diagrams, charts, or illustrations; write analytical essays and research reports; convey information and ideas from primary and secondary sources; include visual aids to organize and record information of charts, maps, and graphs; use appropriate conventions for documentation in text, notes, and works cited, following the formats in specific style manuals	Narrative, Expository, Research	
Writing applications for persuasive and business writing: write persuasive compositions; structure ideas and arguments in a sustained and logical fashion; use specific rhetorical devices to support assertions; write documents related to career development, including simple business letters, job applications and resumes	Persuasive and Business Writing	