

# Measures of Academic Progress (MAP) Wyoming State-Aligned Version 4

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 Operations and Concepts:</b> <b>Students use numbers, number sense, and number relationships in a problem-solving situation</b>	<b>Number Operations and Concepts</b>	<b>Number Concepts and Operations</b>
Number concepts: number sense, place value, and estimation	Number Concepts	
Number operations: add and subtract fluently with whole numbers, decimals (including money), and fractions*	Number Operations: Addition and Subtraction	
Number operations: multiply and divide fluently with whole numbers*	Number Operations: Multiplication and Division	
<b>Geometry:</b> <b>Students apply geometric concepts, properties, and relationships in a problem-solving situation</b>	<b>Geometry</b>	<b>Geometry</b>
One-, two-, and three- dimensional figures: describe, identify, and classify	One-, Two-, and Three- Dimensional Figures	
Symmetry, congruence, and reflections	Symmetry, Congruence, and Reflections	

<b>Measurement:</b> Students use a variety of tools and techniques of measurement in a problem-solving situation	<b>Measurement</b>	<b>Measurement</b>
Estimation and measurement: weight, capacity, and time	Weight, Capacity, and Time	
Estimation and measurement: length, perimeter, and area	Length, Perimeter, and Area	
<b>Algebra:</b> Students use algebraic methods to investigate, model, and interpret patterns and functions involving numbers, shapes, data, and graphs in a problem-solving situation	<b>Algebra</b>	<b>Algebra</b>
Patterns and functions: recognize, describe, extend, create, and generalize patterns by using manipulatives, numbers, and graphic representations, including charts and graphs	Patterns and Functions	
Variables: represent the idea of a variable as an unknown quantity, a letter, or a symbol within addition and subtraction sentences using whole numbers	Variables	
<b>Data Analysis and Probability:</b> Students use data analysis and probability to analyze given situations and the results of experiments	<b>Data Analysis and Probability</b>	<b>Data Analysis and Probability</b>
Data collection, display, and analysis: collect, organize, describe, display, and interpret data in graphs, Venn diagrams, tables, and charts	Data Collection, Display, and Analysis	
Probability: predict, perform, and record the results of probability experiments	Probability	

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

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<b>Mathematics 6+ Goal Structure</b>	<b>Mathematics 6+ DesCartes</b>	<b>Mathematics 6+ Report Names</b>
<b>Number Operations and Concepts:</b> Students use numbers, number sense, and number relationships in a problem-solving situation	<b>Number Operations and Concepts</b>	<b>Number Concepts and Operations</b>
Number concepts: number sense, place value, estimation, and number theory concepts	Number Concepts	
Number operations: add and subtract fluently with real numbers	Number Operations: Addition and Subtraction	
Number operations: multiply and divide fluently with real numbers	Number Operations: Multiplication and Division	
Number operations: advanced computation with powers, roots, ratios, proportions, percents, scientific notation, and absolute value	Number Operations: Advanced	
<b>Geometry:</b> Students apply geometric concepts, properties, and relationships in a problem-solving situation	<b>Geometry</b>	<b>Geometry</b>
One-, two-, and three- dimensional figures: describe, identify, and classify	One-, Two-, and Three- Dimensional Figures	
Symmetry, congruence, similarity, transformations, and the Pythagorean theorem	Symmetry, Congruence, Similarity, Transformations	
<b>Measurement:</b> Students use a variety of tools and techniques of measurement in a problem-solving situation	<b>Measurement</b>	<b>Measurement</b>
Estimation and measurement: weight, capacity, volume, and time	Weight, Capacity, Volume, and Time	
Estimation and measurement: length, perimeter, circumference, angle measure, area, and surface area	Length, Angle Measure, Area, and Surface Area	



<b>Algebra:</b> Students use algebraic methods to investigate, model, and interpret patterns and functions involving numbers, shapes, data, and graphs in a problem-solving situation	<b>Algebra</b>	<b>Algebra</b>
Patterns and functions: recognize, describe, extend, create, and generalize patterns by using manipulatives, numbers, and graphic representations, including charts and graphs	Patterns and Functions	
Variables: represent the idea of a variable as an unknown quantity, a letter, or a symbol within addition and subtraction sentences using whole numbers	Variables	
Algebraic expressions, equations, inequalities, and systems of equations: write, model, and evaluate expressions; solve, graph, and interpret linear equations, inequalities, and systems of linear equations	Expressions, Equations, Inequalities, and Systems	
<b>Data Analysis and Probability:</b> Students use data analysis and probability to analyze given situations and the results of experiments	<b>Data Analysis and Probability</b>	<b>Data Analysis and Probability</b>
Data collection, display, and analysis: collect, organize, describe, display, and interpret data in graphs, Venn diagrams, tables, and charts	Data Collection, Display, and Analysis	
Probability: predict, perform, and record the results of probability experiments	Probability	

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## Measures of Academic Progress (MAP) Wyoming State-Aligned Version 4

Reading Goal Structure	Reading DesCartes	Reading Report Names
<p><b>Students use the reading process to decode unknown words and understand text, and use strategies to develop vocabulary</b></p>	<p><b>Reading Process: Decoding, Vocabulary</b></p>	<p><b>Decode, Vocab</b></p>
<p>Decoding unknown words and understanding text: students recognize rhyming words; students combine syllables; students recognize initial and final sounds of words; students identify parts of a book including the front and back covers, the title page, and the names of the author and illustrator; students understand concepts of print, including that print conveys meaning and that print is read top-to-bottom and left-to-right; students differentiate letters and words; students name upper and lower case alphabet letters; students know letter/sound correspondences; students use letter-sound relationships, context, and high frequency words to decode unknown words and understand text; students use basic elements of structural analysis, such as simple prefixes and suffixes, root words, contractions, possessives, sentence structure, and compound words to decode unknown words; students use knowledge of less common vowel patterns, syllabication, and complex word families to decode unknown words and understand text</p>	<p>Decoding Unknown Words and Understanding Text</p>	

Strategies to develop vocabulary: students use knowledge of synonyms, antonyms, and multiple meaning words to develop vocabulary; students use word origins and derivations to develop vocabulary; students use analogies to develop vocabulary; students use word origins and context clues to develop vocabulary and understand technical and subject specific terms; students use a range of strategies (using word origins; understanding multiple meanings; inferring meaning from context; inferring literal, figurative, and technical meanings; understanding technical and subject-specific words) to develop vocabulary	Strategies to Develop Vocabulary	
<b>Students use the reading process for literal and inferential comprehension of text</b>	<b>Reading Process: Comprehension</b>	<b>Comprehension</b>
Literal comprehension: students comprehend main idea and supporting details; students demonstrate comprehension by retelling, summarizing, and paraphrasing main idea and supporting details in text; students demonstrate understanding in their reading based on a variety of text features, such as evidence presented, text format, and use of language including literal comprehension	Literal Comprehension: Main Idea, Summarizing	
Inferential comprehension: students use such comprehension strategies as inferring; students draw inferences, conclusions, or generalizations about text; students use strategies such as setting a purpose, cause/effect, comparing/contrasting, drawing conclusions, and inferring to interpret and analyze text; students distinguish between fact and opinion; students use a variety of strategies to make, confirm, and revise predictions about text, such as use of illustrations, titles, and topic sentences	Inferential Comprehension: Infer, Conclude	

Students understand and interpret elements of literature, literary genres, and literary devices and techniques	Understanding and Interpreting Literary Texts	Understand, Interpret Lit
<p>Elements of literature: students understand sequence; students recall sequence of key events; students identify setting, characters, main events, and plot in story; students understand elements of literature including character development (character's actions, beliefs, motives, reactions, and feelings); point of view including underlying author purpose; setting; universal themes including the philosophical assumptions and underlying beliefs of author's work</p>	<p>Elements of Literature</p>	
<p>Literary genres: students read a variety of literary genres such as historical fiction, poetry, fiction, fairy tales, narratives from different cultures, drama, literature anthologies, myths, folk tales, and legends; students know the defining characteristics of a variety of literary texts such as poetry, biographies, historical fiction, fiction, fairy tales, fables, narratives from different cultures, drama, nonfiction, myths, folk tales, and legends</p>	<p>Literary Genres</p>	
<p>Literary devices/techniques: students understand the different ways in which words and style are used such as rhythm, alliteration, and onomatopoeia; students recognize descriptive language and imagery; students understand the use of a range of complex literary devices/techniques to accomplish author's purpose: symbolism, mood/tone, allusion, irony, figurative language (metaphor, simile, personification), analogy, exaggeration, archetypes; students understand author's purpose and elements that help to achieve that purpose such as language, form, setting, specific information and details, and persuasive techniques</p>	<p>Literary Devices/Techniques</p>	

<b>Students understand informational genres and organizational patterns; Students interpret written directions, use text features, and understand author's point of view, intent, and bias</b>	<b>Understanding of Informational Texts</b>	<b>Understanding Inform Texts</b>
Informational genres and organizational patterns: students read a variety of non-fiction and informational texts; students read a variety of information genres; students understand organizational patterns in expository texts	Information Genres and Organizational Patterns	
Directions, text features, and author's intent: students interpret simple written directions; students follow simple multi-step written directions; students locate information using table of contents, index, or glossary; students use maps, captioned pictures, or sidebars to locate information in text; students interpret simple maps, charts, and graphs; students understand word choice and arguments that convey author's point of view; explain author's intent; evaluate for accuracy, relevance, and bias	Directions, Text Features, and Author's Intent	

## Measures of Academic Progress (MAP) Wyoming State-Aligned Version 4

Language Usage Goal Structure	Language Usage DesCartes	Language Usage Report Names
<p><b>Students apply writing skills to plan, draft, and revise writing</b></p>	<p><b>Students Apply Writing Skills to Plan, Draft</b></p>	<p><b>Students Apply Writing Skills</b></p>
<p>Students use writing strategies to generate ideas: Students consider audience and purpose in planning; develop a focus; use vivid, specific and relevant details and concepts.</p>	<p>Students Use Writing Strategies to Generate Ideas</p>	
<p>Students establish paragraph organization: Students establish organization within and among paragraphs through effective transitions, parallel structures, and cohesive writing techniques; students use organization skills to arrange paragraphs into logical progression; include a concluding statement; students write using a clear idea with specific details, establishing a controlling impression and a coherent thesis; students organize writing logically, chronologically, and coherently using strong beginnings, supporting sentences.</p>	<p>Students Establish Paragraph Organization</p>	
<p>Students use word choice and sentence fluency: Students use meaningful word choice, voice, and sentence fluency; students use persuasive word choice, engaging voice, and correct sentence structure; students use grade-level-appropriate sentence fluency with compound and complex sentences and sentence variety; students use meaningful voice by adapting writing for different audiences and purposes by using suitable content, vocabulary, style, structure, and tone by considering background, age, knowledge of audience; use appropriate level of formality.</p>	<p>Students Use Word Choice and Sentence Fluency</p>	

Students use strategies to draft, revise, edit: Students use strategies to draft and revise written work such as producing multiple drafts, focusing on a central idea, including descriptive detail, using elements of style such as word choice, tone, sentence variation, and revising for clarity, content; students use strategies to edit written work such as editing for conventions and using resources to edit such as dictionaries, spell checkers, and style manuals; students use strategies to edit written work such as editing for grammar, punctuation, capitalization, and spelling, and use resources (dictionaries, spell checkers, and style manuals) to edit and proofread.	Students Use Strategies to Draft, Revise, Edit	
<b>Students use grade-level appropriate conventions</b>	<b>Students Use Appropriate Conventions</b>	<b>Students Use Conventions</b>
Students use grade-level appropriate conventions of capitalization, spelling, and punctuation.	Students Use Appropriate Conventions	
Students use grade-level appropriate conventions of grammar and usage.	Students Use Appropriate Grammar and Usage	
<b>Students use appropriate strategies to write a variety of expressive and expository pieces</b>	<b>Students Write Expressive and Expository Pieces</b>	<b>Students Write Pieces</b>
Students write literary texts (poetry, journals, letters, short stories, plays, essays, personal narratives, short stories, literary responses): They are able to convey a unifying theme or tone; use sensory details to describe sights, sounds, movement, and gestures; develop major and minor characters; develop a setting; establish appropriate point of view; use a range of narrative devices including dialogue and suspense; develop plot; students write and share personal and formal letters including date, salutation, body, closing, and signature.	Students Write Literary Texts	

<p>Students write technical, persuasive, research: Students create technical writing for practical tasks using grade level-appropriate strategies: They are able to use appropriate organizational form; use formal language and tone; students produce expository essays and reports; students write directions, explain problem and solution or procedures; students use strategies to write research reports such as evaluating and synthesizing information for use in writing, incorporating notes into a finished product using appropriate visual aids; students include facts, details, explanations, and examples; students use strategies to cite reference sources such as quoting or paraphrasing information sources or listing resources by title; students write persuasive essays using grade-level appropriate strategies; students address author's bias.</p>	<p>Students Write Technical, Persuasive, Research</p>	
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