

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

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

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

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

Mathematics 2-5 Goal Structure	Mathematics 2-5 DesCartes	Mathematics 2-5 Report Names
Number and Operations	Number and Operations	Number and Operations
Meaning, notation, place value, and comparisons: whole numbers, fractions, decimals, and percentages*	Meaning, Notation, Place Value, and Comparisons	
Number relationships and meaning of operations: whole numbers, fractions, decimals, and percentages*	Number Relationships and Meaning of Operations	
Fluency with operations: addition and subtraction of whole numbers, decimals, and fractions*	Fluency with Operations: Add and Subtract	
Fluency with operations: multiplication and division of whole numbers and decimals*	Fluency with Operations: Multiply and Divide	
Estimation: whole numbers, fractions, decimals, and percentages*	Estimation	
Algebra	Algebra	Algebra
Patterns, relations, functions, and change	Patterns, Relations, Functions, and Change	
Formulas, expressions, equations, and inequalities	Formulas, Expressions, Equations, and Inequalities	



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Measurement	Measurement	Measurement
Units and systems of measurement	Units and Systems of Measurement	
Techniques and formulas for measurement	Techniques and Formulas for Measurement	
Problem solving involving measurement	Problem Solving Involving Measurement	
Geometry	Geometry	Geometry
Geometric shape, properties, and mathematical arguments	Geometric Shape, Properties, Mathematical Argument	
Locations and spatial relationships	Locations and Spatial Relationships	
Spatial reasoning and geometric modeling	Spatial Reasoning and Geometric Modeling	
Transformation and symmetry	Transformation and Symmetry	
Data and Probability	Data and Probability	Data and Probability
Data representation	Data Representation	
Data interpretation and analysis	Data Interpretation and Analysis	

*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 and Operations	Number and Operations	Number and Operations
Meaning, notation, place value, and comparisons: real numbers*	Meaning, Notation, Place Value, and Comparisons	
Number relationships and meaning of operations: real numbers*	Number Relationships and Meaning of Operations	
Fluency with operations: addition and subtraction of real numbers*	Fluency with Operations: Add and Subtract	
Fluency with operations: multiplication and division of real numbers*	Fluency with Operations: Multiply and Divide	
Fluency with operations: powers, roots, proportions, scientific notation, absolute value, logarithms	Fluency with Operations: Advanced	
Estimation: real numbers*	Estimation	
Algebra	Algebra	Algebra
Patterns, relations, functions, and change	Patterns, Relations, Functions, and Change	
Representation	Representation	
Formulas, expressions, equations, and inequalities	Formulas, Expressions, Equations, and Inequalities	
Measurement	Measurement	Measurement
Units and systems of measurement	Units and Systems of Measurement	
Techniques and formulas for measurement	Techniques and Formulas for Measurement	
Problem solving involving measurement	Problem Solving Involving Measurement	
Geometry	Geometry	Geometry
Geometric shape, properties, and mathematical arguments	Geometric Shape, Properties, Mathematical Argument	
Locations and spatial relationships	Locations and Spatial Relationships	



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Spatial reasoning and geometric modeling	Spatial Reasoning and Geometric Modeling	
Transformation and symmetry	Transformation and Symmetry	
Data and Probability	Data and Probability	Data and Probability
Data representation	Data Representation	
Data interpretation and analysis	Data Interpretation and Analysis	
Probability	Probability	

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Reading Goal Structure	Reading DesCartes	Reading Report Names
Word Recognition, Word Study, Fluency	Word Recognition, Word Study, Fluency	Word Recog, Word Study
<p>Phonetic awareness, phonics, word recognition: demonstrate phonemic awareness by the wide range of sound manipulation competencies, including sound blending and deletion; recognize that words are composed of sounds blended together and carry meaning; understand the alphabetic principle, that sounds in words are expressed by the letters of the alphabet; use grapho-phonemic (letter-sound) cues to recognize a few one-syllable words when presented completely out of context; begin to associate letters and sounds, particularly initial and final consonants; use syntactic and semantic cues including picture clues, word chunks, and the structure of book language to determine the meaning of words; use structural, syntactic, and semantic cues including letter sound, rimes, base words, and affixes to automatically read frequently encountered words, decode unknown words, and decide meanings including multiple meaning words; use strategies to identify unknown words and construct meaning by using initial letters/sounds (phonics), patterns of language (syntactic), picture clues (semantic), and applying context clues to select between alternative meaning; use previously learned and new strategies to identify unknown words and construct meaning by re-reading a sentence or paragraph when meaning is unclear, using context as a basis for predicting meaning of unfamiliar words; know the meanings of words encountered frequently in grade-level reading</p>	<p>Phonetic Awareness, Phonics, Word Recognition</p>	

<p>Vocabulary: in context, determine the meaning of a few words, familiar and repeated phrases including objects, actions, concepts, content vocabulary, and literary terms, using strategies and resources including picture clues, prediction, and other people; in context, determine the meaning of words and phrases including synonyms, homonyms, multiple meaning words, content vocabulary and literary terms using strategies and resources including context clues, concept mapping, and the dictionary</p>	<p>Vocabulary</p>	
<p>Narrative Text</p>	<p>Narrative Text</p>	<p>Narrative Text</p>
<p>Narrative forms and literary elements: stories, nursery rhymes, poetry, songs, realistic fiction, fantasy, folktales, legends, drama; fables, myths, historical fiction, tall tales, science fiction, mystery, adventure and action stories, memoir, science fiction; discuss setting, characters, and events in narrative text; identify problem/solution, sequence of events, sense of story (beginning, middle, and end); identify and describe characters' actions and motivations, setting (time and place); identify and describe characters' thoughts, story-level themes (good vs. evil), main idea, and lesson/moral (fable); analyze characters' thoughts and motivation through dialogue, various character roles and functions including hero, antihero, or narrator; know first person point of view and identify conflict and resolution; analyze how characters' traits and setting define plot, climax, the role of dialogue, and how problems are resolved</p>	<p>Narrative Forms and Literary Elements</p>	
<p>Literary devices: identify and explain how authors/illustrators use literary devices, including illustrations and titles, to depict major story events, and comparisons, including metaphors or similes, to reveal characters' thoughts and actions; explain how authors use literary devices including personification, flash-forward and flashback, metaphors, dialogue, imagery, mood, and understatement, symbolism, imagery</p>	<p>Literary Devices</p>	

Informational Text	Informational Text	Informational Text
Informational forms: environmental text, concept books, picture books, simple "how-to" books, personal correspondence, magazines, textbooks, encyclopedias, autobiography/biography, personal essay, almanac, newspaper, advertising, experiments, editorials, atlases, persuasive essay, research report, brochure, comparative essays, technical writings	Informational Forms and Text Features	
Text patterns and features: identify informational text patterns including descriptive, sequential, enumerative, compare/contrast, problem/solution, cause/effect; explain how authors use text features including titles, headings and subheadings, timelines, prefaces, indices, and table of contents to enhance the understanding of key and supporting ideas	Text Patterns	
Comprehension and Metacognition	Comprehension and Metacognition	Comprehension, Metacognition
Sequence and details: retell in sequence the major idea(s) and relevant details of grade-level narrative and informational text	Sequence and Details	
Prediction, drawing conclusions, making inferences: make connections across texts by making meaningful predictions based on illustrations or portions of texts; analyze by drawing conclusions, making inferences	Prediction, Drawing Conclusions, Making Inferences	
Summarizing and author's perspective: apply strategies used by mature readers to increase comprehension including summarizing; identify the author's perspective	Summarizing and Author's Perspective	

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Language Usage Goal Structure	Language Usage DesCartes	Language Usage Report Names
Writing Genre	Writing Genre	Writing Genre
<p>Write a narrative or an essay: write a narrative using transitional words; depicting major story events; using personification, setting, actions and thoughts that reveal important character traits; creating relationships among setting, characters, theme, and plot; include appropriate conventions to genre, employing literary and plot devices (e.g., narrator credibility, rising and falling actions and/or conflict, imagery and transitional language); write a personal, persuasive, or comparative essay that includes organizational patterns supporting key ideas</p>	<p>Write a Narrative or an Essay</p>	
<p>Write an informational piece, produce research: write an informational piece using an organizational pattern such as description, enumeration, sequence, or compare/contrast that may include graphs, diagrams, or charts to enhance the understanding of central and key ideas; use the writing process to produce and present a research project; use a variety of resources; formulate research questions using multiple resources, perspectives, and arguments/counter-arguments to develop a thesis statement</p>	<p>Write an Informational Piece, Produce Research</p>	

Writing Process	Writing Process	Writing Process
Purpose, audience and prewriting strategies: set a purpose, consider audience when writing a narrative or informational piece; apply a variety of pre-writing strategies for both narrative (e.g., graphic organizers designed to depict rising and falling actions, roles of minor characters, credibility of narrator) and informational writing (e.g., compare/contrast, cause/effect, or sequential text patterns)	Purpose, Audience and Prewriting Strategies	
Draft, revise, proofread, edit: draft focused ideas in written compositions using paragraph clusters, each containing a main idea and some supporting details; draft focused ideas experimenting with various ways of sequencing information including ordering arguments, or sequencing ideas chronologically by importance when writing compositions; draft a coherent piece with appropriate grammar, usage, mechanics, and temporary spellings; revise drafts for clarity, coherence, and consistency in content, voice, and genre characteristics with audience and purpose in mind; proofread and edit writing using grade-level checklists and other appropriate resources	Draft, Revise, Proofread, Edit	
Grammar and Usage (Grammatical Structures)	Grammar and Usage (Grammatical Structures)	Grammatical Structures
Parts of speech: nouns and possessives; verbs, verb tenses, regular and irregular verb tenses; adverbs; adjectives; pronouns; conjunctions	Parts of Speech	

Sentences, agreement, phrases, and clauses: simple sentences, complete, complex, compound sentences; subjects and predicates; subjects and verbs in agreement; pronoun antecedent; prepositional phrases; adjective and adverbial phrases and clauses; independent and dependent clauses	Sentences, Agreement, Phrases, and Clauses	
Grammar and Usage (Punctuation and Capitalization)	Grammar and Usage (Punctuation and Capitalization)	Punctuation, Capitalization
Punctuation: correctly use commas, contractions, colons, commas in a series, quotation marks, hyphens, apostrophes, underlining, parentheses	Punctuation	
Capitalization: capitalize first and last names, pronoun I; proper nouns; capitalize in dialogue	Capitalization	
Spelling	Spelling	Spelling
Frequently encountered words: correctly spell frequently encountered words (e.g., roots, inflections, prefixes, suffixes, multi-syllabic)	Frequently Encountered Words	
Structural cues: use structural cues (e.g., letter/sound, rime, morphemic) and environmental sources (e.g., word lists, dictionaries)	Structural Cues	