

# Measures of Academic Progress (MAP) Texas State-Aligned Version 5

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, Operation, and Quantitative Reasoning</b>	<b>Number, Operation, and Quantitative Reasoning</b>	<b>Number and Operation</b>
Use place value to represent whole numbers and decimals: Use concrete models of hundreds, tens, and ones to represent a given whole number in various ways; use place value to read, write, describe, compare, and order whole numbers and decimals; name the ordinal positions in a sequence.	Use Place Value: Whole Numbers and Decimals	
Use fraction names and symbols to describe and compare fractional parts of whole objects or sets of objects and use fractions in problem-solving situations: Use and construct concrete models to represent and name fractional parts of a whole object; model fraction quantities greater than one; compare and order fractions; use concrete objects and pictorial models to generate equivalent fractions; use models to relate decimals to fractions.	Use Fractions: Describe, Compare, & Solve	
Add and subtract to solve meaningful problems involving whole numbers: Model addition and subtraction using pictures, words, and numbers; recall and apply basic addition and subtraction facts; use	Add and Subtract: Whole Numbers	

addition and subtraction to solve problems involving whole numbers.		
Add and subtract to solve meaningful problems involving fractions and decimals: Add and subtract decimals using concrete objects and pictorial models; use addition and subtraction to solve problems involving decimals; model situations using addition and/or subtraction involving fractions with like denominators using concrete objects, pictures, words, and numbers; determine the value of a collection of coins; describe how the cent symbol, dollar symbol, and the decimal point are used to name the value of a collection of coins.	Add and Subtract: Fractions & Decimals	
Multiply and divide to solve meaningful problems involving whole numbers: Model, create, and describe multiplication and division situations in which equivalent sets of concrete objects are joined or separated into equivalent sets; recall and apply multiplication facts; use multiplication and division to solve problem involving whole numbers, including interpreting the remainder within a given context; model factors and products using arrays and area models; identify common factors of a set of whole numbers.	Multiply and Divide: Whole Numbers	
Estimate to determine reasonable results: Round whole numbers to approximate reasonable results in problem situations; use strategies including rounding and compatible numbers to estimate solutions to addition, subtraction, multiplication and division problems.	Estimate to Determine Reasonable Results	
<b>Patterns, Relationships, and Algebraic Thinking</b>	<b>Patterns, Relationships, and Algebraic Thinking</b>	<b>Algebraic Thinking</b>
Use patterns to make predictions, in numbers and operations, and to solve problems: Identify, describe, and extend whole-number and geometric patterns to make predictions and solve problems; find patterns in numbers such as in a 100s chart and multiplication facts; identify and use patterns to develop strategies to solve basic problems; determine patterns in related addition, subtraction, multiplication, and division sentences; use patterns to multiply by 10 and 100.	Use Patterns to Predict & Solve Problems	
Use lists, tables, and charts to express, analyze, and describe patterns and relationships: Generate, identify, and describe patterns in a table	Use Organizational Structures: Analyze & Describe	

of related number pairs based on a meaningful problem and extend the table; describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams; identify prime and composite numbers; select from and use diagrams and equations such as $y = 5 + 3$ to represent meaningful problem situations.		
<b>Geometry and Spatial Reasoning</b>	<b>Geometry and Spatial Reasoning</b>	<b>Geometry</b>
Use attributes to identify, compare and contrast two- and three-dimensional geometric figures: Describe and identify two- and three-dimensional geometric figures in order to sort them according to a given attribute; cut two-dimensional geometric figures apart and identify the new geometric figures formed; identify and describe right, acute, obtuse angles, parallel, and intersecting (including perpendicular) lines; identify essential attributes including parallel, perpendicular, and congruent parts of two- and three-dimensional geometric figures.	Identify, Compare, & Contrast 2-D and 3-D Figures	
Model transformations and recognize congruence and symmetry, the connection between numbers and their properties and points on a line, between ordered pairs of numbers and locations of points on a plane: Locate and name points on a number line using whole numbers, fractions, and decimals and points on a coordinate grid using ordered pairs of whole numbers; identify congruent two-dimensional figures and lines of symmetry in two-dimensional geometric figures; demonstrate translations, reflections, and rotations using concrete models.	Transformation, Congruence, Symmetry, & Points	
<b>Measurement</b>	<b>Measurement</b>	<b>Measurement</b>
Apply measurement concepts involving length, area, capacity/volume, and weight/mass to solve problems: Estimate and measure using nonstandard units; estimate and use measurement tools to determine length, area, capacity and weight/mass using standard units; compare and order according to length, area, weight/mass, and capacity; explain the difference between weight and mass; select and use	Estimate, Measure, and Solve Problems	

appropriate units and formulas to measure length, perimeter, area, and volume; perform simple conversions within the same measurement system.		
Apply measurement concepts to measure time and temperature: Compare and order two or more objects according to relative temperature; read a calendar using days, weeks, and months; tell and write time shown on analog and digital clocks; use a thermometer to measure temperature and changes in temperature; solve problems involving changes in temperature and elapsed time.	Measure Time and Temperature	
<b>Probability and Statistics</b>	<b>Probability and Statistics</b>	<b>Probability and Statistics</b>
Solve problems by collecting, organizing, displaying, and interpreting sets of data: Collect, organize, record, and display data in pictographs and bar graphs where each picture or cell might represent more than one piece of data; interpret information from pictographs and bar graphs; use tables of related number pairs to make line graphs; describe characteristics of data presented in tables and graphs including median, mode, and range.	Collect, Organize, Display, & Interpret Data	
Describe and predict the results of a probability experiment: Use data to describe events as more likely than, less likely than, or equally likely as; use fractions to describe the results of an experiment; use experimental results to make predictions; use concrete objects or pictures to make generalizations about determining all possible combinations of a given set of data or of objects in a problem situation; list all possible outcomes of a probability experiment such as tossing a coin.	Use Probability to Describe and Predict	

# Measures of Academic Progress (MAP) Texas State-Aligned Version 5

Mathematics 6+ Goal Structure	Mathematics 6+ DesCartes	Mathematics 6+ Report Names
<b>Number, Operation, and Quantitative Reasoning</b>	<b>Number, Operation, and Quantitative Reasoning</b>	<b>Number and Operation</b>
Represent and use numbers in a variety of equivalent forms and understand that different forms of numbers are appropriate for different situations: Convert between fractions, decimals, whole numbers, and percents; write prime factorizations using exponents; identify factors and multiples, common factors and multiples, the greatest common factor, and the least common multiple of a set of positive integers; represent squares and square roots; approximate the value of irrational numbers; express numbers in scientific notation; compare and order real numbers.	Represent & Use Numbers in Equivalent Forms	
Select and use appropriate operations to solve problems and justify solutions: Use appropriate operations to solve problems involving rational numbers in problem situations; simplify numerical expressions involving order of operations and exponents.	Solve Problems Involving Rational Numbers	
Add and subtract with real numbers: Model addition and subtraction situations involving fractions with objects, pictures, words, and numbers; use models, such as concrete objects, pictorial models, and number lines, to add and subtract integers.	Add and Subtract: Real Numbers	
Multiply and divide with real numbers: Represent multiplication and division situations involving fractions and decimals with models, including concrete objects, pictures, words, and numbers; use models, such as concrete objects, pictorial models, and number lines, to multiply and divide integers.	Multiply and Divide: Real Numbers	
Estimate to determine reasonable results: Estimate and round to approximate reasonable results and to solve problems where exact	Estimate to Determine Reasonable Results	

answers are not required; determine the reasonableness of a solution to a problem; evaluate a solution for reasonableness.		
<b>Patterns, Relationships, and Algebraic Thinking</b>	<b>Patterns, Relationships, and Algebraic Thinking</b>	<b>Algebraic Thinking</b>
Represent a relationship in numerical, geometric, verbal, and symbolic form and understand how algebra can be used to express generalizations and recognize and use the power of symbols to represent situations: Find and evaluate an algebraic expression to determine any term in an arithmetic sequence; look for patterns and represent generalizations algebraically.	Use Patterns to Generate & Predict	
Solve problems involving proportional relationships and use properties and attributes of functions: Understand that a function represents a dependence of one quantity on another and can be described in a variety of ways; identify the mathematical domains and ranges of functions; interpret and describe the effects of changes in the parameters of functions; understand the meaning of the slope, intercepts, and zeros of linear functions; formulate equations and inequalities based on functions; use ratios to solve problems involving similar figures.	Use Proportional Relationships & Functions	
Represent a relationship in numerical, geometric, verbal, and symbolic form and make connections among various representations of a numerical relationship: Describe functional relationships for given problem situations; analyze data and represent situations involving exponential growth and decay and formulate equations or inequalities and systems of linear equations or inequalities in two unknowns; relate representations of quadratic functions; know the relationship between the geometric and algebraic descriptions of conic sections.	Represent Numerical Relationships	
Use graphs, tables, and algebraic representations to make predictions and solve problems, simplify algebraic expressions, and solve equations and inequalities in problem situations: Interpret and determine the reasonableness of solutions; determine solutions of	Solve Equations, Inequalities, and Systems	

equations and inequalities including quadratic, square root, rational, exponential, and logarithmic; solve systems of equations or inequalities; use tools including factoring and properties of exponents; use complex numbers to describe the solutions of quadratic equations.		
<b>Geometry and Spatial Reasoning</b>	<b>Geometry and Spatial Reasoning</b>	<b>Geometry</b>
Compare and classify two- and three-dimensional figures using geometric vocabulary and properties: Use angle measurements to classify angles as acute, obtuse, or right; use angle measurements to classify pairs of angles as complementary or supplementary; use nets to represent and construct three-dimensional geometric figures; test conjectures about the properties and attributes of circles, parallel and perpendicular lines, and polygons based on explorations and concrete models.	Compare & Classify 2-D and 3-D Figures	
Use transformational geometry to develop spatial sense and apply logical reasoning to justify and prove mathematical statements: Graph dilations, reflections, and translations on a coordinate plane; generate similar figures using dilations; determine the validity of a conditional statement; make connections between mathematics and the real world, such as tessellations; use congruence transformations to make conjectures and justify properties of geometric figures; apply triangle congruence and similarity relationships.	Transformation, Congruence, Similarity, & Symmetry	
Use geometry to model and describe the physical world and understand that coordinate systems provide convenient and efficient ways of representing geometric figures: Use one- and two-dimensional coordinate systems to represent points and figures; use slopes and equations of lines to investigate geometric relationships, including parallel lines, perpendicular lines, and special segments of triangles; use formulas involving length, slope, and midpoint.	Dimensionality and the Geometry of Location	
Use geometry to model and describe the physical world and understand geometric structure: Draw three-dimensional figures from	Use and Understand Geometric Structure and Models	

different perspectives; make a net of the surface area of a three-dimensional figure; use geometric concepts and properties to solve problems; identify and apply patterns from right triangles to solve meaningful problems; develop an awareness of the structure of a mathematical system, connecting definitions, postulates, logical reasoning, and theorems.		
<b>Measurement</b>	<b>Measurement</b>	<b>Measurement</b>
Estimate, select and use appropriate units, tools, or formulas to measure involving length, area, time, temperature, volume, surface area, and weight; evaluate reasonableness of results; connect models to formulas for volume; find areas of composite figures; measure angles; convert measures within and between measurement systems (customary and metric) based on relationships between units; find surface areas and volumes of prisms, pyramids, spheres, cones, cylinders, and composites of these figures.	Determine Measurements of Geometric Figures	
Solve application problems involving estimation and measurement of length, area, time, temperature, volume, surface area, weight, and angles and use indirect measurement to solve problems: Describe how changes in dimensions affect linear, area, and volume measures; apply the concepts of similarity to justify properties of figures and solve problems; find areas of sectors and arc lengths of circles.	Extend Measurement Concepts to Problem Situations	
<b>Probability and Statistics</b>	<b>Probability and Statistics</b>	<b>Probability and Statistics</b>
Use statistical procedures and measures of central tendency and variability to describe data: Select and use an appropriate representation for presenting and displaying relationships among collected data, including line plots, line graphs, stem and leaf plots, circle graphs, bar graphs, box and whisker plots, histograms, scatterplots, and Venn diagrams; solve problems by collecting, organizing, displaying, and interpreting data; recognize misuses of graphical or numerical information; evaluate methods of sampling.	Collect, Organize, Display, & Interpret Data	

<p>Apply concepts of theoretical and experimental probability to make predictions: Construct sample spaces for simple or composite experiments; find the probabilities of a simple event and its complement and describe the relationship between the two; find the probabilities of dependent and independent events; select and use different models to simulate an event; use area models to connect geometry to probability and statistics.</p>	<p>Use Probability to Describe and Predict</p>	
---	--	--

## Measures of Academic Progress (MAP) Texas State-Aligned Version 5

Reading Goal Structure	Reading DesCartes	Reading Report Names
<b>Print Awareness, Phonological Awareness, Letter-Sound Relationships, Word Identification, Vocabulary Development</b>	Print Awareness, Phonics, Vocabulary	Print, Phonics, Vocabulary
Identify letters and words; sequence letters of the alphabet; recognize features of a sentence; identify information in parts of a book; identify syllables, rhyming words, phonemic blends and sounds; apply spelling patterns to create and decode words; read abbreviations and contractions	Identify Letter and Sentence, Spelling Patterns	
Identify the meaning of common prefixes and suffixes in vocabulary and know how they change the meaning of roots; identify nouns and adjectives; determine the meaning of roots and technical language	Identify Meaning: Affixes and Roots	
Identify antonyms, synonyms, homographs, homophones; use analogies to determine word meaning; identify common idioms and other sayings	Use Antonyms, Synonyms, Homographs, Idioms	
Use context to determine the meaning of unfamiliar words or to distinguish between multiple meaning words and to distinguish between denotative and connotative meanings of words; use context to draw conclusions about the nuance in word meanings	Use Context to Determine Word Meaning	
<b>Comprehension of Literary Text</b>	<b>Literary Concepts</b>	<b>Literary Concepts</b>
Identify and summarize lessons, themes, genre, and supporting details; compare and contrast works of literature	Identify Theme, Genre, and Detail	
Use ideas in text to make and confirm predictions; make inferences and draw conclusions about character, plot, setting, point of view, and tone in fiction and the structure and elements of fiction, poetry, and drama	Analyze Structure/Elements of Fiction; Predict	

Understand, make inferences and draw conclusions about the structure and features of literary nonfiction; draw conclusions about how sensory language creates imagery in literary text	Analyze Literary Nonfiction, Sensory Language	
<b>Comprehension of Informational Text</b>	<b>Informational Concepts</b>	<b>Informational Concepts</b>
Make inferences and draw conclusions about author's purpose; locate facts; distinguish fact from opinion; make connections between and across texts	Identify Author's Purpose, Fact/Opinion	
Summarize main ideas, supporting details, and relationships among ideas	Summarize Main Ideas and Details	
Identify relationships among ideas organized by cause and effect or comparison; defend inferences; describe order of events, use text features to gain an overview of text and make predictions	Identify Organizational Patterns, Text Features	
Identify author's viewpoint or position, analyze credibility of evidence; evaluate tone in persuasive texts	Identify Author Viewpoint; Evaluate Credibility	
Follow directions and draw conclusions about the structure of procedural texts; identify and explain the meaning of specific signs and symbols; use common graphic features to assist in the interpretation of text; interpret information presented in maps, charts, illustrations, graphs, timelines, tables, and diagrams	Follow Directions; Use Graphic Features	

## Measures of Academic Progress (MAP) Texas State-Aligned Version 5

Language Usage Goal Structure	Language Usage DesCartes	Language Usage Report Names
<b>Students use elements of the writing process (planning, drafting, revising, editing, and publishing) to compose text</b>	<b>Use Elements of the Writing Process</b>	<b>Writing Process</b>
Use planning and drafting to generate ideas and create a focused, organized, and coherent piece of writing	Use Planning and Drafting to Compose Text	
Use revising to improve style, clarify meaning, and achieve logical organization	Use Revising to Improve Text	
Use editing for grammar, punctuation, and spelling	Use Editing for Grammar, Punctuation, Spelling	
<b>Students write personal narratives and literary texts to express their ideas and feelings about real or imagined people, events, and ideas</b>	<b>Write Personal Narratives and Literary Texts</b>	<b>Narrative and Literary Text</b>
Use literary strategies, devices, and sensory details to write literary and narrative texts	Use Literary Strategies, Device, Sensory Detail	
Write different forms of poetry using a variety of poetic techniques and poetic conventions; use figurative language	Write Poetry; Use Figurative Language	
<b>Students write expository and procedural or work-related texts, persuasive texts, and engage in research to collect and communicate ideas and information</b>	<b>Write a Variety of Text; Conduct Research</b>	<b>Varied Texts; Research</b>
Write expository and procedural or work-related texts appropriate to purpose, audience, and organizational structure	Write Expository and Procedural Texts	
Write persuasive texts based on logical reasons, supported by precise and relevant evidence with various forms of support and with an organizing structure appropriate to the purpose, audience, and context	Write Persuasive Texts	

Develop a research plan, determine, locate, and explore the full range of relevant sources, clarify research questions and evaluate and synthesize collected information, and organize and present their ideas	Plan, Locate Sources, Organize, Present Ideas	
<b>Students understand the function of and use the conventions of academic language when writing</b>	<b>Use Conventions of Academic Language</b>	<b>Conventions of Language</b>
Use nouns, pronouns, verbs, tenses, verbals, participles	Use Nouns, Pronouns, Verbs, Tense, Participles	
Use descriptive words, adjectives, adverbs, prepositions, phrases, clauses, and conjunctions	Use Adjective, Adverb, Phrase, Conjunction	
Use complete sentences with correct subject-verb agreement, complete subject and predicate in a sentence, write complex sentences, distinguish among types of sentences, use a variety of complete sentences	Use Subject-Verb Agreement; Use Sentence Types	
<b>Students use appropriate capitalization and punctuation conventions in their compositions</b>	<b>Use Appropriate Capitalization and Punctuation</b>	<b>Capitalization and Punctuation</b>
Use conventions of capitalization	Use Conventions of Capitalization	
Use correct punctuation marks	Use Correct Punctuation	
<b>Students spell correctly</b>	<b>Students Spell Correctly</b>	<b>Spelling</b>
Use vowel patterns and plural rules to spell correctly	Use Vowel Patterns and Plural Rules	
Spell words with roots and suffixes, commonly used homophones, commonly confused terms, and contractions	Spell Roots, Suffixes, Homophones, Contractions	