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

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. Report Names are shortened further to accommodate report specifications.

Mathematics MPG Expanded Goal Structure	Mathematics MPG Goal Structure	Mathematics MPG Report Names
Operations and Algebraic Thinking	**Operations and Algebraic Thinking**	**Algebraic Thinking**
Represent and solve problems involving addition, subtraction, multiplication and division: Understand addition as putting together and adding to and understand subtraction as taking apart and taking from; solve problems involving the four operations; solve one- and two-step problems with unknowns in all positions; interpret products and whole number quotients; use multiplication and division to solve word problems in situations involving equal groups, arrays, and measurement quantities; identify and explain patterns of arithmetic.	Represent and Solve Problems	

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Understand and apply properties of operations and the relationship between addition and subtraction and understand and apply properties of multiplication and the relationship between multiplication and division: Work with equal groups to gain foundations for multiplication; determine whether a group of objects has an odd or even number of members; understand subtraction as an unknown-addend problem; understand the meaning of the equal sign; understand division as an unknown-factor problem.	Properties of Operations	
Number and Operations	**Number and Operations**	**Number and Operations**
Understand place value and count to tell the number of objects, know number names and the count sequence, and extend the counting sequence: Count within 1000 by 1s and 10s; skip-count by 5s, 10s, and 100s; read numerals and represent a number of objects with a numeral; count things arranged in a line, a rectangular array, or a circle, or as a scattered configuration; compose and decompose numbers into tens and ones; understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; compare numbers based on meanings of digits.	Understand Place Value, Counting, and Cardinality	
Use place value understanding and properties of operations to perform multi-digit arithmetic and develop understanding of fractions: Use concrete models, strategies, and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction; add and subtract multiples of 10; add and subtract within 1000; multiply one-digit whole numbers by multiples of 10; understand a fraction 1/b as the quantity formed by one part when the whole is partitioned	Number and Operations: Base Ten and Fractions	

into b equal groups; understand and represent a fraction as a number on the number line; compare fractions and explain equivalence of fractions.		
Measurement and Data	**Measurement and Data**	**Measurement and Data**
Solve problems involving measurement and estimation of lengths in standard units, intervals of time, liquid volumes, and masses of objects: Describe, compare and order measurable attributes of objects; relate addition and subtraction to length on a number line diagram; work with time and money; use geometric measurement to understand concepts of area and relate area to multiplication and to addition and recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	Solve Problems Involving Measurement	
Organize, represent, and interpret data: Ask and answer questions about the data points; use picture graphs and bar graphs to represent a data set with several categories; solve put-together, take-apart, and compare one- and two-step problems using information presented in a graph; classify objects and count the number of objects in each category; sort by category; generate measurement data in whole, half and quarter units and show the data by making a line plot.	Represent and Interpret Data	

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Geometry	Geometry	Geometry
Reason with shapes and their attributes: Identify and describe shapes having specified attributes; 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; compose two-dimensional or three-dimensional shapes to create a composite shape; partition shapes into two, three, or four equal shares using the words halves, thirds, half of, a third; partition a rectangle into rows and columns of same-size squares.	Reason with Shapes and Their Attributes	