

Grade 3 Mathematics

The grade 3 mathematics assessment presents a variety of items representing the six strands of the Wisconsin Model Academic Standards for Mathematics: Mathematical Processes (*Reasoning, Communication, Connections, Representation, Problem Solving*), Number Operations and Relationships, Geometry, Measurement, Statistics and Probability, and Algebraic Relationships. Assessment items in each category may appear without context and within the context of real-world situations. All test items are either selected-response (multiple-choice) or constructed response format. Some items require the use of mathematical tools including two sets of pattern blocks and a ruler with 1/2 inch and millimeter intervals. Calculator use is prohibited for all sessions of the test. Students performing at each level draw on a broad range of mathematical knowledge while applying skills and strategies to solve real-world and nonroutine mathematical problems. Each proficiency level presumes mastery at previous levels.

Advanced

Score range: 452 and above

At the beginning of third grade, students performing at the Advanced level explain the step-by-step processes and reasoning used to solve problems. Students read and interpret number lines, determine the fractional part of a set and solve word problems using two and three-digit numbers. Students identify and compare three-dimensional figures, demonstrate an understanding of single motion geometry (flip), and describe the position of a point on a first quadrant coordinate grid. Students apply knowledge of measuring with standard and nonstandard units. They compare, contrast, and analyze data to draw reasonable conclusions and relate data from tables, bar graphs, and spinners to real-world situations. Students analyze numbers to determine patterns using addition or subtraction and identify missing numbers in an equation involving addition and subtraction.

Proficient

Score range: 407-451

At the beginning of third grade, students performing at the Proficient level explain each step of a process when solving a multi-step problem. Students apply place value concepts in two- and three-digit numbers and skip count by 2, 3, 5, 10, 25, and 100. They count coins up to one dollar and use dollar and cent signs to identify monetary amounts. Students identify three-dimensional figures, predict what shape will be formed when combining two-dimensional shapes, and plot a point on the first quadrant of a coordinate grid. Students measure objects to the nearest inch or centimeter, estimate length and determine standard and non-standard units for measuring objects. They read and compare digital and analog clocks to the nearest minute. They use data from tables, bar graphs, and spinners to draw conclusions. Students identify numbers as even or odd when working with sets of twenty or less objects. They may describe a rule that is used in a numeric or geometric pattern, identify a missing number in an addition equation, and understand the commutative property of addition (i.e., order of numbers does not affect the sum).

Basic

Score range: 392–406

At the beginning of third grade, students performing at the Basic level explain a portion of the steps required to solve multi-step problems. Students add and subtract whole numbers in everyday contexts, identify pictorial representations of a number or a fraction when represented as a part of a whole and limited to $\frac{1}{2}$. Students identify and count the sides of two-dimensional shapes, solve problems involving combining shapes, and locate a picture on the first quadrant of a coordinate grid. Students choose the appropriate unit for the measuring objects and events. Students read simple bar graphs, tables and grids to compare data and use phrases such as “least likely” and “most likely” to describe the likelihood of an event. Students recognize simple number patterns and determine missing numbers within a pattern.

Minimal Performance

Score range: 391 and below

At the beginning of third grade, students performing at the Minimal Performance level explain solutions in brief, simple ways. They order whole numbers, identify place values up to the tens, identify the number of items in a set, and estimate solutions to addition and subtraction problems. Students identify two-dimensional shapes and their attributes including vertices (corners), as well as shapes formed by combining two-dimensional shapes. They demonstrate some knowledge of locating a point on the first quadrant of a coordinate grid. Students may identify units of measure for measuring real-world items using both US customary and metric units on a ruler and estimate length to the nearest inch and using non-standard units. Students read simple pictographs and identify the likelihood of an event involving a simple spinner. Students recognize geometric patterns and determine a missing element in a pattern, demonstrate an understanding that the equal sign means “the same as,” including when the operation is to the right of the equal sign, and identify missing operations.