

Grade 5 Mathematics

The grade 5 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 a set of pattern blocks, a ruler with 1/8 inch and millimeter intervals, and a calculator (four-function calculator availability is required for most 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. *The descriptions provide examples, rather than a complete list, of knowledge and skills students may demonstrate at each level.*

Performance Level	WKCE-CRT Performance Level Descriptions and Scale Score Ranges
Advanced 505 and above	<p>At the beginning of the year, students at the Advanced level demonstrate in-depth understanding of academic knowledge and skills tested on the WKCE-CRT by:</p> <ul style="list-style-type: none"> • justifying mathematical ideas used to solve real-world word problems using pictures, words or symbols. • adding and subtracting with and without regrouping. • demonstrating fluency of basic multiplication facts. • determining operations to use when working with US currency in real-world situations. • identifying equivalent fractions. • adding fractions with common denominators with and without context. • comparing shapes with one or more lines of symmetry. • comparing and describing attributes of two- and three-dimensional figures. • discriminating between parallel and perpendicular lines. • connecting a series of plotted points on a first quadrant coordinate grid. • decomposing two-dimensional figures. • identifying the net (flat pattern) of three-dimensional shapes when given the shapes attributes. • identifying appropriate units of measurement involving liquid capacity. • using appropriate tools to measure to the nearest ¼ inch and centimeter. • estimating length through direct observations and direct measurement. • converting within a system of measurement (US customary or metric). • using formulas for perimeter and area. • identifying median, range and mode of a given set of data. • predicting the probability of events using tables. • extending one- and two-step numeric and geometric patterns. • solving inequalities when computing with digit-numbers.

Performance Level	WKCE-CRT Performance Level Descriptions and Scale Score Ranges
Proficient 463 –504	<p>At the beginning of the year, students at the Proficient level demonstrate competency in the academic knowledge and skills tested on the WKCE-CRT by:</p> <ul style="list-style-type: none"> • communicating clearly and with some detail the mathematical ideas used to solve a one-step real-world problem.. • solving addition and subtraction problems with regrouping. • solving multiplication and division of basic facts. • identifying multiples of a number. • identifying equivalent fractions. • adding and subtracting fractions with common denominators. • calculating change with US currency. • identifying and comparing attributes of three-dimensional figures using terms such as faces, edges, vertices (corners), and bases. • identifying three-dimensional figures from various perspectives. • plotting a set of points on a first quadrant coordinate grid. • using appropriate units and tools of measure to the nearest $\frac{1}{4}$ inch or centimeter. • reading Fahrenheit and Celsius thermometers to the nearest 5 degrees. • converting within the US customary and metric systems of measurement. • applying formulas for perimeter and area of two-dimensional shapes. • identifying median, range and mode of a set of data. • determining how to collect a specific set of data. • identifying likelihood of events expressed in a table. • solving two-step equations involving order of operations. • Finding the missing number of a numeric pattern. • Describing a geometric pattern in a new way.
Basic 445 –462	<p>At the beginning of the year, students at the Basic level demonstrate some academic knowledge and skills tested on the WKCE-CRT by:</p> <ul style="list-style-type: none"> • communicating mathematical ideas used to solve real-world problems using some mathematical terminology to explain solutions. • order numbers from least to greatest. • identifying points on a number line. • solve basic addition and subtraction equations with and without regrouping. • solving real-world problems involving estimated cost, total cost and making change. • combining pattern blocks to create new figures. • identifying attributes of three-dimensional figures using faces, edges, vertices (corners) and bases. • plotting points on a first quadrant coordinate grid. • analyzing first quadrant coordinate grids for accuracy of plotted points. • reading, interpreting and using appropriate tools of measurement to the nearest $\frac{1}{2}$ inch or centimeter. • describing differences between perimeter and area.

Performance Level	WKCE-CRT Performance Level Descriptions and Scale Score Ranges
	<ul style="list-style-type: none"> • reading and interpreting simple bar graphs. • identifying spinners that give equal and unequal chances. • extending a simple geometric or numeric pattern. • solving simple one-step multiplication and division equations with a missing variable. • using single digits and the commutative or associative properties to solve problems.
Minimal Performance 444 and below	<p>At the beginning of the year, students at the Minimal level demonstrate very limited academic knowledge and skills tested on the WKCE-CRT by:</p> <ul style="list-style-type: none"> • communicating simple mathematical ideas using numbers and pictures. • interpreting place value order numbers from least to greatest. • identifying equivalent word and numerical forms of numbers. • adding monetary amounts to find total cost. • combining pattern blocks to construct simple two-dimensional shapes. • locating ordered pairs on a first quadrant coordinate grid. • Identifying appropriate units of measure. • reading, interpreting and measuring with appropriate measurement tools to the nearest inch or centimeter. • determining perimeter or area. • interpreting data in a line plot. • reading and interpreting simple bar graphs. • recognizing a simple numeric or geometric pattern. • demonstrating an understanding of symbols (<, >, =) in simple addition and subtraction sentences. • using the commutative property involving the addition of single digits.