

Grade 4 Proficiency Level Descriptors

Minimal

Students performing at the minimal level are beginning to apply their mathematics knowledge and skills. They are learning to order and compare whole numbers, fractions, and decimals, and have a limited understanding of problem solving strategies and use of estimation. They have difficulty solving problems using multiplication and division of whole numbers, addition and subtraction of simple fractions and decimals. Students are beginning to identify, analyze, and represent simple relationships and growing patterns, but have limited understanding of simplifying and comparing problems using symbols and orders of operations. They may identify relationships between geometric lines and two dimensional shapes, but inaccurately locate positions on grids and maps. They are starting to identify geometric transformations of a shape, and attempt to measure customary capacity and metric length, and weight. Students usually have a limited understanding of how to use formulas to calculate the perimeter and area of a rectangle. They begin to read and interpret data from simple tables and graphs. They may have difficulty with basic concepts of probability.

Partial

Students performing at the partial level inconsistently apply their mathematics knowledge and skills. They begin to identify, represent, order, and compare, relationships of whole numbers, fractions, and decimals, but may have difficulty determining appropriate problem solving strategies and use of estimation. Students are beginning to solve problems using multiplication and division of whole numbers, addition and subtraction of simple fractions and decimals, or interpreting the meaning of the solution. Students may identify simple relationships and analyze, represent, and extend patterns. They evaluate, simplify and compare some problems using algebraic expressions, symbols, and order of operations. They have trouble identifying and describing relationships between geometric lines, two dimensional shapes, or locating ordered pairs in the first quadrant of a coordinate grid and regions on a map. Students distinguish some geometric transformations and recognize some relationships between degrees of a rotation and fractions. Students may inaccurately measure and estimate metric and customary units, but may identify relationships among units of measurement. They inconsistently determine the perimeter and area of a rectangle and the relationship between the area of right triangles and parallelograms. Students may have difficulty reading and interpreting data from tables and graphs and distinguishing between outliers and clusters. They apply some basic concepts of probability and are learning to interpret probable outcomes.

Grade 4 Proficiency Level Descriptors

Sufficient

Students performing at the sufficient level apply mathematics knowledge and skills appropriately. They represent, order, compare, model, and identify relationships of whole numbers, fractions, and decimals. They determine appropriate problem solving strategies and use of estimation. Students solve problems using multiplication and division of whole numbers, addition and subtraction of simple fractions and decimals, and interpret the meaning of the solution. Students identify simple relationships and analyze, represent, and extend patterns. They evaluate, simplify, and compare problems using algebraic expressions, symbols, and order of operations. They identify and describe relationships between geometric lines and two dimensional shapes. Students locate ordered pairs in the first quadrant of a coordinate grid and regions on a map. They identify geometric transformations and relationships between degrees of a rotation and fractions. Students measure and estimate metric and customary units and identify relationships among units of measurement. They determine the perimeter and area of a rectangle and understand the relationship between the area of right triangles and parallelograms. Students read and interpret data using tables and graphs, and distinguish between outliers and clusters. They apply basic concepts of probability and interpret probable outcomes, with or without replacement.

Substantial

Students performing at the substantial level consistently apply mathematics knowledge and skills appropriately. They skillfully order, compare, model, and identify relationships of whole numbers, fractions, and decimals. They apply appropriate problem solving strategies and use of estimation. Students consistently solve problems using multiplication and division of whole numbers, addition and subtraction of simple fractions and decimals, and interpret the meaning of the solution. Students accurately analyze, represent, and extend patterns, and fluently evaluate, simplify and compare problems using algebraic expressions, symbols, and order of operations. They identify and describe relationships between geometric lines and two dimensional shapes with ease. Students accurately locate ordered pairs in the first quadrant of a coordinate grid and regions on a map. They consistently identify geometric transformations and relationships between degrees of a rotation and fractions. Students measure and estimate metric and customary units and identify relationships among units of measurement. They easily determine the perimeter and area of a rectangle, and have a solid understanding of the relationship between the area of right triangles and parallelograms. Students interpret and apply data using tables and graphs, and distinguish between outliers and clusters. They apply concepts of probability and consistently interpret probable outcomes, with or without replacement.