

Grade 3 FCAT 2.0 Mathematics Achievement Level Descriptions

Florida Department of Education/Office of Assessment January 2012

Grade 3 FCAT 2.0 Mathematics Reporting Category–Number: Operations, Problems, and Statistics

Students performing at the mastery level of this reporting category will be able to use number concepts and computation skills to solve real-world problems. Students will be able to successfully create, analyze, and represent patterns and relationships. Students will also be able to successfully construct and analyze data displays and graphs.

Achievement Level	Achievement Level Descriptions
Level 5	 <u>Students will consistently be able to</u> identify models of and/or solve problems involving multiplication and/or division situations; recognize and/or solve a problem involving an equivalent representation of an equation or expression by applying number properties, including the distributive, commutative, associative, identity, and zero properties; describe and apply the inverse property to solve a real-world problem and to check the solution of a problem involving multiplication or division; extend numeric or graphic patterns beyond the next element or find one or more missing elements in a numeric or graphic pattern, describe the rule for a pattern or the relationship between whole numbers when the operation is addition, subtraction, or multiplication; represent, identify, compare, order, estimate, and solve addition and subtraction problems involving whole numbers through the hundred thousands place; solve non-routine problems by making a table, chart, or list and searching for patterns; and construct, analyze, and draw conclusions about data displayed in a frequency table, bar graph, pictograph, or line plot.

Level 4	 <u>Students will usually be able to</u> identify models of and/or solve problems involving multiplication and/or division situations; recognize and/or solve a multiplication problem involving equivalent representation of an equation or expression by applying the associative, commutative, identity, or zero properties; apply the inverse property to solve a real-world problem and to check the solution of a problem involving multiplication or division; extend numeric or graphic patterns beyond the next element or find one or more missing elements in a numeric or graphic pattern or the relationship between whole numbers when the operation is addition or subtraction; represent, identify, compare, order, and solve addition and subtraction problems involving whole numbers through the hundred thousands place; estimate multi-step addition or subtraction problems through the thousands place, which may include real-world situations; solve non-routine problems by making a list or searching for patterns; identify the correct frequency table, bar graph, pictograph, and line plot of a given data set; and analyze and interpret data on a bar graph, pictograph, frequency table, or line plot to solve problems.
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Level 3	 <u>Students will generally be able to</u> identify models of multiplication and/or division situations for basic multiplication facts and/or the related division facts; identify an equivalent representation of an equation or expression by using the commutative property or identity property for multiplication and division and the zero property of multiplication; identify fact families that demonstrate the inverse relationship between multiplication and division; identify the next element in a graphic or numeric pattern; describe the rule for a pattern or the relationship between whole numbers when the operation is addition; represent, identify, compare, and/or order whole numbers through the hundred thousands place; solve real-world, one-step addition or subtraction problems with whole numbers through the hundred thousands place; estimate one-step addition or subtraction problems through the thousands place, which may include real-world situations; solve non-routine problems by searching for patterns; identify the correct bar graph, pictograph, or frequency table of a given set of data; and interpret data on a bar graph or pictograph to solve problems.
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Level 2	 <u>Students may be able to demonstrate limited ability to</u> identify some models of multiplication and/or division for basic multiplication facts and/or the related division facts; identify an equivalent representation of an equation or expression by using the identity property for multiplication and division and/or the zero property of multiplication; identify fact families that demonstrate the inverse relationship between multiplication and division; identify the next element in a graphic pattern; identify and compare whole numbers through the hundred thousands place; solve real-world, one-step addition and subtraction problems with whole numbers through the thousands place; estimate a whole number through the hundred thousands place; estimate one-step addition problems through the thousands place; identify the correct pictograph or frequency table of a given set of data; and interpret data on a pictograph to solve problems.
Level 1	Performance at this level indicates an inadequate level of success with the challenging content of the <i>Next Generation Sunshine State Standards</i> for mathematics.

Grade 3 FCAT 2.0 Mathematics Reporting Category–Geometry and Measurement

Students performing at the mastery level of this reporting category will be able to describe and analyze properties of two-dimensional shapes, including symmetry and congruence. Students will be able to successfully solve problems related to perimeter. Students will also be able to successfully measure objects and tell time.

Achievement Level	Achievement Level Descriptions
Level 5	 <u>Students will consistently be able to</u> describe, analyze, compare, and classify a two-dimensional shape using sides and angles, including classifying types of quadrilaterals or triangles; compose, decompose, and transform polygons to analyze and create other polygons; build, draw, identify, and analyze two-dimensional shapes from several orientations in order to examine and apply congruence; identify or draw lines of symmetry and/or reflections of two-dimensional shapes from several orientations; solve real-world problems involving perimeter, which may include using an appropriate tool to measure the dimensions of the object; use properties of polygons to deduce the lengths of a side or sides of a polygon given the perimeter and/or the lengths of the remaining sides of the polygon; measure objects using fractional parts of linear units; tell time; and determine the amount of time elapsed.

Level 4	 <u>Students will usually be able to</u> describe, compare, and classify two-dimensional shapes using sides and angles, including classifying types of quadrilaterals; compose, decompose, and transform polygons to create and identify other polygons; build, draw, and identify two-dimensional shapes from several orientations in order to examine and apply congruence; identify or draw lines of symmetry and/or reflections of two-dimensional shapes; calculate the perimeter of polygons or figures composed of composite rectangles when the length of each side is given or can be deduced; select appropriate units and tools to measure the dimensions of a regular polygon and calculate its perimeter; measure objects to the nearest whole millimeter, centimeter, or inch and to the nearest half or quarter inch; tell time; determine the amount of time elapsed to the nearest hour or half hour; determine elapsed time of days, weeks, months, or years; and determine an amount of elapsed time within the same clock hour to the nearest minute.

Level 3	 <u>Students will generally be able to</u> identify the name of a polygon based on the number of sides, and identify types of quadrilaterals; identify an attribute of a given polygon, such as parallel line segments, perpendicular line segments, a vertex, or types of angles; compose, decompose, and transform polygons to build other polygons; identify a figure that is a single reflection of a two-dimensional shape, or identify congruent polygons; select appropriate units or tools to solve problems involving perimeter; calculate the perimeter of polygons with 3, 4, 5, 6, 8, or 10 sides when all dimensions are given; measure objects to the whole centimeter or inch; tell time; and determine the amount of time elapsed to the nearest hour.
Level 2	 <u>Students may be able to demonstrate limited ability to</u> identify the name of a polygon based on the number of sides and/or vertices; compose, decompose, and transform polygons to build other polygons; identify congruent polygons; calculate the perimeter of regular polygons or polygons with 3 or 4 sides when all dimensions are given; measure objects to the whole centimeter or inch; and tell time.
Level 1	Performance at this level indicates an inadequate level of success with the challenging content of the <i>Next Generation Sunshine State Standards</i> for mathematics.

Grade 3 FCAT 2.0 Mathematics Reporting Category–Number: Fractions

Students performing at the mastery level of this reporting category will be able to use models to represent fractions and equivalent fractions, including fractions greater than one. Students will be able to successfully compare and order fractions.

Achievement Level	Achievement Level Descriptions
Level 5	 <u>Students will consistently be able to</u> represent and identify a fraction, including fractions greater than one, using area, set, and linear models, or vice versa; compare and order fractions, including fractions greater than one, using models and strategies; represent and identify equivalent fractions, including fractions greater than one, using models; and describe how the size of the fractional part is related to the number of equal-sized pieces in the whole.
Level 4	 <u>Students will usually be able to</u> identify a fraction, including fractions greater than one, using area, set, and linear models, or vice versa; compare and order fractions, including fractions greater than one, using models or strategies; identify an equivalent fraction, excluding fractions greater than one, using a model; and recognize how the size of the fractional part is related to the number of equal-sized pieces in the whole.

Level 3	 <u>Students will generally be able to</u> identify a fraction from an area or set model, or vice versa; identify fourths or halves from a linear model, or vice versa; compare and order fractions with like denominators using a model; and identify an equivalent fraction for one-half and one-fourth using a model.
Level 2	 <u>Students may be able to demonstrate limited ability to</u> identify fourths or halves from an area, set, or linear model, or vice versa; compare two fractions with like denominators using a model; and identify an equivalent fraction for one-half or one-fourth using a model.
Level 1	Performance at this level indicates an inadequate level of success with the challenging content of the <i>Next Generation Sunshine State Standards</i> for mathematics.