

Third Grade Benchmarks Mathematics

Level 5 – Student performance exceeds year-end standard

Level 4 – Student performance meets year-end standard

Level 3 – Student performance approaches year-end standard

Level 2 – Student demonstrates limited performance to year-end standard

Level 1 – Student does not yet evidence understanding or application of skills related to year-end standard

NOTE: MPI and MPII performance levels are determined based on performance expectations at the time of reporting

Student Performance Standard	Level 1	Level 2	Level 3	Level 4	Level 5
<i>Operations and Algebraic Thinking:</i>					
Fluently multiply with products up to 100.	Multiplies with products up to 100 with guidance.	Inconsistently multiplies within 100; does not recognize errors. Evidences limited memorization of multiplication facts; relies on multiplication charts and other supports.	Fluently (mentally) multiply within 100 with minimal errors; self-corrects most errors. Evidences memorization of some multiplication facts.	Fluently (mentally) multiplies within 100 with no errors. Evidences memorization of all multiplication facts.	In addition to Level 4 performance, justifies the product of a multiplication equation.
Fluently divide with dividends up to 100.	Divides with quotients up to 100 with guidance.	Inconsistently divides within 100; does not recognize errors; evidences limited understanding of the relationship between multiplication and division; relies on multiplication charts and other supports.	Fluently (mentally) divides with quotients up to 100 with few errors by using strategies such as the relationship between multiplication and division; self-corrects most errors.	Fluently (mentally) divides with quotients up to 100 with no errors by using strategies such as the relationship between multiplication and division.	In addition to Level 4 performance, justifies the product of a division equation.
Solve two-step word problems using all four operations.	Solves word problems with guidance.	Inconsistently solves two-step word problems; does not recognize errors; evidences limited understanding of equations; evidences limited understanding of mental computation and estimation strategies.	Solves two-step word problems using all four operations with few errors; self-corrects most errors; represents some problems with equations and variables; beginning to assess the reasonableness of answers using mental computation and estimation strategies including rounding.	Solves two-step word problems using all four operations with no errors; represents problems with equations and variables; assesses the reasonableness of answers using mental computation and estimation strategies including rounding.	In addition to Level 4 performance, explains why the operations that were applied to the problem were reasonable.

<i>Number and Operations in Base Ten:</i>					
Round whole numbers up to the nearest 10 or 100.	Rounds whole numbers with guidance.	Inconsistently rounds whole numbers to the nearest 10 or 100; does not recognize errors; evidences limited understanding of place value.	Uses place value to round whole numbers to the nearest 10 or 100 with few errors; self-corrects most errors.	Consistently uses place value to round whole numbers to the nearest 10 or 100 with no errors.	In addition to Level 4, compares the result of rounding a number to the nearest 10 and to the nearest 100 and determines which estimate is more appropriate for a given situation.
Fluently add numbers with a sum up to 1000.	Adds numbers with a sum up to 1000 with guidance.	Inconsistently adds numbers with a sum up to 1000; does not recognize errors; evidences limited use of adding strategies.	Fluently (mentally) adds numbers with a sum up to 1000 with few errors by using strategies based on place value, properties of operations, and the relationship between addition and subtraction; self-corrects most errors.	Fluently (mentally) adds numbers with a sum up to 1000 with no errors by using strategies based on place value, properties of operations, and the relationship between addition and subtraction.	In addition to Level 4 performance, justifies the sum of an addition problem.
Fluently subtract numbers with a difference up to 1000.	Subtracts numbers with a difference up to 1000 with guidance.	Inconsistently subtracts numbers with a difference up to 1000; does not recognize errors; evidences limited use of subtraction strategies.	Fluently (mentally) subtracts numbers with a difference up to 1000 with few errors by using some of the following strategies: place value, properties of operations, and the relationship between addition and subtraction; self-corrects most errors.	Fluently (mentally) subtracts numbers with a difference up to 1000 with no errors by using strategies based on place value, properties of operations, and the relationship between addition and subtraction.	In addition to Level 4, justifies the difference of a subtraction problem.

<i>Number and Operations – Fractions:</i>					
Represent fractions on a number line.	Represents fractions on a number line with guidance.	Evidences limited understanding of how to represent a fraction on a number line; evidences limited ability to partition a whole into equal fractional parts (1/b); evidences limited ability to identify multiple shares of a whole after	Evidences some understanding of how to represent a fraction on a number line; evidences some ability to partition a whole into equal fractional parts (1/b); evidences some ability to identify multiple shares of a whole after	Consistently evidences understanding of how to represent a fraction on a number line; consistently evidences the ability to partition a whole into equal fractional parts (1/b); consistently evidences the ability to identify multiple shares	In addition to Level 4 performance, applies understanding of fractions to real world problems.

		partitioning the whole (a/b); does not recognize most errors.	partitioning the whole (a/b); self-corrects most errors.	of a whole after partitioning the whole (a/b).	
Recognize and generate simple equivalent fractions.	Recognizes and generates equivalent fractions with guidance.	Evidences limited understanding of equivalent fractions and limited ability to generate equivalent fractions.	Evidences some understanding of equivalent fractions; able to generate some equivalent fractions; able to recognize some fractions that are equivalent to whole numbers.	Consistently evidences understanding that two fractions are equivalent or equal if they are the same size or the same point on a number line; consistently able to generate equivalent fractions; consistently able to recognize fractions that are equivalent to whole numbers.	In addition to Level 4 performance, applies understanding of equivalent fractions to real world problems.

<i>Measurement and Data:</i>					
Tell and write time to the nearest minute.	Tells and writes time to the nearest minute with guidance.	Inconsistently tells and writes time to the nearest minute; does not recognize errors.	Tells and writes time to the nearest minute with few errors; self-corrects most errors.	Consistently tells and writes time to the nearest minute with no errors.	N/A
Solve problems for time intervals.	Solves problems for time intervals with guidance.	Inconsistently measures time intervals in minutes; does not recognize errors; solves word problems involving addition or subtraction of time intervals with guidance and scaffolding.	Measures time intervals in minutes with few errors; self-corrects most errors; solves some word problems involving addition and subtraction of time intervals.	Consistently measures time intervals in minutes with no errors; consistently solves word problems involving addition and subtraction of time intervals.	In addition to Level 4 performance, formulates and solves addition and subtraction story problems that involve measurement of time intervals.
Estimate and measure liquid volumes and masses of objects.	Estimates and measures liquid volumes and masses with guidance.	Inconsistently estimates and measures liquid volumes and masses; does not recognize errors; requires guidance and scaffolding to determine how to solve for volume and mass.	Estimates and measures liquid volumes and masses of some objects using standard units (grams, kilograms, liters) with few errors; self-corrects most errors; uses some operations to solve one-step word problems involving masses and volumes.	Consistently estimates and measures liquid volumes and masses of objects using standard units (grams, kilograms, liters) with no errors; consistently uses all four operations to solve one-step word problems involving masses and volumes.	In addition to Level 4, critiques incorrect estimates using standard units.

Draw a scaled graph to represent a data set.	Draws a scaled graph to represent a data set with guidance.	Draws a scaled picture graph or a scaled bar graph to represent a data set with few categories; requires guidance and scaffolding to structure and populate graph.	Draws a scaled picture graph or a scaled bar graph to represent a data set with several categories with few errors; self-corrects most errors.	Consistently draws a scaled picture graph and a scaled bar graph to represent a data set with several categories with no errors.	In addition to Level 4 performance, analyzes the data in a scaled graph.
Measure and solve problems for area using square units.	Measures and solves problems for area with guidance.	Inconsistently measures area; does not recognize errors; requires guidance and scaffolding to solve area problems.	Measures area by counting square units with few errors; self-corrects most errors; uses multiplication and addition to solve some area problems.	Consistently measures area by counting square units with no errors; consistently uses multiplication and addition to solve area problems.	In addition to Level 4 performance, formulates and solves area problems using multiplication and division.
Solve problems for perimeter.	Solves problems for perimeter with guidance.	Inconsistently solves some perimeter problems; does not recognize errors.	Solves some perimeter problems with few errors; self-corrects most errors.	Consistently solves perimeter problems when given side lengths and when a side length is unknown with no errors.	In addition to Level 4 performance, formulates and solves perimeter problems using multiplication and division.

Geometry:

Partition shapes into parts with equal areas.	Partitions shapes into parts with guidance.	Inconsistently partitions shapes; inconsistently expresses the area of each part as a fraction; does not recognize errors.	Partitions some shapes into parts with equal areas with few errors; expresses the area of each part as a fraction with few errors; self-corrects most errors.	Consistently partitions shapes into parts with equal areas with no errors; consistently expresses the area of each part as a fraction.	In addition to Level 4 performance, creates a shape or figure with equal parts and identifies the fraction each part represents.
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