First Grade Math Benchmarks (Updated September 2015)

Operations and Algebraic Thinking

1. Solves word problems using addition and subtraction within 20

Trimester	1	2	3	4
1st	-Student is rarely able to solve addition and subtraction word problems, up to 10	-Student can sometimes use manipulatives or number line to solve addition and subtraction word problems, up to 10	-Student can typically use manipulatives or number line to solve addition and subtraction word problems, up to 10	-Student consistently solves addition and subtraction word problems, above 10
2nd	-Student is rarely able to solve addition and subtraction word problems, up to 20	-Student can sometimes use manipulatives or number line to solve addition and subtraction word problems, up to 20	-Student can typically use manipulatives or number line to solve addition and subtraction word problems, up to 20	-Student consistently solves addition and subtraction word problems, above 20
3rd	-Student is rarely able to solve addition and subtraction word problems, up to 20	-Student can sometimes use manipulatives or number line to solve addition and subtraction word problems, up to 20	-Student can typically use manipulatives or number line to solve addition and subtraction word problems, up to 20	-Student consistently solves addition and subtraction word problems, above 20

2. Understands the relationship within a fact family

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	-Student can rarely identify similarities in fact families.	-Student can sometimes identify similarities in fact families.	-Student can typically identify similarities in fact families.	-Student can consistently identify similarities in fact families. -Can list facts in fact family
3rd	-Student can rarely list facts that	-Student can sometimes list facts	-Student can typically list facts	-Student can consistently list

	are in a fact family -Student does not, or rarely, understands how facts are related	that are in a fact family -Student shows limited understanding how facts are related	that are in a fact family -Student understands how facts are related	facts that are in a fact family -Understands how facts are related and can give detailed explanation

3. Understands subtraction as an unknown addend problem

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	-Student can rarely use strategies to find missing addends in number sentence or number story (count up, subtract, counters, etc)	-Student can sometimes use strategies to find missing addends in number sentence or number story (count up, subtract, counters, etc)	-Student can typically use strategies to find missing addends in number sentence or number story (count up, subtract, counters, etc)	-Student can consistently use strategies to find missing addends in number sentence or number story (count up, subtract, counters, etc) -Is able to do so with above grade level number problems
3rd	-Student can rarely use strategies to find missing addends in number sentence or number story (count up, subtract, counters, etc)	-Student can sometimes use strategies to find missing addends in number sentence or number story (count up, subtract, counters, etc)	-Student can typically use strategies to find missing addends in number sentence or number story (count up, subtract, counters, etc)	-Student can consistently use strategies to find missing addends in number sentence or number story (count up, subtract, counters, etc) -Is able to do so with above grade level number problems

4. Can add and subtract within 20

Trimester	1	2	3	4
1st	-Student is rarely able to write and solve addition and subtraction number sentences - Student is rarely able to add and	-Student can sometimes write and solve addition and subtraction number sentences -Student can sometimes add and	-Student can typically write and solve addition and subtraction number sentences -Student can typically add and	-Student can consistently write and solve addition and subtraction number sentences -Student can consistently add

	subtract numbers within 10, using appropriate strategies (manipulatives, counting on, pictures, etc)	subtract numbers within 10, using appropriate strategies (manipulatives, counting on, pictures, etc)	subtract numbers within 10, using appropriate strategies (manipulatives, counting on, pictures, etc)	and subtract numbers greater than 10, using appropriate strategies (manipulatives, counting on, pictures, etc)
2nd	- Student is rarely able to write and solve addition and subtraction number sentences - Stu Student is rarely able to dent cannot, or can rarely, add and subtract numbers within 20, using appropriate strategies (manipulatives, counting on, pictures, etc)	-Student can sometimes write and solve addition and subtraction number sentences -Student can sometimes add and subtract numbers within 20, using appropriate strategies (manipulatives, counting on, pictures, etc)	-Student can typically write and solve addition and subtraction number sentences -Student can typically add and subtract numbers within 20, using appropriate strategies (manipulatives, counting on, pictures, etc)	-Student can consistently write and solve addition and subtraction number sentences -Student can consistently add and subtract numbers greater than 20, using appropriate strategies (manipulatives, counting on, pictures, etc)
3rd	- Student is rarely able to write and solve addition and subtraction number sentences - Student is rarely able to add and subtract numbers within 20, using appropriate strategies (manipulatives, counting on, pictures, etc)	-Student can sometimes write and solve addition and subtraction number sentences -Student can sometimes add and subtract numbers within 20, using appropriate strategies (manipulatives, counting on, pictures, etc)	-Student can typically write and solve addition and subtraction number sentences -Student can typically add and subtract numbers within 20, using appropriate strategies (manipulatives, counting on, pictures, etc)	-Student can consistently write and solve addition and subtraction number sentences -Student can consistently add and subtract numbers greater than 20, using appropriate strategies (manipulatives, counting on, pictures, etc)

5. Can fluently add and subtract within 10-

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	- Student is rarely able to add facts with sums up to 10	- Student can sometimes add facts with sums up to 10	- Student can typically add facts with sums up to 10	- Student can consistently add facts with sums above 10

3rd	- Student is rarely able to add and subtract facts with sums within 10	- Student can sometimes add and subtract facts with sums within 10	-Student can fluently add and subtract all facts within 10	-Student can fluently add and subtract facts greater than 10

6. Understands the meaning of the equal sign

Trimester	1	2	3	4
All	-Student can rarely determine whether math statements are true or false	-Student can sometimes determine whether math statements are true or false	-Student can typically determine whether math statements are true or false	-Student can consistently determine whether math statements are true or false, including those with above grade level numbers involved

7. Displays number sense

Trimester	1	2	3	4
All	-Student cannot use, or rarely can use, and understand numbers -Student does not understand relative value and size of numbers -Student rarely understands number relationships -Student is rarely able to apply useful strategies when completing math tasks -Student rarely shows problem solving skills	-Student can sometimes use and understand numbers -Student sometimes understands relative value and size of numbers -Student sometimes understands number relationships -Student is sometimes able to apply useful strategies when completing math tasks -Student sometimes shows problem solving skills	-Student can typically use and understand numbers -Student typically understands relative value and size of numbers -Student typically understands number relationships -Student is typically able to apply useful strategies when completing math tasks -Student typically shows problem solving skills	-Student can use and understand numbers above grade level -Student understands relative value and size of numbers above grade level -Student understands number relationships, including those above grade level -Student is consistently able to apply useful strategies when completing math tasks -Student shows above grade level problem solving skills

8. Can use mental math strategies

Trimester	1	2	3	4
All	-Student cannot, or can rarely, make calculations in head -Student cannot, or can rarely, use strategies to figure out math problems mentally (making a 10, counting on, visualizing, etc) -Student does not show mastery for facts that have been taught -Student does not understand math concepts and cannot solve problems in a logical way	-Student can sometimes make calculations in head -Student sometimes uses strategies to figure out math problems mentally (making a 10, counting on, visualizing, etc) -Student shows partial mastery for facts that have been taught -Student sometimes understands math concepts and can sometimes solve problems in a logical way	-Student can typically make calculations in head -Student typically uses strategies to figure out math problems mentally (making a 10, counting on, visualizing, etc) -Student typically shows mastery for facts that have been taught -Student typically understands math concepts and can solve problems in a logical way	-Student can consistently make calculations in head, including those with above grade level numbers -Student consistently uses strategies to figure out math problems mentally (making a 10, counting on, visualizing, etc) -Student shows mastery for facts that have been taught, and those that have not yet been taught -Student understands math concepts and can solve problems in a logical way

Number and Operation in Base 10

1. Can count to 120 from a given number

Trimester	1	2	3	4
All	-Student is rarely able to read and write numbers up to 120 (Starting at any number when doing so)	-Student can sometimes read and write numbers up to 120 (Starting at any number when doing so)	-Student can typically read and write numbers up to 120 (Starting at any number when doing so)	-Student can consistently read and write numbers greater than 120 (Starting at any number when doing so)

2. Understands 2 Digit numbers represent 10's and 1's

Trimester	1	2	3	4

1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	Student is rarely able to make groups of hundreds, tens, and ones.	Student can sometimes make groups of hundreds, tens, and ones.	Student can typically make groups of hundreds, tens, and ones.	Student can consistently make groups of hundreds, tens, and ones.
3rd	Student is rarely able to make groups of hundreds, tens, and ones.	Student can sometimes make groups of hundreds, tens, and ones.	Student can typically make groups of hundreds, tens, and ones.	Student can consistently make groups of hundreds, tens, and ones.

3. Can compare two 2-Digit numbers using <, =, >

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	Student cannot, or can rarely, compare two 2-digit numbers using symbols.	Student can sometimes compare two 2-digit numbers using symbols.	Student can typically compare two 2-digit numbers using symbols.	Student can compare two 2- or 3-digit numbers using symbols, can explain relationship
3rd	Student cannot, or can rarely, compare two 2-digit numbers using symbols.	Student can sometimes compare two 2-digit numbers using symbols.	Student can typically compare two 2-digit numbers using symbols.	Student can compare two 2- or 3-digit numbers using symbols, can explain relationship

4. Understands place value to add and subtract within 100

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	-Student cannot, or rarely can, count on by tens and ones, and add tens and ones, to find sums within 100.	-Student can sometimes count on by tens and ones, and add tens and ones, to find sums within 100.	-Student can typically count on by tens and ones, and add tens and ones, to find sums within 100.	-Student can consistently count on by tens and ones, and add tens and ones, to find sums greater than 100.
3rd	-Student cannot, or rarely can, count on by tens and ones, and add tens and ones, to find sums	-Student can sometimes count on by tens and ones, and add tens and ones, to find sums	-Student can typically count on by tens and ones, and add tens and ones, to find sums within	-Student can consistently count on by tens and ones, and add tens and ones, to find sums greater

	within 100.	within 100.	100.	than 100.

Measurement and Data

1. Measures and compares lengths

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	-Student can rarely compare and order the lengths of objects - Student can rarely measure the lengths of objects using nonstandard units.	-Student can sometimes compare and order the lengths of objects - Student can sometimes measure the lengths of objects using nonstandard units.	-Student can typically compare and order the lengths of objects - Student can typically measure the lengths of objects using nonstandard units.	-Student can consistently compare and order the lengths of objects - Student can consistently measure the lengths of objects using nonstandard units.
3rd	-Student can rarely compare and order the lengths of objects - Student can rarely measure the lengths of objects using nonstandard units.	-Student can sometimes compare and order the lengths of objects - Student can sometimes measure the lengths of objects using nonstandard units.	-Student can typically compare and order the lengths of objects - Student can typically measure the lengths of objects using nonstandard units.	-Student can consistently compare and order the lengths of objects - Student can consistently measure the lengths of objects using nonstandard units.

2. Tells and write time to the hour and half hour

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	-Student is rarely able to tell and write time to the hour	-Student can sometimes tell and write time to the hour	-Student can typically tell and write time to the hour	-Student can consistently tell and write time to the hour and half hour -Is beginning to work with elapsed time
3rd	-Student is rarely able to tell and	-Student can sometimes tell and	-Student can typically tell and	-Student can consistently tell and

	write time to the half hour	write time to the half hour	write time to the hour and half hour	write time to the hour, half hour, and quarter hour -Student is able to work with elapsed time

3. Uses charts and graphs to represent and interpret data

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	-Student is rarely able to interpret data on a tally chart, picture graph, and bar graph - Student is rarely able to use data to make simple graphs	-Student can sometimes interpret data on a tally chart, picture graph, and bar graph -Student can sometimes use data to make simple graphs	-Student can typically interpret data on a tally chart, picture graph, and bar graph -Student can typically use data to make simple graphs	-Student can consistently interpret data on a tally chart, picture graph, and bar graph -Student can consistently use data to make more complex graphs
3rd	- Student is rarely able to interpret data on a tally chart, picture graph, and bar graph - Student is rarely able to use data to make simple graphs	-Student can sometimes interpret data on a tally chart, picture graph, and bar graph -Student can sometimes use data to make simple graphs	-Student can typically interpret data on a tally chart, picture graph, and bar graph -Student can typically use data to make simple graphs	-Student can consistently interpret data on a tally chart, picture graph, and bar graph -Student can consistently use data to make more complex graphs

4. Knows value of coins and can count money to a dollar

Trimester	1	2	3	4
1st	-Student is rarely able to identify pennies and nickels and knows value -Is rarely able to count by 5's and 1's	-Student can sometimes identify pennies and nickels and knows value -Can sometimes count by 5's and 1's	-Student can typically identify pennies and nickels and knows value -Can typically count by 5's and 1's	-Student can consistently identify pennies, nickels and dimes, and knows value -Can consistently count by 10's, 5's and 1's
2nd	-Student can rarely identify dimes and quarters and knows value -Is rarely able to count by 10's	-Student can sometimes identify dimes and quarters and knows value -Can sometimes count by 10's	-Student can typically identify dimes and quarters and knows value -Can typically count by 10's and	-Student can consistently identify dimes and quarters and knows value -Can consistently count by 10's

	and 25's	and 25's	25's	and 25's, above a dollar -Is beginning to make change
3rd	-Student can rarely identify pennies, nickels, dimes, and quarters, and knows value -Student is rarely able to count on coin amounts up to a dollar	-Student can sometimes identify pennies, nickels, dimes, and quarters, and knows value -Student can sometimes count on coin amounts up to a dollar	-Student can typically identify pennies, nickels, dimes, and quarters, and knows value -Student can typically count on coin amounts up to a dollar	-Student can consistently identify pennies, nickels, dimes, and quarters, and knows value -Student can consistently count on coin amounts more than a dollar -Student is able to make simple change

Geometry

1. Understands and applies attributes of shapes and patterns

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	-Student is rarely able to identify and describe basic first grade shapes	-Student can sometimes identify and describe basic first grade shapes	-Student can typically identify and describe basic first grade shapes	-Student can consistently identify and describe basic first grade shapes
3rd	-Student is rarely able to compare two-dimensional shapes.	-Student can sometimes compare two-dimensional shapes.	-Student can typically compare two-dimensional shapes.	-Student can consistently compare two-dimensional shapes.

2. Creates and identifies 2D and 3D shapes

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	Not assessed	Not assessed	Not assessed	Not assessed

3rd	-Student is rarely able to use defining attributes to identify and describe basic first grade shapes . - Student is rarely able to use two-dimensional shapes to make a composite shape and compose new shapes from the composite shape.	-Student can sometimes use defining attributes to identify and describe basic first grade shapes. - Student can sometimes use two-dimensional shapes to make a composite shape and compose new shapes from the composite shape.	-Student can typically use defining attributes to identify and describe basic first grade shapes . - Student can typically use two-dimensional shapes to make a composite shape and compose new shapes from the composite shape.	-Student can consistently use defining attributes to identify and describe basic first grade shapes . - Student can consistently use two-dimensional shapes to make a composite shape and compose new shapes from the composite shape.

3. Can partition and label fractional parts of a whole (½ and ¼)

Trimester	1	2	3	4
1st	Not assessed	Not assessed	Not assessed	Not assessed
2nd	Not assessed	Not assessed	Not assessed	Not assessed
3rd	-Student is rarely able to partition shapes into 2 or 4 equal parts -Can rarely label the parts appropriately	-Student can sometimes partition shapes into 2 or 4 equal parts -Can sometimes label the parts appropriately	-Student can typically partition shapes into 2 or 4 equal parts -Can typically label the parts appropriately	-Student can consistently partition shapes into 2, 4, or more, equal parts -Can label the parts appropriately