Mathematics					
Numbers and Operations	**Emerging (1)**	**Progressing (2)**	**Meets (3)**	**Exceeds (4)**	**Comments/Evidence**
Understands and uses place value in problem solving. **(M2N1 a,b)**	Can do none or one of the following: Represent numbers using a variety of models, diagrams, and number sentences. (e.g., 4703 represented as 4000+700+3, 47 hundreds +3, or 4,500+203). Understand the relative magnitude of numbers using 10 as a unit, 100 as a unit, or 1000 as a unit. Represent 2-digit numbers with drawings of tens and ones, and 3- digit numbers with drawings of hundreds, tens, and ones.	Can do two or more but not all of the following and begins to use in problem solving: Represent numbers using a variety of models, diagrams, and number sentences. (e.g., 4703 represented as 4000+700+3, 47 hundreds +3, or 4,500+203). Understand the relative magnitude of numbers using 10 as a unit, 100 as a unit, or 1000 as a unit. Represent 2-digit numbers with drawings of tens and ones, and 3- digit numbers with drawings of hundreds, tens, and ones.	Can consistently and independently do all of the following and use in problem solving: Represent numbers using a variety of models, diagrams, and number sentences. (e.g., 4703 represented as 4000+700+3, 47 hundreds +3, or 4,500+203). Understand the relative magnitude of numbers using 10 as a unit, 100 as a unit, or 1000 as a unit. Represent 2-digit numbers with drawings of tens and ones, and 3-digit numbers with drawings of hundreds, tens, and ones.	Consistently and independently does all of Meets, and can do the same with numbers beyond thousands.	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal
Connects symbols; interprets =, ≠, <,>, and uses boxes or blanks to represent a missing value.**(M2N5 a)**	Can do none or one of the following: use boxes or blanks to represent a missing value. Represent problem solving situations using =, ≠, <,>.	Can do two or more, but not all of the following: use boxes or blanks to represent a missing value. Represent problem solving situations using =, ≠, <,>.	Can consistently and independently do all of the following: use boxes or blanks to represent a missing value. Represent problem solving situations using =, ≠, <,>.	N/A	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal

Numbers and Operations	Emerging (1)	Progressing (2)	Meets (3)	Exceeds (4)	Comments/Evidence
Counts money and makes change **(M2N1 c)**	Can do none or one of the following: Use money as a medium of exchange. Make change and use decimal notation and the dollar and cent symbols to represent the collection of coins and currency.	Can do two or more but not all of the following: Use money as a medium of exchange. Make change and use decimal notation and the dollar and cent symbols to represent the collection of coins and currency.	Can consistently and independently do all of the following: Use money as a medium of exchange. Make change and use decimal notation and the dollar and cent symbols to represent the collection of coins and currency.	N/A	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal
Makes reasonable estimates and uses inverse relationships in problem solving. **(M2N2 b, e)**	Does none of the following: Understand and use the inverse relationship between addition and subtraction to solve problems and check solutions. Estimate to determine if solutions are reasonable for addition and subtraction. .	Does one of the following: Understand and use the inverse relationship between addition and subtraction to solve problems and check solutions. Estimate to determine if solutions are reasonable for addition and subtraction. .	Consistently and independently does both of the following: Understand and use the inverse relationship between addition and subtraction to solve problems and check solutions. Estimate to determine if solutions are reasonable for addition and subtraction. .	N/A	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal
Models, identifies, labels, and compares fractional parts **(M2N4 a,b)**	Can do none or one of the following: model, identify, and label and compare fractions (thirds, sixths, eighths and tenths) and fractional parts of sets. Recognize all fractional parts as a whole (ex. 4/4=1 whole)	Can do two or more, but not all of the following: model, identify, and label and compare fractions (thirds, sixths, eighths and tenths) and fractional parts of sets. Recognize all fractional parts as a whole (ex. 4/4=1 whole)	Consistently and independently does all of the following: model, identify, and label and compare fractions (thirds, sixths, eighths and tenths) and fractional parts of sets. Recognize all fractional parts as a whole (ex. 4/4=1 whole)	Consistently and independently does all of Meets, and can do the same with fractions beyond tenths.	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal

Numbers and Operations	Emerging (1)	Progressing (2)	Meets (3)	Exceeds (4)	Comments/Evidence
Solves three digit addition and subtraction problems **(M2N2a,c,d)**	Does none or one of the following: Correctly add and subtract two whole numbers up to three digits each with regrouping, use mental math strategies such as benchmark numbers to solve problems, use basic properties of addition to simplify problems.	Does two of the following: Correctly add and subtract two whole numbers up to three digits each with regrouping, use mental math strategies such as benchmark numbers to solve problems, use basic properties of addition to simplify problems.	Consistently and independently does all of the following: Correctly adds and subtracts two whole numbers up to three digits each with regrouping, uses mental math strategies such as benchmark numbers to solve problems, uses basic properties of addition to simplify problems.	Does all of Meets and can add 3 or more whole numbers of 4 or more digits each.	**NOTE:** Students do not need to memorize the properties of addition in second grade, they need to understand them through manipulation of number/objects. Students need to add and subtract using models such as number lines, hundred charts, manipulatives, base ten blocks, tens frames to perform the calculations and be able to represent these on paper. **Evidence:** GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal
Understands multiplication as repeated addition. Uses repeated addition, arrays, and counting by multiples to correctly multiply 1-digit numbers and construct the multiplication table. Uses the multiplication table (grid) to determine the product of two numbers. Uses repeated subtraction, equal sharing, and forming equal groups to divide large collections of objects and determine factors for multiplication. (M2N3)	Does none or one of the following: uses repeated addition, arrays, and skip counting to multiply one-digit numbers; Constructs multiplication table using the strategies above; Uses the multiplication grid to determine a product of two numbers; divides a large collection of objects correctly using repeated subtraction, equal sharing and forming equal groups and determines factors for multiplication	Does two or more, but not all of the following: uses repeated addition, arrays, and skip counting to multiply one-digit numbers; Constructs multiplication table using the strategies above; Uses the multiplication grid to determine a product of two numbers; divides a large collection of objects correctly using repeated subtraction, equal sharing and forming equal groups and determines factors for multiplication	Consistently and independently does all of the following: uses repeated addition, arrays, and skip counting to multiply one-digit numbers; Constructs multiplication table using the strategies above; Uses the multiplication grid to determine a product of two numbers; divides a large collection of objects correctly using repeated subtraction, equal sharing and forming equal groups and determines factors for multiplication	Does all of meets, and can explain multiplication and division of whole numbers to another.	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal

Geometry	Emerging (1)	Progressing (2)	Meets (3)	Exceeds (4)	Comments/Evidence
Describes and classifies plane geometric figures (2-dimensional) and their angles (M2G1)	Can do none or one of the following: describe and classify plane geometric figures, triangle, square, rectangle, trapezoid, quadrilateral, pentagon, hexagon and irregular polygonal shapes according to the number of edges, vertices and angles, and sizes of angles (right, obtuse, and acute)	Can do two or more, but not all of the following: describe and classify plane geometric figures, triangle, square, rectangle, trapezoid, quadrilateral, pentagon, hexagon and irregular polygonal shapes according to the number of edges, vertices and angles, and sizes of angles (right, obtuse, and acute)	Consistently and independently can do all of the following: describe and classify plane geometric figures, triangle, square, rectangle, trapezoid, quadrilateral, pentagon, hexagon and irregular polygonal shapes according to the number of edges, vertices and angles, and sizes of angles (right, obtuse, and acute)	Consistently and independently draws and classifies plane geometric figures including scalene, isosceles and equilateral triangles	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal
Describes and classifies solid geometric figures (3-dimensional) **(M2G2)**	Does none or one of the following: describe and classify solid geometric figures prisms, cylinders, cones and spheres according to the number of edges vertices and the number and shape of faces and angles, recognize the (plane) shapes of faces of a geometric solid and count the number of faces of each type. Recognize the shape of an angle as a right angle, an obtuse, or an acute angle.	Does two or more, but not all of the following: describe and classify solid geometric figures prisms, cylinders, cones and spheres according to the number of edges vertices and the number and shape of faces and angles, recognize the (plane) shapes of faces of a geometric solid and count the number of faces of each type. Recognize the shape of an angle as a right angle, an obtuse, or an acute angle.	Consistently and independently Does all of the following: describe and classify solid geometric figures prisms, cylinders, cones and spheres according to the number of edges vertices and the number and shape of faces and angles, recognize the (plane) shapes of faces of a geometric solid and count the number of faces of each type. Recognize the shape of an angle as a right angle, an obtuse, or an acute angle.	Consistently and independently draws and classifies solid geometric figures and identifies and explains their properties.	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal

Data Analysis and Probability	Emerging (1)	Progressing (2)	Meets (3)	Exceeds (4)	Comments/Evidence
Creates and interprets graphs. **(M2D1 a, b)**	Can do none or one of the following: create, organize and display data using pictographs, Venn diagrams, bar graphs, picture graphs, simple charts and tables to record results with scales of 1, 2, and 5. Know how to interpret picture graphs, Venn diagrams, and bar graphs.	Can do two or more, but not all of the following: create, organize and display data using pictographs, Venn diagrams, bar graphs, picture graphs, simple charts and tables to record results with scales of 1, 2, and 5. Know how to interpret picture graphs, Venn diagrams, and bar graphs.	Consistently and independently does all of the following: create, organize and display data using pictographs, Venn diagrams, bar graphs, picture graphs, simple charts and tables to record results with scales of 1, 2, and 5. Know how to interpret picture graphs, Venn diagrams, and bar graphs.	N/A	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal

Measurement	Emerging (1)	Progressing (2)	Meets (3)	Exceeds (4)	Comments/Evidence
Tells time**(M2M2)**	Can do none or one of the following: tell time to the nearest five minutes, know relationships of units of time such as number of seconds in a minute, minutes in an hour, and hours in a day.	Can do two or more, but not all of the following: tell time to the nearest five minutes, know relationships of units of time such as number of seconds in a minute, minutes in an hour, and hours in a day.	Consistently and independently does all of the following: tell time to the nearest five minutes, know relationships of units of time such as number of seconds in a minute, minutes in an hour, and hours in a day.	Does all of Meets, and can determine elapsed time.	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal
Estimates and measures length by determining appropriate unit and tool for measuring. **(M2M1 a,b, c)**	Does none or one of the following; knows standard units of inch, foot, yard, and metric units of cm and meter, and measures length to the nearest inch or cm. Compares the relationship of one unit to another by measuring objects twice using different units each time. Estimate lengths, and then measure to determine if estimations were reasonable. Determine an appropriate tool and unit for measuring.	Does two or more, but not all of the following; knows standard units of inch, foot, yard, and metric units of cm and meter, and measures length to the nearest inch or cm. Compares the relationship of one unit to another by measuring objects twice using different units each time. Estimate lengths, and then measure to determine if estimations were reasonable. Determine an appropriate tool and unit for measuring.	Consistently and independently does all of the following; knows standard units of inch, foot, yard, and metric units of cm and meter, and measures length to the nearest inch or cm. Compares the relationship of one unit to another by measuring objects twice using different units each time. Estimate lengths, and then measure to determine if estimations were reasonable. Determine an appropriate tool and unit for measuring.	Does all of Meets and consistently and independently measures to the nearest 1/4 inch, 1/2 inch and to the millimeter	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal
Estimates and measures temperature (Fahrenheit) **(M2M3)**	Does none of the following Determine a reasonable temperature for a given situation; read a thermometer.	Does one of the following Determine a reasonable temperature for a given situation; read a thermometer.	Consistently and independently does all of the following Determine a reasonable temperature for a given situation; read a thermometer. estimates and measures temperature (F) and determines reasonableness	Reads and makes reasonable estimates of temperature in Celsius and Fahrenheit.	GADOE tasks, teacher observation, teacher anecdotal records, unit assessment, Exemplars, VandeWalle tasks, math journal

Process Standards	Emerging (1)	Progressing (2)	Meets (3)	Exceeds (4)	Comments/Evidence
Uses mathematical language to express, connect ideas, record and solve problems**(M3P1, M3P2, M3P3, M3P4, M3P5)**	Minimal ability to solve problems in math and other content areas, evaluates mathematical argument, expresses ideas using precise mathematical language, understands how mathematical ideas connect and applies mathematical techniques in other areas, records mathematical ideas with pictures, words, models and symbols	Inconsistently solves problems in math and other content areas, evaluates mathematical argument, expresses ideas using precise mathematical language, understands how mathematical ideas connect and applies mathematical techniques in other areas, records mathematical ideas with pictures, words, models and symbols	Consistently and independently solves problems in math and other content areas, evaluates mathematical arguments, expresses ideas using precise mathematical language, understands how mathematical ideas connect and applies mathematical techniques in other areas, records mathematical ideas with pictures, words, models and symbols	Consistently and independently Solve problems (using appropriate technology). Reason and evaluate mathematical arguments. Communicate mathematically. Make connections among mathematical ideas and to other disciplines. Represent mathematics in multiple ways. **(PLEASE SEE GPS for elements linked to Process Standards)**	Chooses appropriate strategy to solve problems; Supports an argument for the way they solved a problem (Or how not to solve) ; Uses mathematical language; performance assessments; Summarizing activities; makes connections across content areas; Demonstrates understanding of how mathematical ideas interconnect; demonstrates understanding of mathematical processes with models and representations; Uses a process for problem solving