NUMBER SENSE (NS)	Standard	Core Concepts	Key terms	Examples
MA.2.NS.1	Count by ones, twos, fives, and tens up to 1000.	• The number 1,000 can be counted by 1's, 5's, 10's and 100's. • The number 1,000 can be read and written using base-ten numerals, number names, and expanded form.		Name the number ten more than 54. Name the number ten less than 85.
MA.2.NS.2	Identify the pattern of numbers in each group of ten, from tens through nineties.	• In a two-digit number, the tens digit tells how many groups of ten and the ones digit tells the number of given ones. • The numbers 21-99 are written by joining two number words that describe the number of tens and the number of ones. • Our number system is based on groups of ten. Whenever we get 10 in one place, we move the next greater place value.	• place value • hundreds place • tens place • ones place	

NUMBER SENSE (NS)	Standard	Core Concepts	Key terms	Examples
MA.2.NS.3	Identify numbers up to 999 in various combinations of hundreds, tens, and ones.	• Three digits of a three digit number represent amounts of hundreds, tens and ones • 100 can be thought of as a bundle of ten tens – called a "hundred". • The numbers 100, 200…900, refer to one, two…nine hundreds (and 0 tens and 0 ones)		
MA.2.NS.4	Name the number that is ten more or ten less than any number 10 through 999.	• Place value can be used to compare and order numbers. • Our number system is based on groups of ten. Whenever we get 10 in one place, we move the next greater place value. • Adding groups of tens is similar to adding numbers less than ten. • Subtracting tens is like subtracting ones. • Subtracting groups of tens is similar to subtracting numbers less than ten.		Find the odd numbers in this set: 44, 31, 100, 57, 28.

NUMBER SENSE (NS)	Standard	Core Concepts	Key terms	Examples
MA.2.NS.5	Compare whole numbers up to 100 and arrange them in numerical order.	• Place value can be used to compare and order numbers. • For some relationships, mathematical symbols (<, >, =) can be used to describe how one set of numbers is related to another set.	• whole numbers • ascending • descending • greater than • less than • equal to	Use <> = symbols to show a comparison of numbers.
MA.2.NS.6	Match the number names first, second, third, etc. with an ordered set of up to 100 items.	• There are specific ordinal words used to describe ordered objects.	• ordinal numbers	Identify the seventeenth (17^{th}) letter of the alphabet.
MA.2.NS.7	Identify odd and even numbers up to 100.	• Some numbers can be divided into two equal groups (even numbers) and some cannot (odd numbers). • Even numbers have a 0, 2, 4, 6, or 8 in the ones place. • Odd numbers have a 1, 3, 5, 7, or 9 in the ones place.	• odd • even	Find the odd numbers in this set: 31, 44, 57, 100

NUMBER SENSE (NS)	Standard	Core Concepts	Key terms	Examples
MA.2.NS.8	Recognize fractions as parts of a whole or parts of a group (up to 12 parts).	• Wholes can be broken into equal pieces. • Fractions can be written for shapes divided into equal pieces with a piece shaded in. • Fractions are written to describe how many parts out of a whole are shaded in. • The bottom number of a fraction is the total number of equal pieces. • The top number of a fraction is the number of pieces shaded in.	• fraction	Divide a cardboard rectangle into 8 equal pieces. Shade 5 pieces and write the fraction for the shaded part.
MA.2.NS.9	Recognize, name, and compare the unit fractions: ½, 1/3, ¼, 1/5, 1/6, 1/8, 1/10, and 1/12.	• The top number of a unit fraction is always 1. • The bigger the bottom number gets in a unit fraction, the small the piece of the whole.	• unit fraction	Which is larger, 1 3 or 1 6? Explain your answer.

NUMBER SENSE (NS)	Standard	Core Concepts	Key terms	Examples
MA.2.NS.10	Know that when all fractional parts are included the result is equal to the whole and to one.	• When all parts of a fraction are shaded, one whole is shaded. • When the top and bottom number of a fraction are the same, one whole is represented.	• one whole	What is another way of saying six sixths? Explain your answer
MA.2.NS.11	Read, write, and represent whole numbers using models, symbols, and words to 999.	• Our number system is a system for recording any number using digits 0-9, groups of ten and place value. • Numbers can be modeled with base ten blocks, pictures, number words, and numerals. • Base ten cubes represent 100. • There is a unique symbol that goes with each number. • There is a specific order to the set of whole numbers.		Read and write 654 as six hundred and fifty-four.

COMPUTATION (C)	Standard	Core Concepts	Key terms	Examples
MA.2.C.1	Model addition of numbers less than 100 with objects and pictures.	• All sums can be found using base ten block models.	• sum	Use blocks to find the sum of 26 and 15.
MA.2.C.2	Locate and place numbers on a number line up to 100.	• Number lines are used to place numbers in numerical order.	• number line	

MA.2.C.3	Add two whole numbers less than 100 with and without regrouping.	• When you add or subtract two-digit numbers, you add or subtract:
		  ○ Hundreds and hundreds
		  ○ Tens and tens
		  ○ Ones and ones
		• Numbers sometimes need to be composed or decomposed
		• There are a variety of ways to add multi-digit numbers.
		• For a given set of numbers, there are relationships that are always true properties. Properties are the rules that govern arithmetic (numbers can be added in any order).
			• addition
			• composed
			• decomposed
			• regrouping
			• subtraction
			• sum	

COMPUTATION (C)	Standard	Core Concepts	Key terms	Examples
MA.2.C.4	Subtract two whole numbers less than 100 with and without regrouping.	● When you add or subtract two-digit numbers, you add or subtract: o Hundreds and hundreds o Tens and tens o Ones and ones ● Numbers sometimes need to be composed or decomposed ● There are a variety of ways to subtract multi-digit numbers. ● For a given set of numbers, there are relationships that are always true properties. Properties are the rules that govern arithmetic (numbers must be subtracted in a specified order).	● difference ● regrouping ● subtraction	86 – 55 = ?.
MA.2.C.5	Understand and use the inverse relationship between addition and subtraction.	● The inverse relationship between addition and subtraction can be used to solve problems and check answers.	● inverse	Understand that 89 – 17 = 72 means that 72 + 17 = 89.

COMPUTATION (C)	Standard	Core Concepts	Key terms	Examples
MA.2.C.6	Use estimation to decide whether answers are reasonable in addition problems.	• Numbers can be rounded to the nearest ten to estimate addition and subtraction problems. • Estimated answers can be used to determine if answers are reasonable.	• estimate	Your friend says that 13 + 24 = 57. Without solving, explain why you think the answer is wrong.
MA.2.C.7	Use mental arithmetic to add or subtract 0, 1, 2, 3, 4, 5, or 10 with numbers less than 100.	• There are a variety of ways to add or subtract multi-digit numbers. • There are strategies for learning addition and subtraction facts within 20 that will help fluency. • Number relationships of 0-more or less than, 1-more or less than, and 2-more or less than are the basis for addition and subtraction facts with 0, 1, 2. • Addition facts involving 9 can be changed to an equivalent fact with 10, then subtract 1. • Addition facts involving 8 can be changed to an equivalent fact with 10, then subtract 2.		In a game, Mia and Noah are making addition problems. They make two two-digit numbers out of the four given numbers 1, 2, 3, and 4. Each number is used exactly once. The winner is the one who makes two numbers whose sum is the largest. Mia had 24 and 31; Noah had 21 and 43. Who won the game? How do you know? Show a way to beat both of them.

ALGEBRA AND FUNCTIONS (AF)	Standard	Core Concepts	Key terms	Examples
MA.2.AF.1	Relate problem situations to number sentences involving addition and subtraction.	• Addition and subtraction strategies can be used to solve word problems involving situations • When used appropriately the properties of operations and place value are strategies for adding and subtracting that work.	• number sentences	You have 13 pencils and your friend has 12 pencils. You want to know how many pencils you have altogether. Write a number sentence for this problem and use it to find the total number of pencils.

ALGEBRA AND FUNCTIONS (AF)	Standard	Core Concepts	Key terms	Examples
MA.2.AF.2	Use the commutative and associative rules for addition to simplify mental calculations and to check results.	• For a given set of numbers, there are relationships that are always true called properties. Properties are the rules that govern arithmetic. (Numbers can be added in any order, numbers must be subtracted in a specific order). • The associative property states that you can add numbers regardless of how they are grouped. • The commutative property states that you can change the order of the addends and get the same sum.	• associative property • commutative property	Add the numbers 5, 17, and 13 in this order. Now add them in the order 17, 13, and 5. Which was easier? Why?

ALGEBRA AND FUNCTIONS (AF)	Standard	Core Concepts	Key terms	Examples
MA.2.AF.3	Recognize and extend a linear pattern by its rules.	• Patterns can be made using addition or subtraction rules. • Repeatedly adding or subtracting the same number forms a numerical pattern.		One horse has 4 legs, two horses have 8 legs, and so on. Continue the pattern to find how many legs five horses have.
MA.2.AF.4	Create, describe, and extend number patterns using addition and subtraction.	• Patterns can be made using addition or subtraction rules. • Repeatedly adding or subtracting the same number forms a numerical pattern.	• number pattern	What is the next number: 23, 21, 19, 17, …? How did you find your answer?
MA.2.AF.5	Use equations with symbols for unknowns to solve addition word problems.	• Unknowns can be used in all positions when solving problems (i.e. the start, the addend or change, or the sum or difference might be unknown). • Addition and subtraction have an inverse relationship that can be used to solve problems and check answers		Add the numbers 5, 17, and 13 in this order. Now add them in the order 17, 13, and 5. Which was easier? Why?

ALGEBRA AND FUNCTIONS (AF)	Standard	Core Concepts	Key terms	Examples
MA.2.AF.6	Use equations with symbols for unknowns to solve subtraction word problems.	• Unknowns can be used in all positions when solving problems (i.e. the start, the addend or change, or the sum or difference might be unknown). • Addition and subtraction have an inverse relationship that can be used to solve problems and check answers		One horse has 4 legs, two horses have 8 legs, and so on. Continue the pattern to find how many legs five horses have.

GEOMETRY (G)	Standard	Core Concepts	Examples	Key terms
MA.2.G.1	Construct squares, rectangles, triangles, cubes and rectangular prisms with appropriate materials.	• Two- and three-dimensional objects with or without curved surfaces can be described, classified, and analyzed by their attributes. • Two- and three-dimensional objects can be found in a classroom/real-life setting.	• cube • rectangle • rectangular prism • square • triangle	Use blocks to make a rectangular prism.
MA.2.G.2	Describe, classify, and sort plane and solid geometric shapes (triangle, square, rectangle, cube, rectangular prism) according to the number and shape of faces, and the number of edges and vertices.	• A shape can be identified by the number of its sides, vertices, or angles. • Cubes are three-dimensional shapes (solid whose length, width, and height are all equal).	• edges • faces • vertices	How many vertices does a cube have?

GEOMETRY (G)	Standard	Core Concepts	Examples	Key terms
MA.2.G.3	Investigate and predict the result of putting together and taking apart two- and three-dimensional shapes.	• Two- and three dimensional shapes can be combined or broken apart to make other shapes.	• two-dimensional shape • three-dimensional shape	Use objects or a drawing program to find other shapes that can be made from a rectangle and a triangle. Use sketches or a drawing to show several ways that a rectangle can be divided into three triangles.
MA.2.G.4	Identify congruent two-dimensional shapes in any position.	• Even when turned or moved, congruent shapes remain the same.	• congruent	In a collection of rectangles, pick out those that are the same shape and size.

GEOMETRY (G)	Standard	Core Concepts	Examples	Key terms
MA.2.G.5	Recognize geometric shapes and structures in the environment and specify their locations.	• Objects in the real world are made up of geometric (two-dimensional and three-dimensional) shapes. • Shapes can be combined to make new shapes.	• geometric shapes	Look for combinations of shapes in buildings around you – geometric shapes scavenger hunt around the buildings.
MA.2.G.6	Recognize that basic shapes have lines of symmetry.	• A line of symmetry is used to create two identical pieces of a shape. • Shapes can have more than one line of symmetry.	• line of symmetry • half • mirror image • symmetry	Draw a line of symmetry in a square to divide the square in half from one corner to the other. Discuss how else we could divide the shape into mirror images.

MEASUREMENT (M)	Standard	Core Concepts	Key terms	Examples
MA.2.M.1	Measure and estimate length to the nearest inch, foot, yard, centimeter, and meter.	• Some attributes of objects are measurable and can be quantified using unit amounts. • The length of an object is measurable. • Rulers and yardsticks can be used to measure length.	• centimeter • estimate • length	Estimate and measure the length of the classroom to the nearest foot.
MA.2.M.2	Describe the relationships among inch, foot, and yard. Describe the relationship between centimeter and meter.	• 12 inches are equal to 1 foot. • 3 feet are equal to 1 yard. • 36 inches are equal to 1 yard. • 100 centimeters are equal to 1 meter.	• inch • foot • yard • centimeter • meter	How many inches are in a yard? How many feet are there in 36 inches?
MA.2.M.3	Decide which unit of length is most appropriate in a given situation.	• The length of any object can be used as a measurement unit for length (i.e. paperclip), but a standardized unit such as an inch or centimeter is always the same length. • Depending on the size of the object, one unit of measurement is more appropriate than another.		Would you use yards or inches to measure the length of your school books? Explain your answer.

MEASUREMENT (M)	Standard	Core Concepts	Key terms	Examples
MA.2.M.4	Estimate area and use a given object to measure the area of other objects.	• Area is the measurement of how many fixed squares are used to cover a surface.	• area	Make a class estimate of the number of sheets of notebook paper that would be needed to cover the classroom door. Then use the measurements to compute the area.
MA.2.M.5	Estimate and measure capacity using cups and pints.	• Cups and pints are used to measure liquid capacity. • There are 2 cups in 1 pint.	• capacity	Make a reasonable estimate of the number of pints a juice pitcher holds.
MA.2.M.6	Estimate weight and use a given object to measure the weight of other objects.	• When two sides of a balance are level, the two sides have the same weight. • The lower side of a balance is heavier than the lighter side.	• weight	About how many jellybeans will you need to put on one side of a balance scale to balance with a box of chalk? Count out the number of jellybeans that you guessed would be needed and see whether your estimate was close. Explain the results of your estimation.

MEASUREMENT (M)	Standard	Core Concepts	Key terms	Examples
MA.2.M.7	Recognize the need for a fixed unit of weight.	• The length of any object can be used as a measurement unit for length (i.e. paperclip), but a standardized unit such as an inch or centimeter is always the same length. • Measurement is the process of comparing a unit to the object being measured.		Estimate the number of paperclips needed to balance with a box of chalk. Will it be the same as the number of jellybeans? Explain your answer.
MA.2.M.8	Estimate temperature. Read a thermometer in Celsius and Fahrenheit.	• A thermometer is used to measure temperature. • When the temperature gets warmer, the line in a thermometer goes up; and when the temperature gets colder, the line in a thermometer goes down.	• temperature • thermometer	What do you think the temperature is today? Look at the thermometer to check.

MEASUREMENT (M)	Standard	Core Concepts	Key terms	Examples
MA.2.M.9	Using an analog clock, tell time to the nearest quarter hour, be able to tell five-minute intervals, and know the difference between a.m. and p.m.	• Time can be recorded on analog and digital clocks. • Time can be given to the nearest five minutes. • Time can be expressed using different units that are related to each other. • AM and PM designate different time periods.	• analog clock • digital clock • quarter-hour	When does your favorite TV program start?
MA.2.M.10	Know relationships of time: seconds in a minute, minutes in an hour, hours in a day, days in a week, and days, weeks, and months in a year.	• Time can be expressed using different units that are related to each other. • There are 60 seconds in a minute, 60 minutes in an hour, 24 hours in a day, 7 days in a week, 365 days in a year, 52 weeks in a year, and 12 months in a year.		How many days are in a year? How many minutes are in 2 hours

MEASUREMENT (M)	Standard	Core Concepts	Key terms	Examples
MA.2.M.11	Find the duration of intervals of time in hours.	• The amount of time that passes can be measured in hours.		Your trip began at 9:00 a.m. and ended at 3:00 p.m. How long were you traveling?
MA.2.M.12	Solve problems using coins.	• Money amounts can be counted in different ways. • The same amount of money can be represented using different combinations of coins. • The process for adding and subtracting money, written using cent notation, is the same as adding whole numbers.		

DATA ANALYSIS AND PROBABILITY (DP)	Standard	Core Concepts	Key terms	Examples
MA.2.DP.1	Collect and record numerical data in systematic ways.	• Some questions can be answered by collecting and analyzing data.	• table • tally chart • bar graph	Make a tally of your classmates' favorite colors and draw a bar graph. Name the color that is most popular and the color that is the favorite of the fewest people.
MA.2.DP.2	Represent, compare, and interpret data using tables, tally charts, and bar graphs.	• Data can be represented visually using line plots and graphs. • The type of data determines the best type of visual representation.		

DATA ANALYSIS AND PROBABILITY (DP)	Standard	Core Concepts	Key terms	Examples
MA.2.DP.3	Identify whether certain everyday events are likely or unlikely.			
MA.2.DP.4	Use experimental methods to determine probabilities about events whose outcomes involve random variation.			