This booklet is designed to be used by the homeschooling parent, tutor, or parent who wants to track their elementary math students' progress.

I intentionally present this information with each subject as the focus rather than grade levels. This is because all too often a student may be behind in only one area of basic math, which affects other areas. It is easier on the tutor to back track through a subjects sequence rather than grade by grade.

The other scenario is of course, the student who has completed what is expected at grade level and needs a further challenge.

Today, with the trend towards not having school books at home, it is difficult for parents to know what has been covered, and what should be approached next.

It is for this reason I created this, to allow you, the tutor, to have an easily accessible reference of the mathematical journey your student has travelled, and what is yet to come.

As you introduce a certain skill, record the date. Then, as you offer worksheets to practice the skill, keep a record of these. You will soon see your student achieve mastery of all the required Kindergarten through 6th grade skills.

Grade Level Expectations by Subject
www.K6Math.com

Grade	Patterns and Classifications	Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
K	Establish concepts of likeness and difference by sorting and classifying objects according to attributes: size, shape, color, amount, function.							
K	Define a set by the common property of its elements							
K	In a collection of objects that includes a given set and an item that does not belong, indicate which item does not belong							
K	Moving from concrete objects to pictorial representations, recognize patterns and predict the extension of a pattern							
K	Extend a sequence of ordered concrete objects							
1st	Establish concepts of likeness and difference by sorting and classifying objects according to attributes: size, shape, color, amount, function							
1st	Define a set by the common property of its elements							
1st	In a collection of objects that includes a given set and an item that does not belong, indicate which item does not belong							
1st	Recognize patterns and predict the extension of a pattern.							

	Geometry Skills	Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
K	Identify left and right hand side							
K	Identify top, bottom, middle							
K	Know and use terms of orientation and relative position such as: closed, open; on, under, over; between, in the middle of, next to, beside, inside, outside, around, far from, near to, above, below, to the right of, to the left of, here and there.							
K	Identify and sort basic plane figures: square, rectangle, triangle, circle							
K	Identify basic shapes in a variety of common objects and artifacts (windows, pictures, books, buildings, cars, et.)							
K	Recognize shapes as the same or different							
K	Make congruent shapes and designs							
K	Compare size of basic plane figures (larger or smaller)							
1ST	Identify left and right hand side							
1ST	Identify top, bottom, middle							
1ST	Know and use terms of orientation and relative position such as: closed, open; on, under, over; between, in the middle of, next to, beside, inside, outside, around, far from, near to, above, below, to the right of, to the left of, here and there.							
1ST	Identify and sort basic plane figures: square, rectangle, triangle, circle							
1ST	Identify basic solid figures: sphere, cube, cone							
1ST	Identify basic shapes in a variety of common objects and artifacts (balls, cans, windows, pictures, books, buildings, cars, et.)							
1ST	Make congruent shapes and designs							

	Geometry Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
2ND	Identify and draw basic plane figures: square, rectangle, triangle, circle							
2ND	Describe square, rectangle, triangle according to number of sides; distinguish between - square and rectangle as regards length of sides.							
2ND	Measure perimeter in inches of squares and rectangles							
2ND	Identify solid figures – sphere, cube, pyramid, cone, cylinder- and associate solid figures with planar shapes: sphere (circle), cube (square) pyramid (triangle)							
2ND	Make congruent shapes and designs							
2ND	Identify lines as horizontal; vertical, perpendicular, parallel							
2ND	Name lines and line segments (eg. Line AB Line segment CD)							
2ND	Identify a line of symmetry and create simple symmetric figures							
3RD	Identify lines as horizontal; horizontal, vertical, perpendicular, parallel							
3RD	Name lines and line segments (eg. Line AB Line segment CD)							
3RD	Polygons: recognize vertex (plural: vertices); identify sides as line segments (eg side CD); identify pentagon, hexagon and octagon (regular)							
3RD	Identify angles by letter names (eg ∟ABC); identify a right angle; know that there are four right angles in a square or rectangle.							
3RD	Compute area in square inches (in^2) and square centimeters (cm^2)							
3RD	Recognize and draw congruent figures; identify a line of symmetry, and create symmetric figures.							
3RD	Identify solid figures: sphere, cube, rectangular solid, pyramid, cone, cylinder.							

	Geometry Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
4TH	Plot points on a coordinate plane (grid) using ordered pairs of positive whole numbers							
4TH	Identify and draw points, segments, rays, lines							
4TH	Identify and draw lines: horizontal; vertical; perpendicular; parallel; intersecting							
4TH	Identify angles; identify angles as right, acute, or obtuse.							
4TH	Identify polygons – Triangle, quadrilateral, pentagon, hexagon and octagon (regular) Parallelogram, trapezoid, rectangle, square.							
4TH	Identify and draw diagonals of quadrilaterals.							
4TH	Circles: Identify radius (plural: radii) and diameter; radius = ½ diameter							
4TH	Recognize similar and congruent figures							
4TH	Know the formula for the area of a rectangle (Area = length x width) and solve problems involving finding area in a variety of square units (such as mi^2; yd^2; ft^2; in^2; km^2; m^2; cm^2; mm^2)							
4TH	Compute volume of rectangular prisms in cubic units (cm^3, in^3)							
5TH	Identify and draw points, segments, rays, lines							
5TH	Identify and draw lines: horizontal; vertical; perpendicular; parallel; intersecting							
5TH	Measure the degrees in angles, and know that right angle = 90' acute angle: less than 90' obtuse angle greater than 90' straight angle 180'							

Grade Level Expectations by Subject
www.K6Math.com

	Geometry Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
5TH	Identify and construct different kinds of triangles; equilateral, right and isosceles							
5TH	Know what it means to triangles to be congruent							
5TH	Identify polygons: triangle, quadrilateral, pentagon, hexagon and octagon, parallelogram, trapezoid, rhombus, rectangle, square							
5TH	Know that regular polygons have sides of equal length and angles of equal measure,							
5TH	Identify and draw diagonals of polygons							
5TH	Circles: Identify arc, chord, radius and diameter.							
5TH	Using a compass, draw circles with a given diameter or radius							
5TH	Area: review the formula for the area of a rectangle and solve problems involving finding area in a variety of square units							
5TH	Find the area of triangles, using the formula $A = \frac{1}{2}(b \; x \; h)$							
5TH	Find the area of an irregular figure (such as a trapezoid) by dividing into regular figures for which you know how to find the area.							
5TH	Compute volume of rectangular prisms in cubic units, using the formula $V = l \; x \; w \; x \; h$							
5TH	Find the surface area of a rectangular prism.							
6TH	Identify and measure the degrees in angles (review terms; right, acute, obtuse, straight)							
6TH	Bisect an angle							
6TH	Construct an angle congruent to a given angle							
6TH	Construct a figure congruent to a given figure, using reflection over a line of symmetry, and identify corresponding parts.							

Grade Level Expectations by Subject
www.K6Math.com

	Geometry Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
6TH	Show how congruent plane figures can be made to correspond through reflection, rotation and translation							
6TH	Triangles 　　Know that the sum of the measures of the angles of a triangle is 180'							
6TH	Construct different kinds of triangles							
6TH	Know terms by which we classify kinds of triangles – length of sides, equilateral, 　　isosceles, scalene – by angles, right, acute and obtuse							
6TH	Identify congruent angles and sides, and axes of symmetry, in parallelograms, 　　rhombuses, rectangles and squares							
6TH	Find the area (A) and perimeter (P) of plane figures or given the area or perimeter find the missing dimension, using formulas of rectangle (A = lw; P = 2(l+w), square, (A = s^2; P = 4s) triangle (A = ½ bh; P = s1 + s2 + s3) parallelogram (A = bh P = 2(b + s)							
6TH	Circles Identify arc, cord, radius, and diameter; know that radius = ½ diameter. Using a compass, draw circles with a given diameter or radius.							
6TH	Solve problems involving application of the formulas for finding the circumference of a circle: $C = 2\pi r \ or \ C = \ \pi d$ using 3.14 as the value of Pi							
6TH	Find the volume of a rectangular solids or given the volume find a missing dimension, using the formulas V = lwh or V = bh (in which b = area of base)							

	Algebra Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
1st	Write an addition or subtraction equation to solve basic one-step story and picture problems							
1st	Solve simple equations in the form of _____ - 2 = 7; 5 + _____ = 7							
2nd	Order and compare numbers to 1,000, using the signs <, > , =							
2nd	Solve basic word problems							
2nd	Write and solve simple equations in the form of _____ - 9 = 7; 7 + _____ = 16; 4 x _____ = 8							
3rd	Order and compare numbers to 999,999, using the signs < , > and =.							
3rd	Solve two-step word problems							
3rd	Solve equations in the form of ___ x 9 = 63; 81 ÷ _____ = 9							
3rd	Solve problems with more than one operations, as in (43 – 32) x (5 + 3) = ?							
3rd	Read and write expressions that use parentheses to indicate order of multiple operations							
4th	Solve two-step word problems							
4th	Solve equations in the form of _____ x 9 = 63; 81 ÷ ___ = 9							
4th	Solve problems with more than one operations, as in (72 ÷ 9) x(36 ÷ 4) = _____							
4th	Equality properties – know that equals added to equals are equal; equals multiplied by equals are equal.							
4th	Use letters to stand for any number, as in working with a formula eg area of rectangle: A = L x W							
5th	Exponents – Review perfect squares and square roots to 144, recognize the square root sign.							
5th	Using the terms squared and cubed and the the nth power, read and evaluate numerical expressions with exponents							
5th	Identify the powers of ten up to 10							
5th	Identify numbers under 100 as prime or composite							

Grade Level Expectations by Subject
www.K6Math.com

	Algebra Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
5th	Identify prime factors of numbers to 100 and write using exponential notation for multiple primes							
5th	Determine the greatest common factor (GCF) of given numbers							
5th	Determine the least common multiple (LCM) of given numbers							
5th	Solve word problems with multiple steps							
5th	Solve problems with more than one operation							
5th	Commutative, associative, distributive properties: know the names and understand the properties.							
5th	Solve word problems involving multiplication							
5th	Solve word problems with multiple steps							
5th	Solve problems with more than on operation							
5th	Recognize variables and solve basic equations using variables							
5th	Write and solve equations for word problems							
5th	Find the value of an expression given the replacement values for the variables, eg what is 7 – c if c = 3.5?							
6th	Exponents Review squares and square roots, using the terms squared and cubed and to the nth power, read and evaluate numerical expressions with exponents, review powers of ten, write numbers in expanded notations using exponents.							
6th	Solve word problems with multiple steps							
6th	Solve problems with more than one operation, according to order of operations (with and without a calculator)							
6th	Recognize uses of variables and solve linear equations in one variable							

Grade Level Expectations by Subject
www.K6Math.com

	Algebra Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
6th	Solve word problems by assigning variables to unknown quantities, writing appropriate equations, and solving them							
6th	Find the value for an expression, given replacement values for the variables, eg what is $7/x - y$ when x = 2 and y = 10?							
6th	Simplify expressions with variables by combining like terms							
6th	Understand the use of the distributive property in variable expressions such as $2x(2y + 3)$							
6th	Exponents Review squares and square roots, using the terms squared and cubed and to the nth power, read and evaluate numerical expressions with exponents, review powers of ten, write numbers in expanded notations using exponents.							
6th	Solve word problems with multiple steps							
6th	Solve problems with more than one operation, according to order of operations (with and without a calculator)							
6th	Recognize uses of variables and solve linear equations in one variable							
6th	Solve word problems by assigning variables to unknown quantities, writing appropriate equations, and solving them							
6th	Find the value for an expression, given replacement values for the variables, eg what is $7/x - y$ when x = 2 and y = 10?							
6th	Simplify expressions with variables by combining like terms							
6th	Understand the use of the distributive property in variable expressions such as $2x(2y + 3)$							

Grade Level Expectations by Subject
www.K6Math.com

	Data Analysis and Probability Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
2nd	Record numeric data systematically and find the lowest and highest values in a data set.							
3rd	Create and interpret bar graphs and line graphs							
3rd	Record outcomes for a simple event (eg tossing a die) and display the results graphically.							
4th	Create and interpret bar graphs and line graphs							
5th	Understand probability as a measure of the likelihood that an event will happen; using simple models, express probability of a given even as a fraction, as a percent, and as a decimal between 0 and 1							
5th	Collect and organize data in graphic form (bar, line and circle graphs)							
5th	Solve problems requiring interpretation and application of graphically displayed data							
5th	Find the average (mean) of a given set of numbers							
5th	Plot points on a coordinate plane, using ordered pairs of positive and negative whole numbers							
5th	Graph simple functions							
6th	Find the range and measures of central tendency (mean, median and mode) of a given set of numbers.							
6th	Understand the use of a sample to estimate a population parameter (such as the mean) and that larger samples provide more stable estimates.							
6th	Represent all possible outcomes of independent compound events in an organized way and determine the theoretical probability of each outcome.							
6th	Compute the probability of any one of a set of disjoint events as the sum of their individual probabilities.							
6th	Solve problems requiring interpretation and application of graphically displayed data.							
6th	Construct a histogram; a tree diagram.							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
K	Using concrete objects and pictorial representations compare sets: Same as (equal) more than, less than, most & least.							
K	Count forward from 1 to 31, first beginning with 1, and later from any given number; backward from 10, from 1 to 10 by twos, by fives and tens to 50.							
K	Write numbers 1 to 31							
K	Count and write number of objects in a set							
K	Given a number, identify one more, one less							
K	Identify ordinal positions first (1st) through sixth (6th)							
K	Identify pairs							
K	Interpret simple pictorial graphs							
K	Identify ½ as one of two equal parts of a region or object; find ½ of a set of concrete objects.							
K	Add and subtract to ten, using concrete objects							
K	Recognize the meaning of the plus (+) sign							
K	Subtraction: the concept of 'taking away" recognize the meaning of the minus (-) sign.							
1st	Write numbers 0 – 100							
1st	Count from 0 – 100 by ones; twos; fives; tens							
1st	Count by tens from a given single-digit numbers							
1st	Count forward and backwards							
1st	Use tallies							
1st	Identify ordinal position 1st to 10th							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
1st	Identify dozen; half dozen; pair							
1st	Recognize place value: ones, tens, hundreds							
1st	Identify more and less; counting how many more or less							
1st	Given a number, identify one more and one less; ten more and ten less.							
1st	Compare quantities using the signs <, >, =							
1st	Recognize fractions as part of a whole: 1/3							
1st	Create and interpret simple pictorial graphs and bar graphs.							
1st	Know the meaning of the plus (+) sign, know what a "sum" is,							
1st	know addition facts to 10 + 10;							
1st	Add in any order,							
1st	know what happens when you add zero,							
1st	know how to write addition problems horizontally and vertically,							
1st	know that when you add 3 numbers, you get the same sum regardless of grouping of addends.							
1st	Solve two digit addition problems with and without regrouping.							
1st	Understand subtraction as "taking away"							
1st	Know the meaning of the minus (-) sign							
1st	Know what a "difference" is							
1st	Know subtraction facts corresponding to addition facts							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
1st	Know how to write subtraction problems horizontally and vertically							
1st	Solve two digit subtraction problems with and without regrouping							
1st	Mentally subtract 10 from a two digit number.							
2nd	Write numbers to 1,000							
2nd	Read and write words for numbers from one to one-hundred							
2nd	Count: by twos, threes, fives and tens; by tens from any given number, by hundreds to 1,000; by fifties to 1,000 – forward and backward.							
2nd	Use a number line							
2nd	Use tallies							
2nd	Identify ordinal positions, 1st to 20th, and write words for ordinal numbers, first to twentieth							
2nd	Identify even and odd numbers							
2nd	Identify dozen, half-dozen; pair							
2nd	Recognize place value: ones, tens, hundred, thousands							
2nd	Write numbers up to hundreds in expanded form (eg. 64 = 60 + 4; 349 = 300 + 40 + 9)							
2nd	Given a number, identify one more and one less; ten more and ten less.							
2nd	Round to the nearest ten							
2nd	Create and interpret simple bar graphs							
2nd	Identify and extend numerical and symbolic patterns.							
2nd	Recognize these fractions as part of a whole set or region and write the corresponding numerical symbols – ½, 1/3, 1/5, 1/6, 1/8, 1/10							
2nd	Recognize fractions that are equal to 1							

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
2nd	Achieve timed mastery of addition facts							
2nd	Recognize what an addend is							
2nd	Know how to write addition problems horizontally and vertically							
2nd	Know how to add in any order and check a sum by changing the order of the addends							
2nd	Estimate the sum							
2nd	Solve two-digit and three-digit addition problems with and without regrouping.							
2nd	Find the sum (up to 999) of any two whole numbers							
2nd	Add three two-digit numbers							
2nd	Practice doubling (adding a number to itself)							
2nd	Understand the inverse relation between addition and subtraction; use addition to check subtractions							
2nd	Know addition and subtraction 'fact families'							
2nd	Achieve master of subtraction facts							
2nd	Estimate the difference							
2nd	Know how to write subtraction problems horizontally and vertically							
2nd	Solve two-digit and three digit subtraction problems with and without regrouping							
2nd	Given two whole numbers of 999 or less, find the difference							
2nd	Recognize the 'times' sign (x)							
2nd	Know what a 'factor' and 'product' mean							
2nd	Understand that you can multiply numbers in any order							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
2nd	Multiplication facts: Know the product of any single-digit number x1, 2, 3, 4, 5							
2nd	Know what happens when you multiply by 1, by 0 and by 10							
2nd	Practice simple word problems involving multiplication							
3rd	Read and write numbers (in digits and words) up to six digits.							
3rd	Recognize place value up to hundred thousands							
3rd	Count by twos, threes, fives, and tens, count by tens from any given number							
3rd	Write numbers in expanded form							
3rd	Use a number line							
3rd	Identify ordinal position 1st to 100th							
3rd	Review: even and odd numbers; dozen, half-dozen and pair							
3rd	Round to the nearest ten; to the nearest 100							
3rd	Identify perfect squares (and square roots) to 100, and recognize the square root sign √							
3rd	Identify Roman numerals from 1 to 20							
3rd	Understand what negative numbers are in relation to familiar uses (such as temperatures below zero)							
3rd	Locate positive and negative whole numbers on a number line							
3rd	Recognize fraction to 1/10 and fractions whose denominator 1s 100							
3rd	Identify numerator and denominator							
3rd	Write mixed numbers							
3rd	Recognize equivalent fraction (eg ½ = 3/6)							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
3rd	Compare fraction with like denominators using the signs <, > and =							
3rd	Know and write decimal equivalents to ¼ ½ and ¾							
3rd	Read and write decimals to the hundredths.							
3rd	Review and practice basic addition facts							
3rd	Mentally estimate a sum							
3rd	Use mental computation strategies							
3rd	Addition with and without regrouping; find the sum (up to 10,000) of any two whole numbers							
3rd	Understand addition and subtraction as inverse operations; use addition to check subtraction							
3rd	Review and practice basic subtraction facts							
3rd	Mentally estimate the difference							
3rd	Use mental computation strategies							
3rd	Subtraction with and without regrouping; given two whole numbers of 10,000 or less find the difference							
3rd	Master basic multiplication facts to 10 x 10							
3rd	Mentally multiply by 10, 100 and 1,000							
3rd	Multiply two whole numbers, with and without regrouping, in which one factor is 9 or less and the other is a multi-digit number up to three digits							
3rd	Write numbers in expanded form using multiplication eg (9,278 = (9x1,000) + (2 x 100) = (7 x 10) + 8.							
3rd	Estimate a product							
3rd	Solve word problems involving multiplication							
3rd	Understand multiplication and division as inverse operations							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
3rd	Know the meaning of dividend, divisor and quotient							
3rd	Know basic division facts to 100 ÷ 10							
3rd	Know that you cannot divide by 0							
3rd	Know that any number divided by 1 = that number							
3rd	Divide two and three-digit dividends by one-digit divisors							
3rd	Solve division problems with remainders							
4th	Read and write numbers (in digits and words) up to nine digits							
4th	Recognize place value up to hundred millions							
4th	Order and compare numbers to 999,999,999 using the signs < , > =							
4th	Write numbers in expanded form							
4th	Use a number line; locate positive and negative whole numbers on a number line							
4th	Round to the nearest ten, hundred and thousand							
4th	Identify perfect squares (and square roots) to 144; recognize the square root sign							
4th	Identify Roman numerals from 1 to 1000 and identify years as written in Roman Numerals							
4th	Know the meanings of multiple, factor, prime number and composite number							
4th	Recognize fractions to one-twelfth							
4th	Identify numerator and denominator							
4th	Write mixed numbers; change improper fractions to mixed numbers and vice versa							
4th	Recognize equivalent fractions (eg ½ = 2/4)							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
4th	Put fractions in lowest terms							
4th	Rename fractions with unlike denominators to fractions with common denominators							
4th	Compare fractions with like and unlike denominators using the signs <, >, =							
4th	Solve problems in the form of 2/3 = ½ x							
4th	Add and subtract fractions with like denominators							
4th	Express simple outcomes as fractions (eg 3 out of 4 as ¾)							
4th	Read and write decimals to the nearest thousandth							
4th	Read and write decimals as fractions (eg 0.39 = 39/100)							
4th	Write decimal equivalents for halves, quarters, eights and tenths							
4th	Compare fractions to decimals using the signs <, >, =							
4th	Write decimals in expanded form							
4th	Round decimals to the nearest tenth, to the nearest hundredth							
4th	Compare decimals, using the signs < , >, =							
4th	Read and write decimals on a number line							
4th	Add and subtract with decimal numbers to two places.							
4th	Review and reinforce basic multiplication facts to 10 x 10							
4th	Mentally multiply by 10, 100, 1000							
4th	Identify multiples of a given number, common multiples of two given numbers							
4th	Multiply by two-digit and three digit numbers							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
4th	Write numbers in expanded form using multiplication							
4th	Estimate a product							
4th	Use mental computation strategies for multiplication, such as breaking a problem into partial products eg 3 x 27 = (3 x 20) = (3 x 7) = 60 + 21 = 81							
4th	Check multiplication by changing the order of the factors							
4th	Multiply three factors in any given order							
4th	Solve word problems involving multiplication							
4th	Understand multiplication and division as inverse operations							
4th	Review the meaning of dividend, divisor and quotient							
4th	Review and reinforce basic division facts to 100 ÷ 10							
4th	Identify different ways of writing division problems: 28 ÷ 7; 7√28 ; 28/7							
4th	Identify factors of a given number, common factors of two given numbers							
4th	Review: you cannon divide by 0; any number divided by 1 = that number							
4th	Estimate the quotient							
4th	Divide dividends up to four-digits by one-digit and two-digit divisors							
4th	Solve division problems with remainders							
4th	Check division by multiplying and adding remainder							
5th	Read and write numbers (in digits and words) up to the billions							
5th	Recognize place value up to billions							
5th	Order and compare numbers to 999,999,999 using the signs < ,>, =							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
5th	Write numbers in expanded form							
5th	Integers – locate positive and negative integers on a number line, compare integers using the symbols <, >, =; know that the sum of an integer and its opposite is 0, Add and subtract positive and negative integers							
5th	Using a number line, locate positive and negative whole numbers							
5th	Round to the nearest ten, to the nearest hundred, to the nearest thousand, to the nearest hundred thousand							
5th	Determine and express simple rations.							
5th	Use ration to create a simple scale drawing							
5th	Ration and rate: solve problems on speed as a ration, using the formula S = D/T (or D = R x T)							
5th	Recognize the percent sign (%) and understand percent as "per hundred"							
5th	Express equivalencies between fractions, decimals, and percent's and know common equivalencies:1/10 = 10%, ¼ = 25%, ½ = 50% ¾ = 75%							
5th	Find given percent of a number							
5th	Determine the least common denominator (LCD) of fractions with unlike denominators							
5th	Recognize equivalent fractions							
5th	Put fractions in lowest terms Compare fractions with like and unlike denominators, using the signs <, >, =							
5th	Identify the reciprocal of a given fraction; know that the product of a given number and its reciprocal = 1							
5th	Add and subtract mixed numbers and fractions with like and unlike denominators							
5th	Multiply and divide fractions							
	Add and subtract fractions with like and unlike denominators							
	Add and subtract mixed numbers and fractions;							

Grade Level Expectations by Subject
www.K6Math.com

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
5th	Multiply mixed numbers and fractions							
5th	Round fractions to the nearest whole numbers							
5th	Write fractions as decimals							
5th	Read, write and order decimals to the nearest ten-thousandth							
5th	Write decimals in expanded form							
5th	Read and write decimals on a number line							
5th	Round decimals (and decimal quotients) to the nearest tenth; to the nearest hundredth, to the nearest thousandth							
5th	Estimate decimal sums, differences, and products by rounding							
5th	Multiply decimals by 10, 100 and 1000; by another decimal							
5th	Divide decimals by whole numbers and decimals							
5th	Multiply two factors of up to four digits each							
5th	Write numbers in expanded form using multiplication							
5th	Estimate a product							
5th	Use mental computation strategies for multiplication, such as breaking a problem into partial products e.g. (3 x 27 = (3 x 20) + (3 x 7) = 60 + 21 = 81							
5th	Understand multiplication and division as inverse operations							
5th	Know what it means for one number to be "divisible" by another number							
5th	Know that you cannot divide by 0; that any number divided by 1 = that number							
5th	Estimate the quotient							
5th	Know how to move the decimal point when dividing by 10, 100 or 1000							

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
5th	Divide dividends up to four digits by one-digit, two-digit, and three-digit divisors							
5th	Solve division problems with remainders; round a repeating decimal quotient							
5th	Check division by multiplying (and adding remainder)							
6th	Read and write numbers (in digits and words) up to the trillions							
6th	Recognize place value up to hundred-billions							
6th	Integers (review)							
6th	Locate positive and negative integers on a number line							
6th	Compare integers using <, >, =							
6th	Know that the sum of an integer and its opposite is 0							
6th	Add and subtract positive and negative integers							
6th	Determine whether a number is a prime number or composite number							
6th	Round to the nearest ten, nearest hundred, nearest thousand, nearest hundred thousand, nearest million							
6th	Compare and order whole numbers, mixed numbers, fractions and decimals using the symbols <, >, =							
6th	Determine the greatest common factor (GCF) of given numbers							
6th	Determine the least common multiple (LCM) of given numbers							
6th	Solve proportions including word problems involving proportions with one unknown							
6th	Use ratios and proportions to interpret map scales and scale drawings							
6th	Set up and solve proportions from similar triangles							

	Numbers and Operations Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
6th	Understand the justification for solving proportions by cross-multiplication							
6th	Convert between fractions, decimals and percent's							
6th	Find the given percent of a number, and find what percent a given number is of another number							
6th	Solve problems involving percent increase and decrease							
6th	Find an unknown number when a percent of the number is known							
6th	Use expressions with percent's greater that 100% and less and 1%							
6th	Addition, commutative and associative properties: know the names and understand the properties							
6th	Understand addition and subtraction as inverse operations							
6th	Add and subtract with integers, fractions and decimals, both positive and negative							
6th	Commutative, associative, and distributive properties: know the names and understand the properties.							
6th	Multiply multi-digit factors, with and without a calculator							
6th	Estimate a product							
6th	Multiply with integers, fractions and decimals both positive and negative							
6th	Distributive property for multiplication over addition or subtractions, that is A x (B +C) or A x (B + C)							
6th	Understand multiplication and division as inverse operations							
6th	Estimate the quotient							
6th	Divide multi-digit dividends by up to three-digit divisors, with and without a calculator							

Grade Level Expectations by Subject
www.K6Math.com

	Measurement Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
K	Money Identify pennies, nickels, dimes and quarters							
K	Identify the one dollar bill							
K	Identify the dollar sign ($) and the cents sign (¢)							
K	Write money amounts using the cents sign (¢)							
K	Identify familiar instruments of measurement, such as ruler, scale, thermometer							
K	Compare objects according to : Linear measure – long short; longer than shorter than; big bigger biggest etc.							
K	Measure length using non-standard units							
K	Begin to measure length in inches							
K	Height: taller than, shorter than							
K	Weight: heavy, light – heavier than, lighter than							
K	Capacity (volume) full and empty, less full than, as full as, fuller than							
K	Temperature: hotter and colder							
K	Time – sequence events: before and after, first, next last							
K	Compare duration of events: which takes more or less time							
K	Read a clock face and tell time to the hour							
K	Know the days of the week and the months of the year							
K	Orientation in time: today, yesterday, tomorrow; morning, afternoon; this morning vs. yesterday morning etc.							
1st	Identify familiar instruments of measurement, such as ruler, scale, thermometer							
1st	Compare objects according to linear measure							

Grade Level Expectations by Subject
www.K6Math.com

	Measurement Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
1st	Measure length using non-standard units							
1st	Measure length in inches and feet, and in centimeters							
1st	Weight – Compare weights of objects using a balance scale							
1st	Measure weight in non-standard units and in pounds							
1st	Capacity (volume) – Estimate and measure capacity in cups. Identify quart, gallon							
1st	Temperature: associate temperature in degrees Fahrenheit with weather							
1st	Time: Sequence events: before and after; first, next last. Compare duration of events, which takes more or less time							
1st	Read a clock face and tell time to the half-hour							
1st	Know the days of the week and the months of the year, both in order and out of sequence							
1st	Orientation in time: today, yesterday, tomorrow, morning, afternoon, evening, night, this morning vs yesterday morning etc.							
2nd	Linear Measure Make linear measurement in feet and inches, and in centimeters							
2nd	Know that one foot = 12 inches							
2nd	Know abbreviations: ft., in.							
2nd	Measure and draw line segments in inches to ½ inch, and in centimeters							
2nd	Estimate linear measurements, then measure to check estimate							
2nd	Weight Compare weights of objects using a balance scale							
2nd	Estimate and measure weight in pounds, and know abbreviation: lb.							
2nd	Capacity (volume) Estimate and measure capacity ni cups							
2nd	Measure liquid volumes: cups, pints, quarts, gallons							

Grade Level Expectations by Subject
www.K6Math.com

		Measurement Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
2nd		Compare U.S. and metric liquid volumes: quart and liter (one liter is a little more than one quart)							
2nd		Temperature Measure and record temperature in degrees Fahrenheit to the nearest 2 degrees.							
2nd		Know the degree sign " ∘ "							
2nd		Time Read a clock face and tell time to five-minute intervals							
2nd		Know how to distinguish time as A.M and P.M							
2nd		Understand noon and midnight							
2nd		Solve problems on elapsed time (how much time has passed)							
2nd		Using a calendar, identify the date, day of the week, month and year							
2nd		Write the date using words and numbers.							
3rd		Linear Make linear measurements in yards, feet and inches and in centimeters and meters.							
3rd		Know that one foot = 12 inches; one yard = 36 inches; 3 feet = 1 yard; 1 meter = 100 centimeters; 1 meter is a little more than one yard							
3rd		Measure and draw line segments in inches (to ¼ inch) and in centimeters.							
3rd		Estimate linear measurements, then measure to check estimates.							
3rd		Weight Compare weights of objects using a balance scale.							
3rd		Estimate and measure weight in pounds and ounces; grams and kilograms							
3rd		Know abbreviations: lb., oz., g., Kg.							
3rd		Capacity (volume) Estimate and measure liquid capacity in cups, pints, quarts, gallons and liters							
3rd		Know that 1 quart = 2 pints; 1 gallon = 4 quarts							

Grade Level Expectations by Subject
www.K6Math.com

	Measurement Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
3rd	Compare U.S. and metric liquid volumes; quart and liter (one liter is a little more than one quart)							
3rd	Temperature Measure and record temperature in degrees Fahrenheit and Celsius							
3rd	Know the degree sign Identify freezing point of water as 32'F = 0'C							
3rd	Time Read a clock face and tell time to the minute as either A.M. or P.M. tell time in terms of both "minutes before" and "minutes after" the hour.							
3rd	Solve problems on elapsed time (how much time has passed?)							
3rd	Using a calendar, identify the date, day of the week, month and year							
3rd	Write the date using words (for name of month) and numbers, and only numbers.							
4th	Linear Estimate and make linear measurements in yard, feet and inches (to 1/8th inch) and in meters, centimeters and millimeters							
4th	Weight Estimate and measure weight in pounds and ounces; grams and kilograms							
4th	Capacity (volume) Estimate and measure liquid capacity in teaspoons, tablespoons, cups, pints, quarts, gallons and in milliliters and liters.							
4th	Know the following equivalences among US customary units of measurement and solve problems involving changing units of measurement 	Linear	Capacity	Linear	Capacity
---	---	---	---
1 ft = 12 in	1 cup = 8fl oz	1 cm = 10mm	1 cl = 10 ml
1 yd = 3 ft = 36 in	1 pt = 2 c	1m = 100 cm = 1,000mm	1 liter = 1,000 ml
1mi. = 5,280 ft	1 qt = 2 pt	1km = 1,000m	1 liter = 100 cl
1 mi = 1,760 yd	1 gal = 4 qts	Mass	
Weight		1 cg = 10 mg	
1 lb = 16 oz		1g = 100 cg = 1,000mg	
1 ton = 2,000 lbs		1 kg = 1,000g									
4th	Time Solve problems on elapsed time							

Grade Level Expectations by Subject
www.K6Math.com

	Measurement Skills	Date Concept Introduced	Concept revisited	W/S	W/S	W/S	W/S	W/S
5th	Convert to common units in problems involving addition and subtraction of different units							
5th	Solve problems on elapsed time; regroup when multiplying and dividing amounts of time.							
6th	Solve problems requiring conversion of units within the US customary system and within the metric system							

6th	Associate prefixes used in metric system with quantities
	   Kilo = thousand
	   Hecto = hundred
	   Deka = ten
	   Deci = tenth
	   Centi = hundredth
	   Mili = thousandth							

6th	Solve problems on elapsed time; express parts of an hour in fraction or decimal form.							

Grade Level Expectations by Subject
www.K6Math.com