Grade 4 Math Planner

	Number	Space	Measurement, Chance and Data	Structure	Working Mathematically
1st Quarter	• use of place value (as an idea of "ten of these is one of those") to determine de size and order of whole numbers to 100,000 • determine size and order of numbers to 100,000 • skip count forwards and backwards, from various starting points using multiples of 2, 3, 4, 5, 10, 20, 50, and 100 • estimate the results of computations and recognize whether these are likely to be over-estimated or under-estimated	• knowledge of the names of polygons using Greek prefixes; for example, pentagon and hexagon • recognition and description of different polygons • representation of an object by drawing its plan	• comparison of the likelihood of everyday events and linking events with statements about how likely are they to occur	• use distributive property in calculations; for example, 6 x 37 = 6 x 30 + 6 x 7 • construction of lists, Venn diagrams and grids for recording combinations of two attributes	• Identification of mathematical vocabulary for each operation: _____ _____ _____ _____ _____ • rephrasing of a problem or representing it using a physical model, diagram, list or table as a problem solving strategy • selection of multiplication and division as more efficient processes than repeated addition and subtraction • applications of number skills to solve routine and mental math problems from everyday contexts • partitioning of a task into smaller sub-tasks

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2nd Quarter	• use of written number sentences such as 20 ÷ 5 = 4 to summarize sharing (partition) and "how many" processes • use of fractions with numerators other than one; for example, ¾ of a block of chocolate • round numbers up and down to the nearest unit, ten, hundred, or thousand • develop fraction notation and compare simple common fractions such as ½ < ¾ using physical models	• recognize and describe the directions of lines as vertical, horizontal or diagonal	• comparison of the likelihood of everyday events and linking events with statements about how likely are they to occur • describe the fairness of events in qualitative terms • recognize different types of data: - non-numerical - separate numbers - continuous numbers	• use distributive property in calculations; for example, 6 x 37 = 6 x 30 + 6 x 7 • use number properties in combination to facilitate computations (for example 7 + 10 + 13 = 7 + 13 + 10 = 20 + 10 = 30) • construction of lists, Venn diagrams and grids for recording combinations of two attributes • recognize that the sharing of a collection into equal sized parts (division) frequently leaves a remainder	• Identification of mathematical vocabulary for the quarter: _____ _____ _____ _____ _____ • Use of familiar problems to focus on strategies to help in solving an unfamiliar problem. • Location of data sources, including use of the world wide web • Collection of mathematical data using technology; for example, using data logging

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3rd Quarter	• (mentally) compute with numbers up to 20 using all four operations • provide automatic recall of multiplication facts up to 12 x 12 • representation of multiplication as a rectangular array • use algorithms for the addition and subtraction of numbers to two decimal places • use of place value to determine de size and order of decimals numbers up to hundredths	• Use of a graphical scale to determine actual size and distance from a map • Construction or selection of possible objects given a plan (bird's eye view) or an elevation (side view) • Representation of relationships within a family (people or animals) through use of a tree diagram (network) • Interpretation of maps of their own immediate environment using various scales; for example, school ground, suburb, state, country	• calculation of area through multiplication of the length of a rectangle by its width • estimation of angle in terms of quarter turns and half turns	• use distributive property in calculations; for example, 6 x 37 = 6 x 30 + 6 x 7 • construction of lists, Venn diagrams and grids for recording combinations of two attributes • understand the meaning of "=" in mathematical statements	• Identification of mathematical vocabulary for the quarter: _____ _____ _____ _____ _____ • Use of familiar problems to focus on strategies to help in solving an unfamiliar problem. • Location of data sources, including use of the world wide web • Collection of mathematical data using technology; for example, using data logging

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4th Quarter	• devise and use written methods for: - whole number problems of addition and subtraction involving numbers up to 1000 - multiplication by single digit (using recall of multiplication tables) and multiples of ten (for example, 5 x 100, 5 x 70) - division by a two-digit divisor - addition and subtraction of numbers to two decimal places, including situations involving money	• recognize angles as the result of rotation of lines with a common end-point • recognize and name common three-dimensional shapes such as spheres, prisms and pyramids • produce simple tessellations (for example, using triangles, rectangles and hexagons) and puzzles such as tangrams • Locate and identify points on a map and a diagram	• estimate measurements of length, area, volume, mass and time, and discuss the use of appropriate measuring tools • use of column and bar graphs to display the results of an experiment (for example, the frequencies of possible categories)	• investigate sequences of decimal numbers generated using multiplication and division by 10	• Identification of mathematical vocabulary for each operation: _____ _____ _____ _____ _____ • Use of familiar problems to focus on strategies to help in solving an unfamiliar problem. • Appreciation of the history of mathematics in development of geometry and number concepts