Richard Avenue Primary School
KS 2 **SUMMER** Maths Overview

Year Group	Weeks												
	1	2	3	4	5	6	7	8	9	10	11	13	13
3	**Money** ~ Exchange between £ and pence ~ Solve problems involving combinations of coins and notes ~ Add/subt. amounts of money, giving change, recording £ and p separately		**Mass** ~ vocab. of mass ~ measure/compare using g/kg ~ add/subt. using g/kg ~ Record measures using mixed units ~ Solve related problems	**Volume and Capacity** ~ vocab. of vol./ capacity ~ measure/compare using ml/l ~ add/subt. using ml/l ~ Record measurements using mixed units ~ Solve related Problems	**Data** ~ vocabulary of data ~ Pictograms/ Bar Charts ● understand/use simple scales (2,5,10) ● Interpret/present data (scale = 1) ● Interpret / present data (scale 2,5,10) ● Interpret simple tables. Solve 1 step/2 step problems	**Fractions** ~ vocabulary of fractions ~ understand a fraction as an equal part of a whole ~ recognise/find/write fractions of a set of objects ● Unit fractions ● Non-unitary fractions ~ Find unit fractions of whole numbers. ~ Count up and down in tenths ~ Understand that tenths arise when ● Object is cut into 10 equal pieces ● Dividing number quantities by 10 ~ Recognise/ show equivalent fractions with small denominators ~ Connect tenths to measure / place value +/- fractions with same denominator within a whole. ~ compare / order fractions where numerator equal to 1 or all have same denominator. ~Order fractions on a number line ● Unit fractions ● Non-unitary ~ Solve related problems			**Addition/ Subtraction** ~ vocabulary of addition / subtraction ~ add 2 / 3 digit numbers using ● extended written method ● formal written method ~ subtract 2 / 3 digit numbers using ~ Solve problems ● missing numbers ● using place value/ more complex addition/subtraction ~ estimate using rounding / inverse operation	**Multiplication and Division** ~ multiply a 2digit number by single digit no. using an extended written method. ~ multiply a 3digit number by single digit no. using an extended written method. ~ Multiply 2 and 3 digit numbers with products less than 1000 using a formal written method ~ Solve related problems including missing numbers. Divide a 2 digit no. by known tables facts using extended written method (e.g. no. line / chunking) Divide a 2 digit no. by known tables facts using a formal method ~ solve related problems	**Assessment Week and Summer Term Activities**		
4	**Length and Perimeter** ~ vocab. of length and perimeter. ~ convert between different measures e.g. mm/cm, cm/m, m/km applying knowledge of x / ÷ by 10,100 and 1000 ~ Solve related problems ~ measure the perimeter of rectilinear figures including squares in cm. m ~ calculate the perimeter of rectilinear figures including squares, using fact length + width x 2 = perimeter ~ know that perimeter can be expressed algebraically as 2 (a +b) where a = length and b = width			**Angle and Shape** ~ vocabulary of angle and shape ~ Identify acute / obtuse angles and compare ~ Order angles up to two right angles by size ~ Measure angles using a protractor ~ Compare and classify shapes including quadrilaterals / triangles (equilateral, etc..) using different types of sorting diagram ~Compare lengths / angles to identify regular/irregular shapes ~ identify lines of symmetry on shapes in different orientations ~ complete a simple symmetrical figure with respect to specific lines of symmetry ~ draw symmetrical patterns using a variety of media ~ recognise lines of symmetry in a variety of shapes ~ Recognise 3-d shapes using the correct language. ~ Make and classify 3-d shapes, including by the 2-d shapes that form their surface.		**Geometry** ~ vocab. of geometry ~ Describe position on a 2-d grid as co-ordinates in first quadrant ~ Draw a pair of axes in one quadrant with equal scale and integer labels. Read, write and use pairs of co-ordinates to plot points ~ Plot specified points and draw sides to complete a given polygon ~ Describe movement between positions as translations of a given unit to left/right, up/down		**Data** ~ vocab. of data ~ interpret discrete / continuous data using bar charts and time graphs ~ present discrete / continuous data using bar charts and time graphs ~ understand/use a range of scales ~ Sole comparison/sum/difference problems by interpreting graphical representations. ~ Solve problems by interpreting tables				
5	**Percentages** ~ vocab. of percentages ~ Understand that %/ decimals/fractions are different ways of expressing proportions of the whole ~ Recognise % symbol, understand that per cent relates to number of parts per hundred and write % as a fraction with the denominator hundred, and as a decimal ~ Know % and decimal equivalents (1/2, ¼, 1/5, 2/5, 4/5 and tenths ~ Solve related problems		**Angle/Shape/Position and Direction** ~ vocab. of angle, shape, position and direction ~ know that angles are measured in degrees ~ Estimate/ compare acute, obtuse and reflex angles ~ Draw / measure angles using a protractor ~ Know angles at a point on a whole turn equal 360°, on straight line 180° other multiples of 90° ~ use properties of rectangles to deduce related facts and find missing angles/lengths ~ Use conventional markings for parallel lines and right angles ~Understand / identify/draw diagonals ~ Identify 3-d shapes including cubes / cuboids from 2-d representations. ~ make / classify 3-d shapes, including identifying all of the 2-d shapes that form their surfaces ~ Use co-ordinates in the first quadrant ~ Identify co-ordinates needed to complete a polygon ~ Identify/describe/ represent the position of a shape following a reflection/translation using appropriate language and know the shape has not changed. ~ recognise/use reflection/ translation in a variety of diagrams, including examples involving co-ordinates (reflections need to be parallel to the axes).			**Measures** **Time** ~ vocab. of time ~ increased fluency in telling the time ~ Increased fluency writing the time ~ Develop understanding of analogue and digital time ~ Convert units of time seconds/minutes, minutes/hours, hours/days, days/weeks, months/years. ~ Know length/name of months ~ Solve related problems **Mass, Volume, Capacity** ~ vocabulary of mass, volume and capacity ~ convert between different units of metric measure ~ Understand/use approximate equivalences between metric units and common imperial measures ~ estimate measure, choosing appropriate units ~ Problem Solving using four operations, decimal notation and scaling **Length** ~ vocab. of length ~ Draw/measure lines accurately to nearest mm. ~ Convert m/km, m/cm, cm/mm ~ Estimate/compare measures ~ Understand/use approximate equivalences between metric units and common imperial measures ~ Problem Solving using four operations, decimal notation and scaling Perimeter / Area ~ vocab of perimeter and area ~ Understand the difference between perimeter and area. ~ Measure/calculate the perimeter of composite rectilinear shapes in cm/m ~ Calculate the perimeter of rectangles and related composite shapes using formula l + w x2 = perimeter. ~ Use formula to find missing lengths ~ Estimate area of irregular shapes ~ Calculate and compare the area of rectangles using standard units ~ Calculate the area from scale drawings using given measurements					
6	**Angle and Shape** ~ vocab. of shape ~ draw 2d shape of given dimensions and angles using appropriate measuring tools/ conventional markings and labels for lines and angles ~ Compare/classify geometric shapes based upon properties ~ Find unknown angles in any triangle, quadrilateral and regular polygons ~ Recognise angles that meet at a point (straight line, vertically opposite,) and calculate missing angles. ~ Express relationships between angles algebraically ~ Name/identify parts of a circle Express the relationship between the radius and diameter algebraically.		**Position and Scale** ~ vocab. of position and scale ~ Describe position in all four quadrants ~ draw / label rectangles specified by coordinates, identify missing coordinates ~ Draw/translate simple shapes/ reflect in the axes ~ Solve problems involving similar shapes where the scale factor is known or can be found ~ Consolidate understanding of ratio when comparing quantities, sizes and scale drawing by solving a variety of problems. ~ Compare lengths / angles to identify regular/irregular shapes	**Post SATS Mathematics**									