St Peter's Church of England Primary School

Primary National Framework 2014:
MATHEMATICS
PROGRAMMES OF STUDY: MATTERS, SKILLS AND PROCESSES
YEAR 4

NUMBER				MEASUREMENT	GEOMETRY	STATISTICS
Number and place Value	**Addition and Subtraction**	**Multiplication and Division**	**Fractions**		**Properties of shape**	
Count backwards through zero to include negative numbers. Count in multiples of 6,7, 9, 25 and 1000. Find 1000 more of less than a given number Order and compare numbers beyond 1000 (10,000 & 100,000) Compare numbers with the same number of decimal places up to two decimal places. Identify, represent and estimate numbers using different representations. Read Roman numerals to 100 (1-C) and know that over time, the numeral system changed to include the concept of zero and place value. Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones). Round any number to the nearest 10, 100 or 1000. Round decimals with one decimal place to the nearest whole number. Solve number and practical problems that involve all the above with increasingly larger positive numbers	Add and subtract numbers with up to 4 digits using formal and written methods of columnar addition and subtraction where appropriate. (including length, mass and capacity) Estimate and use inverse operations to check answers to a calculation. Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. **Algebra** Perimeter can be expressed algebraically as $2(a + b)$ where a and b are the dimensions in the same unit.	Count in multiples of 6, 7, 9, 25, and 1000. Recall multiplication and division facts for multiplication tables up to 12x12. Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1. Multiplying together three numbers. Recognise and use factor pairs and commutatively in mental calculations Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout. Estimate and use inverse operations to check answers to a calculation. Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1-digit. Integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	Count up and down in hundredths. Recognise that hundredths arise when dividing an object bu one hundred and dividing tenths by tenths. Compare numbers with the same number of decimal places up to two decimal places. Recognise and show, using diagrams, families of common equivalent fractions. Recognise and write decimal equivalents of any number of tenths or hundredths. Recognise and write decimal equivalents to ¼ , ¾, ½ Add and subtract fractions with the same denominator. Find the effect of dividing a one or two digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. Solve problems involving increasingly harder fractions to calculate quantities, e.g. ¼ of 24 ½ of χ and fractions to divide quantities, including non-unit fractions where the answer is a whole number. Solve simple measure and money problems involving fractions and decimals to two decimal places.	Estimate, compare and calculate different measures, including money in pounds and pence Estimate, compare and calculate different measures, including money in pounds and pence. Measure and calculate perimeter of a rectilinear figure (including squares) in centimetres and metres. Find the area of rectilinear shapes by counting squares (rectilinear – shapes whose sides all meet at a right angle). Read, write and convert time between analogue and digital 12 and 24-hour clock. Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. Convert between different units of measure (e.g. km to m; hr to min) Read, write and convert time between analogue and digital 12 and 24-hour clocks. Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	Identify lines of symmetry in 2-D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry. Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify acute and obtuse angles and compare and order angles up to two right angles by size. **Position, Direction and Movements** Describe positions on a 2-D grid as coordinates in the first quadrant. Describe movements between positions as translations of a given unit to the left/ right and up/ down plot specified points and draw sides to complete a given polygon.	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.