

# Holy Trinity and S.Silas Maths Curriculum Overview Year 5

## Number: Number and Place Value

Counting		Understanding place value	Reading and Writing numbers		Rounding	Problem solving
Interpret negative numbers  In context, count forwards and backwards with positive and negative whole numbers, including through 0	Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000	Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit  Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	Read, write, order and compare to at least 1,000,000 and determine the value of each digit	Read Roman numerals to 1000 (M) and recognise years written in to Roman numerals  Write dates in Roman numerals	Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000	Solve number problems and practical problems that involve all of the above

## Number: Addition and Subtraction

Mental Calculation	Written Calculation	Inverse, estimating and checking answers	Problem solving
Add and subtract numbers mentally with increasingly large numbers	Add and subtract whole numbers with 4 or 5 digits, including using formal written methods (column addition and subtraction)	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

## Number: Multiplication and Division

Mental Calculation		Written Calculation		Properties of numbers			
Multiply and divide numbers mentally, drawing upon known facts  Count in multiples of 11 and 12	Multiple and divide whole numbers and those involving decimals by 10, 100 and 1000	Multiply numbers by up to 4 digits by a 1 or 2-digit number using a formal written method, including long multiplication for 2 digit numbers	Divide numbers up to 4 digits by a one digit number using the formal written method of short division and interpret remainders appropriately for context	Establish whether a number up to 100 is prime and recall prime numbers up to 19	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	Recognise and use square numbers and cube numbers and the notation for squared ( $3^2$ ) and cubed ( $4^3$ )	Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers

### Problem solving

Solve problems involving multiplication and division using their knowledge of factors and multiples, squares and cubes	Solve problems involving +, -, x and divide, and a combination of these, including understanding the meaning of the equals sign	Solve problems, involving multiplication and division, including scaling by simple fractions and problems involving simple rates
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## Number: Fractions and Decimals

Recognising fractions	Comparing fractions	Comparing decimals	Rounding	Equivalence			
Recognise and use thousandths and use them to relate to tenths, hundredths and	Compare and order fractions whose denominators are all multiples of the same number	Read, write, order and compare numbers with up to 3	Round decimals with 2 decimal places to the nearest	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and	Read and write decimal numbers as fractions (for example,	Recognise and use thousandths and relate them to tenths, hundredths and	Recognise the percentage symbol (%) sign and understand that percent relates to

decimal equivalents	Multiply fractions by whole numbers	decimal places	whole number and to 1 decimal place	hundredths as a percentage	0.71=71/100	decimal equivalents	the 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction
<b>Addition and subtraction</b>		<b>Multiplication and Division</b>		<b>Problem solving</b>			
Add and subtract fractions with the same denominator and denominators that are multiples of the same number		Recognise mixed numbers and improper Fractions and convert from one form to the other and write mathematical statement > 1 as a mixed number (for example, $2/5 + 4/5 + 6/5 = 1 \frac{1}{5}$ )		Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Solve problems involving numbers up to 3 decimals	Solve problems which require knowing percentages and decimal equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25	
<b>Comparing and estimating</b>	<b>Measuring and calculating, including money</b>			<b>Converting</b>		<b>Telling the time</b>	
Estimating volume (for example, using $1\text{cm}^3$ blocks to build cuboids (including cubes) and capacity (for example using water)	Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the areas of irregular shapes.	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling	Convert between different units of metric measure (for example, kilometre and metre, centimetre and metre, millimetre; gram and kilogram; litre and millilitre)	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	Solve problems involving converting between units of time	
<b>Geometry</b>							
<b>Properties of shape</b>						<b>Position and direction</b>	
<b>Identifying properties</b>	<b>Comparing and classifying</b>		<b>Drawing and constructing</b>	<b>Angles</b>		<b>Position direction and movement</b>	
Identify 3D shapes, including cubes and other cuboids, from 2D representations	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Use the properties of rectangle to deduce related facts and find missing lengths and angles	Draw given angles, and measure them in degrees	Know angles are measured in degree; estimate and compare acute, obtuse and reflex angles	Identify angles at a point and one whole turn (total 360 degrees at a point on a straight line and $\frac{1}{2}$ turn- 180 degrees), other multiples of 90	Identify, describe and represent the position of a shape following a reflection or translation using the appropriate language, and know that the shape has not changed.	
<b>Statistics</b>							
<b>Interpreting, constructing and representing data</b>				<b>Problem solving</b>			
Complete, read and interpret information in tables, including timetables				Solve comparison, sum and difference problems using information presented in a line graph			