St Peter's CE (VA) Primary School

Year 5 Long Term Maths Plan – Mastery Curriculum

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15
Autumn		**N1** Number: Place value			**N2** Number: Addition and Subtraction		**S1** Statistics		**N3** Number: Multiplication and Division			**M1** Measurement: Perimeter and Area			
Spring	**N4** Number: Multiplication and Division				**N5** Number: Fractions					**N6** Number: Decimals and Percentages		Consolidation			
Summer	Consolidation	**N7** Number: Decimals			**G1** Geometry: Properties of Shape			**G2** Geometry: Position and Direction		**M2** Measurement: Converting Units		**M3** Measurement: Volume			

Adapted from White Rose Maths

Year 5							
N1	Number: Place Value (3wks)	**A** read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	**B** count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	**C** interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	**D** round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000	**E** solve number problems and practical problems that involve all of the above	**F** read Roman numerals to 1000 (M) and recognise years written in Roman numerals
N2	Number: Addition and subtraction (2wks)	**A** add and subtract numbers mentally with increasingly large numbers	**B** add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	**C** use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	**D** solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why		
N3	Number: Multiplication and Division (3wks)	**A** multiply and divide numbers mentally drawing upon known facts	**B** multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	**C** identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	**D** recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	**E** solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	**F** know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	**G** establish whether a number up to 100 is prime and recall prime numbers up to 19
N4	Number: Multiplication and Division (3wks)	**A** multiply and divide numbers mentally drawing upon known facts	**B** multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers	**C** divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	**D** solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals		

N5	Number: Fractions (6wks)	**A** compare and order fractions whose denominators are all multiples of the same number	**B** identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	**C** recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $^{2}/_{5} + {}^{4}/_{5} = {}^{6}/_{5} = 1{}^{1}/_{5}$)	**D** add and subtract fractions with the same denominator and multiples of the same number	**E** multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	**F** read and write decimal numbers as fractions (e.g. $0.71 = {}^{71}/_{100}$)	**G** solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates.
N6	Number: Decimals & Percentages (2wks)	**A** read, write, order and compare numbers with up to three decimal places	**B** recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	**C** round decimals with two decimal places to the nearest whole number and to one decimal place	**D** solve problems involving numbers up to three decimal places	**E** recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100 as a decimal fraction	**F** solve problems which require knowing percentage and decimal equivalents of $^{1}/_{2}$, $^{1}/_{4}$, $^{1}/_{5}$, $^{2}/_{5}$, $^{4}/_{5}$ and those with a denominator of a multiple of 10 or 25.	
N7	Number: Decimals (4wks)	**A** recognise and write decimal equivalents of any number of units of tenths or hundredths.	**B** find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths.	**C** solve simple measures and money problems involving fractions and decimals to two decimal places.	**D** convert between different units of measure.			

G1	Geometry: Properties of Shape (3wks)	**A** identify 3-D shapes, including cubes and other cuboids, from 2-D representations	**B** use the properties of rectangles to deduce related facts and find missing lengths and angles	**C** distinguish between regular and irregular polygons based on reasoning about equal sides and angles	**D** know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	**E** draw given angles, and measure them in degrees ($^{\circ}$)	**F** identify: * angles at a point and one whole turn (total 360°) * angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) other multiples of 90°
G2	Geometry: Position and Direction (1wks)	**A** 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					
M1	Measurement: Area and Perimeter (2wks)	**A** measure and calculate the **perimeter** of composite rectilinear shapes in centimetres and metres			**B** calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes		
M2	Measurement: Converting units (2wks)	**A** convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)		**B** understand and use equivalences between metric units and common imperial units such as inches, pounds and pints		**C** solve problems involving converting between units of time	
M3	Measurement: Volume (1wks)	**A** estimate volume (e.g. using 1 cm^3 blocks to build cubes and cuboids) and capacity (e.g. using water)			**B** use all four operations to solve problems involving measure		
S1	Statistics (2wks)	**A** solve comparison, sum and difference problems using information presented in a line graph			**B** complete, read and interpret information in tables, including timetables		