Holy Trinity Catholic Academy - Maths				
	Year 5 – Advent Term **By the end of the advent term, the children in Year 5 will be expected to…**		**Year 6 – Advent Term** **By the end of the advent term, the children in Year 6 will be expected to…**	
Advent Term 1	**Place Value**		**Place Value**	
	Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit		Read, write, order and compare numbers to at least 10,000,000 and determine the value of each digit	
	Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000		Round any whole number to a required degree of accuracy	
	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero		Use negative numbers in context, and calculate intervals across 0	
	Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000, 100,000		Solve number and practical problems that involve all of the above	
	Solve number problems and practical problems that involve all of the above			
	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.			
	Number: Four Operations (Addition + Subtraction)		**Number: Four Operations (Addition + Subtraction)**	
	Add and subtract whole numbers with more than 4 digits, including formal written methods (columnar addition and subtraction)		Perform mental calculations, including with mixed operations and large numbers	
	Add and subtract numbers mentally with increasingly large numbers		Use their knowledge of the order of operations to carry out calculations involving the four operations	
	Use rounding to check answers to calculate 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	
	Solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why.		Solve problems involving addition, subtraction, multiplication and division	
			Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	

	Number: Four Operations (Multiplication + Division)		**Number: Four Operations (Multiplication + Division)**	
	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers		Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	
	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers		Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context	
	Establish whether a number up to 100 is prime and recall prime numbers up to 19		Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.	
	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		Perform mental calculations, including with mixed operations and large numbers	
	Multiply and divide numbers mentally drawing upon known facts		Identify common factors, common multiples and prime 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 the context		Use their knowledge of the order of operations to carry out calculations involving the four operations	
	Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})		Solve problems involving, addition, subtraction, multiplication and division	
	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes			
	Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.			
	Number: Four Operations (All)		**Number: Four Operations (All)**	
	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign		Solve problems involving, addition, subtraction, multiplication and division	

			Use their knowledge of the order of operations to carry out calculations involving the four operations	
			Solve problems involving addition, subtraction, multiplication and division	
Advent Term 2	**Number: Fractions**		**Number: Fractions**	
	Compare and order fractions whose denominators are all multiples of the same number		Use common factors to simplify fractions; use common multiples to express fractions in the same denomination	
	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.		Compare and order fractions, including fractions > 1	
	Recongise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number. EG: 2/5 + 4/5 = 6/5 = 1 1/5		Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	
	Add and subtract fractions with the same denominator and denominators that are multiples of the same number		Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ¼ x ½ = 1/8]	
	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.		Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6]	
	Year 5 – Lent Term **By the end of the Lent term, the children in Year 5 will be expected to…**		**Year 6 – Lent Term** **By the end of the Lent term, the children in Year 6 will be expected to…**	
Lent Term 1	**Number: Fractions**		**Ratio and Proportion**	
	During the Year 6 Ratio unit allow Year 5 children to cover objectives not met from Advent/allow children to show greater depth through reasoning. Teacher to populate …		Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts	
			Solve problems involving similar shapes where the scale factor is known or can be found	

			Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	
			Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison	
	Number: Decimal and Percentages		**Number: Decimal and Percentages**	
	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000		Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]	
	Read and write decimals as fractions [for example, 0.71 = 71/100]		Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places	
	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents		Multiply one-digit numbers with up to two decimal places by whole numbers	
	Round decimals with two decimal places to the nearest whole number and to one decimal place		Use written division methods in cases where the answer has up to two decimal places	
	Read, write, order and compare numbers with up to three decimal places		Solve problems which require answers to be rounded to specified degrees of accuracy	
	Solve problems involving number up to three decimal places (see below)		Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	
	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, and as a decimal			
	Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.			

	Number: Decimals NC Statement - Solve problems involving number up to three decimal places		**Algebra**	
	Add decimal numbers within 1		Use simple formulae	
	Subtract decimal numbers within 1		Generate and describe linear number sequences	
	Number bonds to 1 – using knowledge of number bonds to 10, 100 and 1000		Express missing number problems algebraically	
	Using number bonds to 1 to cross the whole. EG: 0.74+0.48 = 0.74+0.26+0.22=1.22		Find pairs of numbers that satisfy an equation with two unknowns	
	Adding decimals with the same number of decimal places		Enumerate possibilities of combinations of two variables	
	Subtracting decimals with the same number of decimal places			
	Adding decimals with a different number of decimal places			
	Subtracting decimals with a different number of decimal places			
	Add and Subtract decimals from whole numbers. EG: 31.00 – 1.37 = 29.63			
	Solve problems in sequencing decimals – EG: 9.48, 9.52, 9.65 9.6, … (The next number is 9.64)			
Lent Term 2	**Measurement – Converting Units**		**Measurement – Converting Units**	
	Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)		Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	
	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints		Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places	
	Solve problems involving converting between units of time		Convert between miles and kilometres	

	Measurement – Perimeter, Area and Volume		**Measurement – Perimeter, Area and Volume**	
	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres		Recognise that shapes with the same areas can have different perimeters and vice versa	
	Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.		Recognise when it is possible to use formulae for area and volume of shapes	
	Estimate volume [for example, using 1 cm^3 block to build cuboids (including cubes)] and capacity [for example, using water]		Calculate the area of parallelograms and triangles	
	Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling		Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), extending to other units [for example, mm^3 and km^3]	
	Statistics		**Statistics**	
	Solve comparison, sum and difference problems using information presented in a line graph		Interpret and construct pie charts and line graphs and use these to solve problems	
	Complete, read and interpret information in tables, including timetables		Calculate and interpret the means as an average	
	Year 5 – Pentecost Term **By the end of the Pentecost term, the children in Year 5 will be expected to…**		**Year 6 – Pentecost Term** **By the end of the Pentecost term, the children in Year 6 will be expected to…**	
Pentecost Term 1	**Geometry – Properties of Shape**		**Geometry – Properties of Shape**	
	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations		Draw 2-D shapes using given dimensions and angles	
	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles		Recognise, describe and build 3-D shapes, including making nets	
	Draw given angles, and measure them in degrees (^{o})		Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	

	Identify: Angles at a point and one whole turn (total 360^o) Angles at a point on a straight line and ½ a turn (total 180^o) Other multiples of 90^o		Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	
	Use the properties of rectangles to deduce related facts and find missing lengths and angles		Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	
	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles			
	Geometry – Position and Directions		**Geometry – Position and Direction**	
	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 changes		Describe positions on the full coordinate grid (all four quadrants)	
			Draw and translate simple shapes on the coordinate plane, and reflect them in the axes	
	Consolidation Period Populate below with objectives which have not been met.		**Consolidation Period (After SATs)** Populate below with objectives which have not been met.	
Pentecost Term 2				