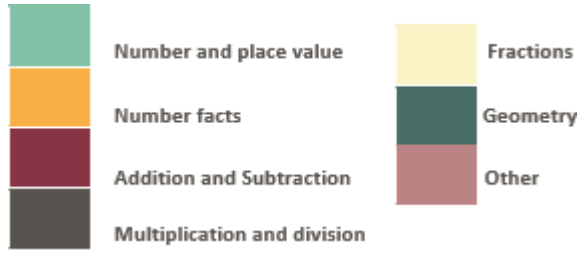
Year 5/6 Maths Curriculum – Year A



	1	2	3	4	5	6	7	8	9	10	11	12	13
Autumn	**Unit 1 (NCETM Y5)** Decimal fractions					**Unit 2 (NCETM Y5)** Money		**Unit 3 (NCETM Y5)** Negative numbers		**Unit 4 (NCETM Y6)** Short multiplication and short division			
Starter	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5
Spring	**Unit 5 (NCETM Y6 Unit 5)** Multiplication and division		**Unit 6 (NCETM Y5 Unit 5)** Area and scaling			**Unit 7 (NCETM Y5 Unit 6)** Calculating with decimal fractions			**Unit 8 (NCETM Y5)** Fractions				
Starter	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5
Summer	**Revision for KS2 SATS (including contentfrom Cycle B and light touch convertingunits of measure and angles)**			**KS2 SATS**	**Unit 9 (NCETM Y5 Unit 7)** Factors, multiples and primes				**Unit 10 (NCETM Y5 Unit 9)** Converting units		**Unit 11 (NCETM Y6 Unit 10)** Angles		
Starter	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5	Fluency in 5

Unit	Year 5 and 6 NCETM	NC Objectives	WR Support
1	**NCETM Year 5 Unit 1 - Decimal fractions (5 Weeks)** • **5NPV–1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1.** **Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01.** **Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.** • **5NPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non- standard partitioning.** • **5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.** • **5NPV–4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.** • **5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).** • **1.23 Composition and calculation: tenths** • **1.24 Composition and calculation: hundredths and thousandths**	**Number – Number and Place Value** **Number – Multiplication and Division** • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods (NC Y3 NCETM Y5) • 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 (NC Y4 NCETM Y5) • recognise and use factor pairs and commutativity in mental calculations (NC Y4 NCETM Y5) • multiply two-digit and three-digit numbers by a one-digit number using formal written layout (NC Y4 NCETM Y5) **Number - Fractions** • count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 (NC Y3 NCETM Y5) • count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. (NC Y4 NCETM Y5) • round decimals with one decimal place to t he nearest whole number (NC Y4 NCETM Y5) • recognise and write decimal equivalents of any number of tenths or hundredths (NC Y4 NCETM Y5) • compare numbers with the same number of decimal places up to two decimal places (NC Y4 NCETM Y5) • solve simple measure and money problems involving fractions and decimals to two decimal places (NC Y4 NCETM Y5) • read and write decimal numbers as fractions [for example, 0.71 = 71/100] • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • round decimals with two decimal places to the nearest whole number and to one decimal place • read, write, order and compare numbers with up to three decimal places • solve problems involving number up to three decimal places **Measurement** • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. Non Statutory Notes NPV - They begin to extend their knowledge of the number system to include the decimal numbers and fractions that they have met so far. (NC Y4 NCETM Y5) NMD - Pupils develop efficient mental methods, for example, using commutativity and associativity (for example, 4 × 12 × 5 = 4 × 5 × 12 = 20 × 12 = 240) and multiplication and division facts (for example, using 3 × 2 = 6, 6 ÷ 3 = 2 and 2 = 6 ÷ 3) to derive related facts (for example, 30 × 2 = 60, 60 ÷ 3 = 20 and 20 = 60 ÷ 3). (NC Y3 NCETM Y5) NMD - Pupils develop reliable written methods for multiplication and division, starting with calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short multiplication and division.(NC Y3 NCETM Y5) NMD - Pupils practise mental methods and extend this to three-digit numbers to derive facts, (for example 600 ÷ 3 = 200 can be derived from 2 x 3 = 6) (NC Y4 NCETM Y5)	Spring Term Decimals and Percentages Year 5 and 6

		Pupils practise to become fluent in the formal written method of short multiplication and short division with exact answers (see Mathematics Appendix 1). (NC Y4 NCETM Y5) NF - Pupils connect tenths to place value, decimal measures and to division by 10.(NC Y3 NCETM Y5) NF - Pupils should connect hundredths to tenths and place value and decimal measure.(NC Y4 NCETM Y5) NF - Pupils understand the relation between non-unit fractions and multiplication and division of quantities, with particular emphasis on tenths and hundredths. (NC Y4 NCETM Y5) NF - Pupils are taught throughout that decimals and fractions are different ways of expressing numbers and proportions. (NC Y4 NCETM Y5) NF - Pupils' understanding of the number system and decimal place value is extended at this stage to tenths and then hundredths. This includes relating the decimal notation to division of whole number by 10 and later 100. (NC Y4 NCETM Y5) NF - Pupils learn decimal notation and the language associated with it, including in the context of measurements. They make comparisons and order decimal amounts and quantities that are expressed to the same number of decimal places. They should be able to represent numbers with one or two decimal places in several ways, such as on number lines. (NC Y4 NCETM Y5) GPS - Pupils connect decimals and rounding to drawing and measuring straight lines in centimetres, in a variety of contexts (NC Y3 NCETM Y5) NPV - They continue to use number in context, including measurement. Pupils extend and apply their understanding of the number system to the decimal numbers and fractions that they have met so far. NPV - They should recognise and describe linear number sequences, including those involving fractions and decimals, and find the term-to-term rule. NPV - They should recognise and describe linear number sequences (for example, 3, 3 1/2 , 4, 4 1/2 ...), including those involving fractions and decimals, and find the term-to-term rule in words (for example, add 1/2). NF - They extend their knowledge of fractions to thousandths and connect to decimals and measures NF - Pupils say, read and write decimal fractions and related tenths, hundredths and thousandths accurately and are confident in checking the reasonableness of their answers to problems. NF - They mentally add and subtract tenths, and one-digit whole numbers and tenths. NF - They practise adding and subtracting decimals, including a mix of whole numbers and decimals, decimals with different numbers of decimal places, and complements of 1 (for example, 0.83 + 0.17 = 1).	
2	**NCETM Year 5 Unit 2 – Money (2 Weeks)** • **1.25 Addition and subtraction: money**	**Measure** • Add and subtract amounts of money to give change, using both £ and p in practical contexts (NC Y3 NCETM Y5) • estimate, compare and calculate different measures, including money in pounds and pence (NC Y4 NCETM Y5) • Pupils build on their understanding of place value and decimal notation to record metric measures, including money. (NC Y4 NCETM Y5) Non Statutory Notes NMD - Pupils practise mental methods and extend this to three-digit numbers to derive facts, (for example 600 ÷ 3 = 200 can be derived from 2 x 3 = 6) (NC Y4 NCETM Y5) MND - Pupils practise to become fluent in the formal written method of short multiplication and short division with exact answers (see Mathematics Appendix 1). (NC Y4 NCETM Y5) M - Pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They record £ and p separately. The decimal recording of money is introduced formally in year 4. (NC Y3 NCETM Y5) NF - Pupils should go beyond the measurement and money models of decimals, for example, by solving puzzles involving decimals.	
3	**NCETM Year 5 Unit 3 - Negative numbers (Negative Numbers)** • **1.27 Negative numbers: counting, comparing and calculating**	**Number – Number and Place Value** • use negative numbers in context, and calculate intervals across zero (NC Y6 NCETM Y5) • Count backwards through zero to include negative numbers (NC Y4 NCETM Y5) • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects (NC Y3 NCETM Y5)	

		• solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. (NC Y4 NCETM Y4,5,6) • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero and solve number problems and practical problems that involve all of the above **Measurement** • Using the number line, pupils use, add and subtract positive and negative integers for measures such as temperature. (NC Y6 NCETM Y5) **Non Statutory Notes** NMD - Pupils solve simple problems in contexts, deciding which of the four operations to use and why. These include measuring and scaling contexts, (for example, four times as high, eight times as long etc.) and correspondence problems in which m objects are connected to n objects (for example, 3 hats and 4 coats, how many different outfits?; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children).	
4	**NCETM Year 5 Unit 4 - Short multiplication and short division (4 Weeks)** • **5MD–3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.** • **5MD–4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.** • **2.14 Multiplication: partitioning leading to short multiplication** • **2.15 Division: partitioning leading to short division**	**Number – Multiplication and Division** • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods (NC Y3 NCETM Y4,5,6) • 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 (NC Y4 NCETM Y4,5,6) • recognise and use factor pairs and commutativity in mental calculations (NC Y4 NCETM Y4,5,6) • multiply two-digit and three-digit numbers by a one-digit number using formal written layout (NC Y4 NCETM Y4,5,6) • 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 • multiply and divide numbers mentally drawing upon known facts • 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 **Non Statutory Notes** NMD - Pupils develop efficient mental methods, for example, using commutativity and associativity (for example, 4 × 12 × 5 = 4 × 5 × 12 = 20 × 12 = 240) and multiplication and division facts (for example, using 3 × 2 = 6, 6 ÷ 3 = 2 and 2 = 6 ÷ 3) to derive related facts (for example, 30 × 2 = 60, 60 ÷ 3 = 20 and 20 = 60 ÷ 3). (NC Y3 NCETM Y4,5,6) Pupils practise mental methods and extend this to three-digit numbers to derive facts, (for example 600 ÷ 3 = 200 can be derived from 2 x 3 = 6) (NC Y4 NCETM Y5) Pupils practise to become fluent in the formal written method of short multiplication and short division with exact answers (see Mathematics Appendix 1). (NC Y4 NCETM Y5) NMD - Pupils develop reliable written methods for multiplication and division, starting with calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short multiplication and division. (NC Y3 NCETM Y4,5,6) NMD - Pupils practise and extend their use of the formal written methods of short multiplication and short division (see Mathematics Appendix 1). They apply all the multiplication tables and related division facts frequently, commit them to memory and use them confidently to make larger calculations. NMD - Pupils interpret non-integer answers to division by expressing results in different ways according to the context, including with remainders, as fractions, as decimals or by rounding (for example, 98 ÷ 4 = 98/4 = 24 r 2 = 24 /21 = 24.5 ≈ 25). NMD - Distributivity can be expressed as a(b + c) = ab + ac.	Autumn Multiplication and Division Year 5 and 6
5	**NCETM Year 6 Unit 5 – Multiplication and Division (Long Multiplication and Long Division Only) (2 Weeks)**	**Number – Addition and Subtraction, Multiplication and Division** • multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • 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	Spring Term Multiplication and Division Year 5 and 6

	• **6AS/MD–2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.** • 2.23 Multiplication strategies for larger numbers and long multiplication • 2.24 Division: dividing by two-digit divisors	• 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 **Non Statutory Notes** NASMD - Pupils practise addition, subtraction, multiplication and division for larger numbers, using the formal written methods of columnar addition and subtraction, short and long multiplication, and short and long division (see Mathematics Appendix 1). NB – This will be taught as an over teach unit in both the Year A and Year B cycle (teach objectives above ONLY).	
6	**NCETM Year 5 Unit 5 - Area and scaling (3 Weeks)** • **5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units.** • 2.16 Multiplicative contexts: area and perimeter 1 • 2.17 Structures: using measures and comparison to understand scaling	**Measurement** • Find the area of rectilinear shapes by counting squares (NC Y4 NCETM Y5) • They relate area to arrays and multiplication. (NC Y4 NCETM Y5) • calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes • recognise that shapes with the same areas can have different perimeters and vice versa (NC Y6 NCETM Y5) • recognise when it is possible to use formulae for area and volume of shapes (NC Y6 NCETM Y5) • calculate the area of parallelograms and triangles (NC Y6 NCETM Y5) **Number – Multiplication and Division** • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects (NC Y3 NCETM Y5) • solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. NC Y4, NCETM Y4,5,6) • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates • solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes **Non Statutory Notes** M - The comparison of measures includes simple scaling by integers (for example, a given quantity or measure is twice as long or five times as high) and this connects to multiplication. (NC Y3 NCETM Y5) NMD - Pupils solve simple problems in contexts, deciding which of the four operations to use and why. These include measuring and scaling contexts, (for example, four times as high, eight times as long etc.) and correspondence problems in which m objects are connected to n objects (for example, 3 hats and 4 coats, how many different outfits?; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children). (NC Y3 NCETM Y5) NMD - Pupils use multiplication and division as inverses to support the introduction of ratio in year 6, for example, by multiplying and dividing by powers of 10 in scale drawings or by multiplying and dividing by powers of a 1000 in converting between units such as kilometres and metres. NF - Pupils connect multiplication by a fraction to using fractions as operators (fractions of), and to division, building on work from previous years. This relates to scaling by simple fractions, including fractions > 1. M - Pupils calculate the area from scale drawings using given measurements.	Autumn Perimeter and Area Year 5 and 6
7	**NCETM Y5 Unit 6 - Calculating with decimal fractions (3 Weeks)** • **5MD–1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.** • 2.19 Calculation: ×/÷ decimal fractions by whole numbers • 2.29 Decimal place-value knowledge, multiplication and division	**Number – Fractions** • 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 (NC Y4 NCETM Y5) • 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 (NC Y6 NCETM Y5) • multiply one-digit numbers with up to two decimal places by whole numbers (NC Y6 NCETM Y5) **Number – Multiplication and Division**	Autumn Multiplication and Division Year 5 and 6

		• multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 **Measurement** • They use multiplication to convert from larger to smaller units. (NC Y4 NCETM Y5) • 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 (NC Y6 NCETM Y5) • 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 (NC Y6 NCETM Y5) **Non Statutory Notes** M - Pupils use their knowledge of place value and multiplication and division to convert between standard units. NF - Pupils can explore and make conjectures about converting a simple fraction to a decimal fraction (for example, 3 ÷ 8 = 0.375). For simple fractions with recurring decimal equivalents, pupils learn about rounding the decimal to three decimal places, or other appropriate approximations depending on the context. Pupils multiply and divide numbers with up to two decimal places by one-digit and two-digit whole numbers. Pupils multiply decimals by whole numbers, starting with the simplest cases, such as 0.4 × 2 = 0.8, and in practical contexts, such as measures and money. (NC Y6 NCETM Y5) NF - Pupils are introduced to the division of decimal numbers by one-digit whole number, initially, in practical contexts involving measures and money. They recognise division calculations as the inverse of multiplication. (NC Y6 NCETM Y5) NF - Pupils also develop their skills of rounding and estimating as a means of predicting and checking the order of magnitude of their answers to decimal calculations. This includes rounding answers to a specified degree of accuracy and checking the reasonableness of their answers. (NC Y6 NCETM Y5)	
8	**Fractions (5 Weeks)** • **5NPV–5 Convert between units of measure, including using common decimals and fractions.** • **5F–1 Find non-unit fractions of quantities.** • **5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.** • **5F–3 Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10, and for multiples of these proper fractions.** • **3.6 Multiplying whole numbers and fractions** • **3.7 Finding equivalent fractions and simplifying fractions** • **3.10 Linking fractions, decimals and percentages**	**Number Fractions** • recognise and show, using diagrams, equivalent fractions with small denominators (NC Y3 NCETM Y5) • recognise and show, using diagrams, families of common equivalent fractions (NC Y4 NCETM Y5) • solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number (NC Y4 NCETM Y5) • recognise and write decimal equivalents to 1/4 , 1/2 , ¾ (NC Y4 NCETM Y5) • compare and order fractions whose denominators are all multiples of the same number • identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams **Non Statutory Notes** NF - Pupils use factors and multiples to recognise equivalent fractions and simplify where appropriate (for example, 6/9 = 2/3 or 1/4 = 2/8). (NC Y4 NCETM Y5) NF - Pupils continue to develop their understanding of fractions as numbers, measures and operators by finding fractions of numbers and quantities. NF - Pupils use their understanding of the relationship between unit fractions and division to work backwards by multiplying a quantity that represents a unit fraction to find the whole quantity (for example, if 1/4 of a length is 36cm, then the whole length is 36 × 4 = 144cm). (NC Y6 NCETM Y5)	Spring Fractions Year 5 and 6
9	**NCETM Y5 Unit 7 - Factors, multiples and primes (4 Weeks)** • **5MD–2 Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.** • **2.20 Multiplication with three factors and volume**	**Number – Multiplication and Division** • identify common factors, common multiples and prime numbers (NC Y6 NCETM Y5) • recognise when it is possible to use formulae for area and volume of shapes (NC Y6 NCETM Y5) • identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	Autumn Multiplication and Division Year 5 and 6

	• 2.21 Factors, multiples, prime numbers and composite numbers	• establish whether a number up to 100 is prime and recall prime numbers up to 19 • recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) **Measurement** • estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water] **Non Statutory Notes** NMD - They use and understand the terms factor, multiple and prime, square and cube numbers. NMD - They understand the terms factor, multiple and prime, square and cube numbers and use them to construct equivalence statements (for example, 4 x 35 = 2 x 2 x 35; 3 x 270 = 3 x 3 x 9 x 10 = 9^2 x 10).	
10	**NCETM Y5 Unit 9 - Converting units (2 Weeks)** **• 5NPV–5 Convert between units of measure, including using common decimals and fractions.**	**Measurement** • 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 • convert between miles and kilometres (NC Y6 NCETM Y5) **Non Statutory Notes** M - Pupils use all four operations in problems involving time and money, including conversions (for example, days to weeks, expressing the answer as weeks and days). M - Pupils connect conversion (for example, from kilometres to miles) to a graphical representation as preparation for understanding linear/proportional graphs (NC Y6 NCETM Y5) M - They know approximate conversions and are able to tell if an answer is sensible. (NC Y6 NCETM Y5)	Summer Converting Units Y 5 and 6
11	**NCETM Y5 Unit 10 – Angles (3 Weeks)** **• 5G–1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.**	**Geometry – Properties of shape** • identify acute and obtuse angles and compare and order angles up to two right angles by size (NC Y4 NCETM Y5) • identify 3-D shapes, including cubes and other cuboids, from 2-D representations • know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • draw given angles, and measure them in degrees (o) **dentify:** • **angles at a point and one whole turn (total 360o)** • **angles at a point on a straight line and 1/2 a turn (total 180o)** • **other multiples of 90o** • **use the properties of rectangles to deduce related facts and find missing lengths and angles** **Non Statutory Notes** GPS - Pupils become accurate in drawing lines with a ruler to the nearest millimetre, and measuring with a protractor. They use conventional markings for parallel lines and right angles. GPS - Pupils use the term diagonal and make conjectures about the angles formed between sides, and between diagonals and parallel sides, and other properties of quadrilaterals, for example using dynamic geometry ICT tools. GPS - Pupils use angle sum facts and other properties to make deductions about missing angles and relate these to missing number problems.	Summer Properties of Shape Y 5 and 6