Year 5 Maths – Autumn Term

	Week 1-3 Block 1	Week 4-5 Block 2	Week 6-8 Block 3	Week 9-12 Block 4
	Number: Place Value	Number: Addition and Subtraction	Number: Multiplication and Division	Number: Fractions A
White Rose Small Steps	• Roman numerals to 1000 • Read and write numbers to 10,000 (use manipulatives and pictorial representations) • Read and write numbers to 100,000 (use manipulatives and pictorial representations) • Read and write numbers to a million • Counting in 10s, 100s, 1000s, 10,000s, 100,000s • 10/100/1,000/10,000/100,000 more or less • Partition numbers to 1 million • Compare and order numbers to 100,000 • Compare and order numbers to 1 million • Round to the nearest 10, 100, 1000 • Round numbers within 100,000 • Round numbers to a million	• Mental Strategies • Add whole numbers with more than 4-digits (compact column method) • Subtract whole numbers with more than 4-digits (compact column method) • Round to estimate and approximate • Inverse operations (addition and subtraction) • Multi-step addition and subtraction problems • Compare calculations	• Multiples • Common Multiples • Factors • Common Factors • Common Factors • Prime numbers • Square numbers • Cube numbers • Multiplying by 10, 100 and 1000 • Dividing by 10, 100 and 1000 • Multiples of 10, 100 and 1000	• Equivalent fractions (unit and non-unit fractions) • Improper fractions to mixed numbers • Mixed numbers to improper fractions • Number sequences • Compare fractions less than 1 • Order fractions lesson than 1 • Compare and order fractions greater than 1 • Add and subtract fractions with the same denominator • Add fractions within 1 • Add fractions with a total greater than 1 • Add to a mixed number • Add two mixed numbers • Subtract fractions • Subtract from a mixed number • Subtract two mixed numbers

Year 5 Maths – Autumn Term

National Curriculum	• Read, write, order and compare numbers to at least 1 000 000 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 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 ¤ • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • Add and subtract numbers mentally with increasingly large numbers • 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.	• 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 (nonprime) numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Multiply numbers up to 4 digits by a one- or two-digit number using a formal method, including long multiplication for 2-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 • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}) • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • Solve problems involving addition, subtraction, multiplication and division 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.	• 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 • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (for example $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1\frac{1}{5}$) • Add and subtract fractions with the same denominator and denominators that are multiples of the same number

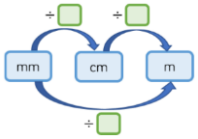
Year 5 Maths – Spring Term

	Week 1-3 Block 1	Week 4-5 Block 2	Week 6-8 Block 3	Week 9-10 Block 4	Week 11-12 Block 5
	Number: Multiplication and Division	Number: Fractions B	Number: Decimals and Percentages	Measurement: Perimeter and Area	Statistics
White Rose Small Steps	• Multiply 4-digits by 1-digit (short multiplication) • Multiply 2-digits by 2-digits (long multiplication) • Multiply 3-digits by 2-digits (long multiplication) • Multiply 4-digits by 2-digits (long multiplication) • Divide 4-digits by 1-digit (short division) • Divide with remainders	• Multiply unit fractions by an integer (for example $\frac{1}{6}$ x 4) • Multiply a non-unit fraction by an integer (for example $\frac{3}{8}$ x 2) • Multiply mixed numbers by integers (for example $2\frac{2}{3}$ x 4) • Fractions of amounts • Commutativity in fractions (for example 2 lots of $\frac{1}{10}$ is the same as $\frac{1}{10}$ of 2)	• Decimals to 2 d.p. • Decimals as fractions • Understanding thousandths • Thousands as decimals • Rounding decimals • Order and compare decimals • Understand percentages • Percentages as fractions and decimals • Equivalent FDP	• Measure perimeter • Calculate perimeter • Area of rectangles • Area of compound shapes • Area of irregular shapes	• Read and interpret line graphs • Draw line graphs • Use line graphs to solve problems • Read and interpret tables • Two way tables • Timetables
National Curriculum	• 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	• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • Read and write decimal numbers as fractions (for example, 0.71 = $\frac{71}{100}$) • Solve problems involving multiplication and	• Read, write, order and compare numbers with up to three decimal places • 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 • Solve problems involving number up to three decimal places	• Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Calculate and compare the area of rectangles (including squares), and including using	• Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information

Year 5 Maths – Spring Term

	number using the formal written method of short division and interpret remainders appropriately for the context • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	division, including scaling by simple fractions and problems involving simple rates	• 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 $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{5}$ $\frac{2}{5}$ $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.	standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes	in tables, including timetables.

Year 5 Maths – Summer Term

	Week 1-3 Block 1	Week 4-5 Block 2	Week 6-8 Block 3	Week 9 Block 4	Week 10-11 Block 5	Week 12 Block 6
	Geometry: Properties of Shapes	Geometry: Position and Direction	Number: Decimals	Number: Negative Numbers	Measurement: Converting Units	Measurement: Volume
White Rose Small Steps	• Measuring angles in degrees • Measuring with a protractor • Drawing lines and angles accurately • Calculating angles on a straight line • Calculating angles around a point • Calculating lengths and angles in shapes • Regular and irregular polygons • Reasoning about 3-D shapes	• Position in the first quadrant • Reflection • Reflection with coordinates • Translation • Translation with coordinates	• Adding decimals within 1 • Subtracting decimals within 1 • Finding complements which sum to make 1 (for example 0.55 + __ = 1) • Adding decimals – crossing the whole (0.45 + 0.67 = 1.12) • Adding decimals with the same number of decimal places • 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 • Adding and subtracting whole numbers and decimals	• Explore negative numbers and their position on a number line • Use negative numbers in context e.g. temperature and count back through zero.	• Convert kilograms to grams and vice versa • Convert kilometres to metres and vice versa • Covert litres to millilitres and vice versa • Convert grams to milligrams and vice versa • Converting between metric units e.g. millimetres to metres.  • Understand and use approximate equivalences between metric units and imperial units such as inches, pounds (lbs) and pints. e.g. 1 inch ≈ 2.5cm • Converting units of time e.g. $\frac{1}{3}$ of an hour = __ minutes • Timetables	• What is volume? • Compare volume • Estimate volume • Estimate capacity

Year 5 Maths – Summer Term

			• Decimal sequences • Multiplying decimals by 10,100 and 1000 • Dividing decimals by 10, 100 and 1000			
National Curriculum	• 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 (°) • 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° • Use the properties of rectangles to deduce related facts and find missing lengths and angles	• 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.	• Solve problems involving number up to three decimal places • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	• Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	• Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and 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	• Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water] • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal

• Distinguish between regular and irregular polygons based on reasoning about equal sides and angles					notation, including scaling.

Year 5 Maths - Summer Term