MATHS YEAR 5 - SPRING

WEEK	UNIT OF MATHS - NUMBER	UNIT OF MATHS - NON-NUMBER (1 day each week throughout Spring Term)
1-2	**Multiplication and Division (cont'd)** • multiply and divide numbers mentally drawing upon known facts • recognise and use factor pairs and commutativity in mental calculations • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • 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 • multiply two-digit and three-digit numbers by a one-digit number using formal written layout • 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 • 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 • 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	**Geometry – Angles and Circles (cont'd)** • know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • identify acute and obtuse angles and compare and order angles up to two right angles by size • 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° • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angle • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius **UNIT SPECIFIC VOCABULARY** angle, turn, clockwise, anti-clockwise, arc, degrees, right angle, acute angle, obtuse angle, reflex angle, internal angle, external angle, perpendicular line, adjacent angle, vertically opposite angle, intersecting lines, estimate, protractor radius, diameter, circumference

- 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
- know and use the vocabulary of prime numbers, prime factors and composite (non-prime) 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})
- 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 which require answers to be rounded to specified degrees of accuracy

USE ESTIMATION TO CHECK ANSWERS TO CALCULATIONS AND DETERMINE, IN THE CONTEXT OF A PROBLEM, AN APPROPRIATE DEGREE OF ACCURACY

UNIT SPECIFIC VOCABULARY

calculation, estimate, procedure, repeated addition, equal groups, times tables, multiply, multiple, regroup, commutative, distributive law, times, factor, product, multiplier, multiplicand, represent, division, divide, share equally, find the number of groups, dividend, divisor, quotient, remainder

Geometry - Shape

Properties of Shapes – Parallelograms, rhombuses and trapeziums

- draw 2-D shapes using given dimensions and angles
- solve problems involving similar shapes where the scale factor is known or can be found

UNIT SPECIFIC VOCABULARY

Polygon, parallelogram, parallel sides, rhombus, trapezium, orientation, dimension, compose, decompose, angle, protractor, adjacent sides

2-3	**Order of Operations** • use their knowledge of the order of operations to carry out calculations involving the four operations **UNIT SPECIFIC VOCABULARY** calculation, operation, brackets, order	
4-7	**Fractions** • ***recognise, find and write fractions of a discrete set of objects: non-unit fractions*** • ***recognise and use fractions as numbers: non-unit fractions*** • 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 • ***solve simple measure and money problems involving fractions*** • recognise and show, using diagrams, families of common equivalent fractions • identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • compare and order fractions, including fractions > 1 • recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ • solve problems which require answers to be rounded to specified degrees of accuracy	

	UNIT SPECIFIC VOCABULARY whole, parts, equal parts, fraction, numerator, denominator, fraction bar, unit fraction , non-unit fraction, equivalent fraction, like fraction, unlike fraction decimal equivalent four lots of one-fifth = four one-fifths = four-fifths four fifths is four lots of one-fifth	
8-12	**Decimals 1** • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. • multiply one-digit numbers with up to two decimal places by whole numbers • solve problems involving number up to three decimal places • use written division methods in cases where the answer has up to two decimal places • solve simple measure and money problems involving fractions and decimals to two decimal places. • **estimate, compare and calculate different measures, including money in pounds and pence** • **use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling** **UNIT SPECIFIC VOCABULARY** whole, decimal, decimal point, digit, equal parts, divide ones, tenths, hundredths, regroup, decimal place, decimal equivalents, , round, fractions, conversion/convert, divide, unit of measure, procedure, place holder	