Year 5 Term 1

PLEASE NOTE: ASSESSMENT WEEKS (TERMS 2, 4 & 6) ARE SUBJECT TO CHANGE WITHIN THE TERM BUT THE PROGRESSION WILL NOT ALTER

Number - number and place value (2 weeks)

- 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
- interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0
- round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000
- solve number problems and practical problems that involve all of the above

Number - addition and subtraction (3 weeks)

- 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

Multiplication and Division (1 week)

- multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000

Mental oral starter	**Shape 2d and 3d (Yr 4)** compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes identify acute and obtuse angles and compare and order angles up to two right angles by size identify lines of symmetry in 2-D shapes presented in different orientations complete a simple symmetric figure with respect to a specific line of symmetry.	**Measure (Yr 4)** Convert between different units of measure [for example, kilometre to metre; hour to minute] measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	**Measure (Yr 4)** find the area of rectilinear shapes by counting squares estimate, compare and calculate different measures, including money in pounds and pence	**Data (Yr 4)** interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. solve comparison, sum and difference problem	**Time (Yr 4)** read, write and convert time between analogue and digital 12- and 24-hour clocks	**Time (Yr 4)** solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
Counting stick/non negotiable	4s	4s	8s	8s	12s	12s
Main focus	**Place Value** Counting and comparing	**Place Value** Counting and comparing	**Addition and Subtraction** Mental methods	**Addition** Written methods	**Subtraction** Written methods	**Multiplication and division** by 10, 100, 1000 with whole numbers and decimals

								Written method- x

<u>Term 2:</u> Multiplication and Division: (3 weeks)

- 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
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000
- 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

Measurement (2 weeks)

- 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
- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes
- estimate volume [for example, using 1 cm³ 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 notation, including scaling

Moonwalk maths		**Money (Y4)** estimate, compare and calculate different measures, including money in pounds and pence	**Fractions (Y4)** count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to quarter, half and 3 quarter	**Fractions (Y4)** 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 round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places	Assessment week	**Place value (Y4)** count in multiples of 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers		**Place value (Y4)** recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) order and compare numbers beyond 1000	**Place value (Y4)** identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000
Counting stick/non negotiable		3s	3s	3s		6s		6s	6s

Main focus	**Multiplication and division** Written method- x Written method- divide	**Multiplication and division** Written method- divide with remainders	**Consolidation** Al 4 Calculations problem solving		**Measuring space**	**Measuring space**	**Consolidation**

Term 3

Numbers and the number system (3 weeks)

- identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers
- 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})

Number - fractions including decimals and percentages (3 weeks)

- add and subtract fractions with the same denominator, and denominators that are multiples of the same number
- multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- 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

Moonwalk maths (15 mins afternoon)	**Measure (Y4)** Convert between different units of measure [for example, kilometre to metre; hour to minute] measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	**Calculation problems (Y5)** Addition and subtraction word problems	**Data (Y4)** interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.	**Money (Y4)** estimate, compare and calculate different measures, including money in pounds and pence	**Time (Y4)** read, write and convert time between analogue and digital 12- and 24-hour clocks	**Calculation problems (Y5)** Multiplication and division word problems
Counting stick/non negotiable	9s	9s	9s	9s	9s	9s
Main focus	**Numbers and the number system**	**Numbers and the number system**	**Numbers and the number system**	**Exploring fractions, decimals and percentages**	**Exploring fractions, decimals and percentages**	**Exploring fractions, decimals and percentages**

Term 4

Number - fractions including decimals and percentages (3 weeks)

Pupils should be taught to:

- add and subtract fractions with the same denominator, and denominators that are multiples of the same number
- multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- 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

Angles (2 weeks)

- know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles, draw given angles, and measure them in degrees (o)
- identify: angles at a point and one whole turn (total 360o), angles at a point on a straight line and 2 1 a turn (total 180o) and other multiples of 90o
- use the properties of rectangles to deduce related facts and find missing lengths and angles
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

Moonwalk maths (15 mins afternoon)	Calculation problems (Y5) Addition and subtraction word problems	Fractions add and subtract fractions with the same denominator, and denominators that are multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Fractions 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	Place value 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	Place value round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 solve number problems and practical problems that involve all of the above	Calculation problems (Y5) Multiplication and division word problems
Counting stick/non negotiable	7s	7s	7s	7s	7s	7s

Main focus	**Exploring fractions, decimals and percentages**	**Calculating fractions, decimals and percentages**	**Calculating fractions, decimals and percentages**	**Investigating Angles**	**Investigating Angles**	**Consolidation** Problem solving

Term 5

Mathematical movement (2 weeks)

- 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

Presentation of data (1 week)

- solve comparison, sum and difference problems using information presented in a line graph - complete, read and interpret information in tables, including timetables

Shape and space (3 weeks)

- identify 3-D shapes, including cubes and other cuboids, from 2-D representation
- 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 ♣ estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]

Moonwalk maths (afternoon 15 mins)	Numbers and the number system identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	Measure convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] 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 notation, including scaling	Fractions, decimals and percentages	Shape identify 3-D shapes, including cubes and other cuboids, from 2-D representation	Angles	AFL

		Perimeter and area				
Counting stick/non negotiable	11s	11s	11s	3s	6s	4s
Main focus	**Shape**	**Calculating space**	**Calculating space**	**Mathematical movement**	**Mathematical movement**	**Presentation of data**
Term 6						
Place value (1 week) • 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 • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • 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. **Visualizing and constructing_ (1 week)** • 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 **Time (1 week)** • solve problems involving converting between units of time						
Mental oral starter Moonwalk maths	Time Solve problems involving converting between units of time	Shape Identify 3-D shapes, including cubes and other cuboids, from 2-D representation	Data Solve comparison, sum and difference problems using information presented in a line graph - complete, read and interpret information in tables,	Money Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including	Place Value	Consolidation

			including timetables	scaling		
Counting stick/non negotiable	8s	12s	7s	9s	11s	
Main focus	**Place Value: Checking approximating and estimating**	**Exploring time**	**Consolidation**	**Visualising and constructing**	**Consolidation**	**Consolidation**