

KIRFs (Key Instant Recall Facts)		
Autumn	Spring	Summer
<ul style="list-style-type: none"> I know one and two decimal place number bonds for numbers between 1 and 10 I know the multiplication and division facts for all times tables up to 12×12 	<ul style="list-style-type: none"> Recap multiplication and division facts for all times tables up to 12×12 I can find factor pairs of a number I can identify prime numbers up to 50 	<ul style="list-style-type: none"> I can recall square numbers up to 12^2 and their square roots and multiplication and division facts for all times tables up to 12×12 Recall prime numbers up to 50 I can count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000

Quick overall focus curriculum map:

Strand	Number of weeks	Autumn	Spring	Summer
Place value	1	Round, compare, order place value to 10,000	Round, compare, order place value to 100,000	Round, compare, order place value to 1,000,000
Adding and subtracting	2	Adding and subtracting mentally, formally and using estimating of values up to 10,000.	Adding and subtracting mentally, formally and using estimating including decimals of values up to 100,000.	Adding and subtracting mentally, formally and using estimating including decimals and fractions of values up to 1,000,000.
Multiplying and dividing	2/3	To know times tables (up to 12×12), powers of 10, factors, multiples and prime numbers up to 50.	To know times tables (up to 12×12), powers of 10, factors, multiples and prime numbers up to 50.	To know times tables (up to 12×12), powers of 10, factors, multiples and prime numbers up to 100.
		Multiply 4-digit numbers by 1-digit numbers and powers of 10	Multiply 4-digit numbers by 1-digit numbers and teen numbers up to 20	Multiply 4-digit numbers by 2-digit numbers
		Divide numbers with known number facts	Divide 4-digit numbers by 1-digit numbers	Divide 4-digit numbers by 1-digit numbers with remainders, showing fractions or decimal answers
Fractions	2/3	Converting fractions into decimals and percentages, finding equivalent fractions – hundredths up to 1.	Converting fractions into decimals and percentages, finding equivalent fractions – thousandths, and to add and subtract fractions and decimals up to and beyond 1.	Converting fractions into decimals and percentages, finding equivalent fractions and to add, subtract and multiply fractions up to and beyond 1.
Measurements	1/2	Metric conversions in fluency and word problems.	Metric and imperial conversions in fluency problems.	Metric and imperial conversions in fluency and word problems.
		Perimeter of regular and composite shapes and volume regular shapes using different metric conversions.	Area of composite shapes, volume of shapes with the same metric length.	Perimeter and area of composite shapes, volume of shapes with different metric and imperial conversions.
Geometry	1/2	Basic 2D and 3D shape.	Knowledge of angles and lengths distinguishing between regular and irregular polygons.	Solving missing angles that would create a right angle, straight line or a full turn
		Translation and reflection of shapes.	Translations and reflections of shapes with coordinates	Translations and reflections of shapes with coordinates
Statistics	1	Timetables	Timetables and line graphs	Tables and graphs
Daily Maths	daily	Time, shapes, reading tables and graphs, times tables, multiplying and dividing by powers of 10, roman numerals		

	Autumn	Spring	Summer
Number and place value (1 week)	<p>(PM unit 1) Focus 10 000</p> <ul style="list-style-type: none"> • Read, write and compare numbers to at least <u>10 000</u> and determine the value of each digit • Count forwards or backwards in steps of powers of 10 from any given number up to 10,000 • Round any number up to 10 000 to the nearest 10, 100, 1000 and 10 000 • Solve number problems and practical problems that involve number, place value and rounding up to 10 000 	<p>(PM unit 1) Focus 100 000</p> <ul style="list-style-type: none"> • Read, write and compare numbers to at least <u>100 000</u> and determine the value of each digit • Count forwards or backwards in steps of powers of 10 from any given number up to 100000 • Round any number up to 1 00 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • Solve number problems and practical problems that involve number, place value and rounding up to 100 000 • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero 	<p>(PM unit 2) Focus 1 000 000</p> <ul style="list-style-type: none"> • Read, write and compare numbers to at least <u>1 000 000</u> and determine the value of each digit • Count forwards or backwards in steps of powers of 10 from 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 1 000 000 • Solve number problems and practical problems that involve number, place value and rounding up to 1 000 000 • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero
CC	<p>History – dates or periods of time Geography- distances on maps Science- distances and diameters of planets, temperature – negative numbers</p>		

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Addition and subtraction (2 weeks)</p>	<p>(PM unit 3) Focus 10 000</p> <ul style="list-style-type: none"> • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) of values up to 10 000 • Add and subtract numbers mentally with increasingly large numbers of values up to 10 000 • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy of values up to 10 000 • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why of values up to 10 000 	<p>(PM unit 3+) Focus 100 000 including decimals</p> <ul style="list-style-type: none"> • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <u>decimals</u> of values up to 100 000 • Add and subtract numbers mentally with increasingly large numbers of values up to 100 000 • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy of values up to 100 000 • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why of values up to 100 000 	<p>(PM unit 3+9) Focus 1 000 000 including fractions</p> <ul style="list-style-type: none"> • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <u>decimals and fractions</u> of values up to 1 000 000 • Add and subtract numbers mentally with increasingly large numbers of values up to 1 000 000 • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy of values up to 1 000 000 • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why of values up to 1 000 000
<p>CC</p>	<p>DT- Food and calories in a meal Science – Height of plants growth Geography – distance between countries, height of mountains</p>		

<p>Multiplication and Division (2/3 weeks)</p>	<p>(PM unit 5+7) Focus on 1-digit and powers of 10 and division facts</p> <ul style="list-style-type: none"> • Multiply numbers up to 4 digits by a one-digit number and by powers of 10 using a formal written method, including long multiplication for two-digit numbers • Practise and apply multiplication tables and related division facts up to 12 x 12, committing them to memory and using them confidently to make larger calculations • Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers of numbers up to 50 • Know and use the vocabulary of prime numbers and composite (non-prime) numbers of numbers up to 50 • Multiply and divide numbers mentally drawing upon known facts up to 12 x 12 • Multiply and divide whole numbers up to 10 000 and those involving decimals by 10, 100 and 1000 • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign of up to 4-digit numbers 	<p>(PM unit 5+7) Focus on teen numbers and begin 2-digit numbers and division method</p> <ul style="list-style-type: none"> • Multiply numbers up to 4 digits by a two-digit number (starting with teen numbers) using a formal written method, including long multiplication for two-digit numbers (beyond 20) • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division • Recall multiples and factors, including finding all factor pairs of a number and common factors of two numbers of numbers up to 50 • Recall and use the vocabulary of prime numbers and composite (non-prime) numbers of numbers up to 50 • Multiply and divide whole numbers up to 100 000 and those involving decimals by 10, 100 and 1000 • Recognise and use square numbers and cube numbers, and the notation for squared (2) (up to 12²) and cubed (3) (up to 5³) • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign of up to 4-digit numbers 	<p>(PM unit 5+7) Focus on any 2-digit number and division with remainders</p> <ul style="list-style-type: none"> • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign of up to 4-digit numbers • Recall multiples and factors, including finding all factor pairs of a number and common factors of two numbers of numbers up to 100 • Solve problems involving 4-digit multiplication and division where larger numbers are used by decomposing them into their factors • Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers of numbers up to 100 • 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 one-digit number using the formal written method of short division and interpret remainders appropriately for the context showing fractions or decimal answers • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.
<p>CC</p>	<p>History – Creating pyramids with square numbers</p>		

<p>Fractions, percentages and decimals (2/3 weeks)</p>	<p>(PM unit 8-12)- Focus on hundredths</p> <ul style="list-style-type: none"> Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths making links to decimals and measures 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 hundred, and as a decimal fraction Read and write decimal numbers of up to 2 decimal places as fractions Compare and order fractions whose denominators are all multiples of the same number Solve problems involving number up to three decimal places, 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 with a denominator of a multiple of 10 or 25. 	<p>(PM unit 8-12) Focus on thousandths, adding and subtracting</p> <ul style="list-style-type: none"> Recognise mixed numbers and improper fractions and convert from one form to the other Add and subtract fractions with the same or different denominators Add and subtract decimals with a different number of decimal places Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths making links to decimals and measures Compare and order fractions whose denominators are all multiples of the same number Find fractions of numbers and quantities Read, write, order and compare numbers with up to three decimal places Round decimals with two decimal places to the nearest whole number and to one decimal place Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents 	<p>(PM unit 8-12) Focus on Converting between PER DEC FRAC, including multiplying fractions</p> <ul style="list-style-type: none"> Convert confidently between percentages, decimals and fractions Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Compare and order fractions whose denominators are all multiples of the same number Recognise mixed numbers and improper fractions and convert from one form to the other Add and subtract fractions with the same denominator and multiples of the same number Add and subtract decimals with a different number of decimal places 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 and puzzles involving number up to three decimal places, checking the reasonableness of answers 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 with a denominator of a multiple of 10 or 25.
<p>CC</p>	<p>DT- Fractions of foods and balanced diet</p>		

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Measurements (1/2 week)</p>	<ul style="list-style-type: none"> • (PM unit 6 and 16) Focus on metric conversions and perimeter • Convert between different units of metric measure • Measure and calculate the perimeter of composite/ rectilinear shapes in centimetres and metres • Use all four operations to solve problems involving measure • Estimate volume • Solve problems involving converting between units of time 	<ul style="list-style-type: none"> • (PM unit 6,1 6 and 17) Focus on Imperial conversions and area • Understand and use equivalences between metric and common imperial units such as inches, pounds and pints • Calculate and compare the area of rectilinear shapes including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Use all four operations to solve problems involving measure 	<ul style="list-style-type: none"> • (PM unit 6, 16 and 17) Focus on metric and imperial conversions and on perimeter and area • Understand and use equivalences between metric and common imperial units such as inches, pounds and pints • Calculate and compare the area and perimeter of rectilinear shapes including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes • Estimate volume e.g. using 1cm³ blocks to build cubes and cuboids and capacity • Solve problems involving converting between units of time • Use all four operations to solve problems involving measure
<p>CC</p>	<p>Art – painting specific areas – cubism Geography – size of land Business – creating a theme park, consider where to place what. History – size of armies, land gained through war</p>		

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Geometry (1 week)</p>	<p>(PM unit 13 and 14) Focus on naming 2D and 3D shapes</p> <ul style="list-style-type: none"> Identify 3-D shapes, including cubes and other cuboids, from 2-D representations Draw lines accurately to the nearest millimetre and use conventional markings for parallel lines and right angles. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Use the properties of rectangles to deduce related facts and find missing lengths and angles e 	<p>(PM unit 13 and 14) Focus on knowledge of angles in shapes</p> <ul style="list-style-type: none"> Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Draw given angles, and measure them in degrees (°) Identify: o 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° Use angle sum facts and other properties to make deductions about missing angles 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. 	<p>(PM unit 13 and 14) Focus on solving missing angles</p> <ul style="list-style-type: none"> Use angle sum facts and other properties to make deductions about missing angles 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: o 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° Use the properties of rectangles to deduce related facts and find missing lengths and angles
<p>CC</p>	<p>DT – designing buildings, sketching and creating nets Art – Cubism Computing – rotation and angles</p>		
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Position and direction (1 week)</p>	<p>(PM unit 15) Focus on accurate reflection and translation – not on a graph</p> <ul style="list-style-type: none"> Identify, describe and represent the position of a shape following a reflection Translate a shape using the appropriate language and know that the shape has not changed. 	<p>(PM unit 15) Focus on accurate reflection and translation – on a graph</p> <ul style="list-style-type: none"> Identify coordinates after translation or reflection Identify, describe and represent the position of a shape following a reflection Translate a shape using the appropriate language and know that the shape has not changed. 	<p>(PM unit 15) Focus on accurate multiple steps of reflection and translation – not on a graph</p> <ul style="list-style-type: none"> Identify coordinates after multiple step translation or reflection Identify, describe and represent the position of a shape following a reflection Translate a shape using the appropriate language and know that the shape has not changed.
<p>CC</p>	<p>Art – Cubism, sketching faces Geography – reading coordinates PE – orienteering</p>		

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Statistics (1 week)</p>	<p>(PM unit 4) Focus on timetables</p> <ul style="list-style-type: none"> • Complete, read and interpret information in tables, including timetables. 	<p>(PM unit 4) Focus on line graphs</p> <ul style="list-style-type: none"> • Complete, read and interpret information in tables, including timetables. • Solve comparison, sum and difference problems using information presented in a line graph 	<p>(PM unit 4) Focus on variation of graphs and tables</p> <ul style="list-style-type: none"> • Complete, read and interpret information in tables, including timetables. • Solve comparison, sum and difference problems using information presented in line graphs
<p>CC</p>	<p>Science – Drawing line graphs, reading tables and various other graphs PSHE – creating findings of a decision, creating a bar chart to show outcome Day to day time table</p>		