

Half Term 1 (8 weeks)	Number		Geometry/Measurement/Statistics N.B Where possible link data handling to cross-curricular learning e.g. Science/Geography/PE
	Mental/Oral – on-going skills needed	On-going skills	
<p>recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Multiply and divide numbers mentally drawing upon known facts</p> <p>count forwards or backwards in steps of powers of 10 for any given number up to 1000 000</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>add and subtract numbers mentally with increasingly large numbers</p> <p>Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers</p> <p>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100, 000</p> <p>round decimals with two decimal places to the nearest whole number and to one decimal place</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</p> <p>Recognise and use square numbers and cube numbers and their notation</p>	<p>Consolidate addition and subtraction with 4 digits or more</p> <p>Read, write, order and compare numbers with up to 3 decimal places</p> <p>Convert between different units of metric measure (e.g. km and m; cm and m; cm and mm; g and kg; l and ml)and time</p> <p>Estimate and use inverse operations to check answers to a calculation</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>Apply above to word problems/ investigations: solve number and practical problems that involve all above numbers i.e.</p>	<p>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 (as appropriate – must achieve by end of year)</p> <p>Compare and order fractions whose denominators are all multiples of the same number</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</p>	<p>Identify 3-D shapes, including cubes and other cuboids, from 2D representations</p> <p>Measure and calculate the perimeter of composite rectilinear shapes in cm and m</p> <p>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes</p>

	<p>number half-termly focus/mental and oral</p> <p>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</p>		
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Half Term 2 (7 weeks)	Number		Geometry/Measurement/Statistics
	On-going skills	Half-termly focus	N.B Where possible link data handling to cross-curricular learning e.g. Science/Geography/PE
Mental/Oral – on-going skills needed			
<p>recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Multiply and divide numbers mentally drawing upon known facts</p> <p>count forwards or backwards in steps of powers of 10 for any given number up to 1000 000</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>add and subtract numbers mentally with increasingly large numbers</p> <p>Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers</p> <p>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100, 000</p> <p>round decimals with two decimal places to the nearest whole number and to one decimal place</p>	<p>Consolidate addition and subtraction with 4 digits or more</p> <p>Read, write, order and compare numbers with up to 3 decimal places</p> <p>Convert between different units of metric measure (e.g. km and m; cm and m; cm and mm; g and kg; l and ml)and time</p> <p>Estimate and use inverse operations to check answers to a calculation</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>Apply above to word problems/ investigations: solve number and practical</p>	<p>Add and subtract whole numbers with more than 4 digits, including formal written methods (columnar addition and subtraction)</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$)</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</p>	<p>Convert between different units of measure</p> <p>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</p> <p>Solve comparison, sum and difference problems using information represented in a line graph</p>

<p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</p> <p>Recognise and use square numbers and cube numbers and their notation</p>	<p>problems that involve all above numbers i.e. number half-termly focus/mental and oral</p> <p>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</p>		
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Half Term 3 (6 weeks)	Number		Geometry/Measurement/Statistics
	On-going skills	Half-termly focus	N.B Where possible link data handling to cross-curricular learning e.g. Science/Geography/PE
<p>Mental/Oral – on-going skills needed</p> <p>recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Multiply and divide numbers mentally drawing upon known facts</p> <p>count forwards or backwards in steps of powers of 10 for any given number up to 1000 000</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>add and subtract numbers mentally with increasingly large numbers</p> <p>Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers</p> <p>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100, 000</p> <p>round decimals with two decimal places to the nearest whole number and to one decimal place</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</p>	<p>Consolidate addition and subtraction with 4 digits or more</p> <p>Read, write, order and compare numbers with up to 3 decimal places</p> <p>Convert between different units of metric measure (e.g. km and m; cm and m; cm and mm; g and kg; l and ml)and time</p> <p>Estimate and use inverse operations to check answers to a calculation</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>Apply above to word problems/ investigations: solve number and practical problems that involve</p>	<p>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</p> <p>Solve problems using multiplication and division including their knowledge of factors and multiples, squares and cubes</p> <p>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements greater than 1 as a mixed number e.g. $2/5 + 4/5 = 6/5 = 1 1/5$</p> <p>Add and subtract fractions with the same denominator and denominators that are multiples of the same number</p>	<p>Complete, read and interpret information in tables, including timetables</p> <p>Solve problems converting between units of time</p> <p>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</p> <p>Draw given angles, and measure them in degrees</p>

<p>Recognise and use square numbers and cube numbers and their notation</p>	<p>all above numbers i.e. number half-termly focus/mental and oral</p> <p>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</p>		
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Half Term 4 (5 weeks)	Number		Geometry/Measurement/Statistics
	On-going skills	Half-termly focus	N.B Where possible link data handling to cross-curricular learning e.g. Science/Geography/PE
<p>Mental/Oral – on-going skills needed</p> <p>recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Multiply and divide numbers mentally drawing upon known facts</p> <p>count forwards or backwards in steps of powers of 10 for any given number up to 1000 000</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>add and subtract numbers mentally with increasingly large numbers</p> <p>Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers</p> <p>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100, 000</p> <p>round decimals with two decimal places to the nearest whole number and to one decimal place</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</p>	<p>Consolidate addition and subtraction with 4 digits or more</p> <p>Read, write, order and compare numbers with up to 3 decimal places</p> <p>Convert between different units of metric measure (e.g. km and m; cm and m; cm and mm; g and kg; l and ml)and time</p> <p>Estimate and use inverse operations to check answers to a calculation</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>Apply above to word problems/ investigations: solve number and practical problems that involve all above numbers i.e.</p>	<p>Consolidate multiplying numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two digit numbers</p> <p>compare numbers with the same number of decimal places up to two decimal places</p> <p>round decimals with two decimal places to the nearest whole number and to one decimal place</p> <p>Solve problems involving number up to 3 decimal places</p>	<p>Solve comparison, sum and difference problems using information represented in a line graph</p> <p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles</p> <p>Estimate volume (for example using 1cm cubed blocks to build cuboids, including cubes, and capacity for example using water)</p>

Recognise and use square numbers and cube numbers and their notation	number half-termly focus/mental and oral Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign		
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Half Term 5 (6 weeks)	Number		Geometry/Measurement/Statistics
	On-going skills	Half-termly focus	N.B Where possible link data handling to cross-curricular learning e.g. Science/Geography/PE
<p>Mental/Oral – on-going skills needed</p> <p>recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Multiply and divide numbers mentally drawing upon known facts</p> <p>count forwards or backwards in steps of powers of 10 for any given number up to 1000 000</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>add and subtract numbers mentally with increasingly large numbers</p> <p>Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers</p> <p>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100, 000</p> <p>round decimals with two decimal places to the nearest whole number and to one decimal place</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</p>	<p>Consolidate addition and subtraction with 4 digits or more</p> <p>Read, write, order and compare numbers with up to 3 decimal places</p> <p>Convert between different units of metric measure (e.g. km and m; cm and m; cm and mm; g and kg; l and ml)and time</p> <p>Estimate and use inverse operations to check answers to a calculation</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>Apply above to word problems/ investigations: solve number and practical problems that involve all above numbers i.e.</p>	<p>Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers</p> <p>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</p> <p>Establish whether a number up to 100 is prime and recall prime numbers up to 19</p> <p>Recognise the % symbol and understand that percent relates to 'number of parts per hundred', and write %s as a fraction with denominator of 100, and as decimal</p> <p>Solve problems which require knowing % 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</p>	<p>Complete, read and interpret information in tables, including timetables</p> <p>Solve problems converting between units of time</p> <p>Identify: Angles at a point and one whole turn (360 degrees) Angles at a point on a straight line and $\frac{1}{2}$ a turn (180 degrees) Other multiples of 90 degrees</p> <p>Use the properties of rectangles to deduce related facts and find missing lengths and angles</p>

Recognise and use square numbers and cube numbers and their notation	number half-termly focus/mental and oral Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign		
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Half Term 6 (8 weeks)	Number		Geometry/Measurement/Statistics
	On-going skills	Half-termly focus	N.B Where possible link data handling to cross-curricular learning e.g. Science/Geography/PE
<p>Mental/Oral – on-going skills needed</p> <p>recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Multiply and divide numbers mentally drawing upon known facts</p> <p>count forwards or backwards in steps of powers of 10 for any given number up to 1000 000</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>add and subtract numbers mentally with increasingly large numbers</p> <p>Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers</p> <p>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100, 000</p> <p>round decimals with two decimal places to the nearest whole number and to one decimal place</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</p>	<p>Consolidate addition and subtraction with 4 digits or more</p> <p>Read, write, order and compare numbers with up to 3 decimal places</p> <p>Convert between different units of metric measure (e.g. km and m; cm and m; cm and mm; g and kg; l and ml) and time</p> <p>Estimate and use inverse operations to check answers to a calculation</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>Apply above to word problems/ investigations: solve number and practical problems that involve all above numbers i.e.</p>	<p>Consolidate dividing 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</p> <p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</p> <p>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</p> <p>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates</p>	<p>Solve comparison, sum and difference problems using information represented in a line graph</p> <p>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</p> <p>Consolidate conversions from on-going skills – using teacher assessments</p>

Recognise and use square numbers and cube numbers and their notation	number half-termly focus/mental and oral Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	
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