

Year 1 and 2 Medium Term Map for Mathematics

Autumn Term

Autumn One

Wk.	Maths	Objectives - Key focus points
1	NUMBER PLACE VALUE + GENERAL NUMBER GAMES AWARENESS (3 LESSONS)	<p style="color: red;">Count to 20, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p style="color: red;">Count, read and write numbers to 20 in numerals and words.</p> <p style="color: red;">Given a number, identify one more or one less.</p> <p style="color: red;">Identify and represent numbers using objects and pictorial representations including the number line.</p> <p>Read and write numbers to at least 100 in numerals and in words.</p> <p>Recognise the place value of each digit in a two digit numbers (tens, ones).</p> <p>Identify, represent and estimate numbers using different representations including the number line.</p> <p>Key points - create display in the classroom showing various representations of the teens numbers and some larger numbers including 100 - create with the children and use as a reference and discussion point.</p> <p>Structured and unstructured number lines.</p>
2	NUMBER PLACE VALUE	<p style="color: red;">Count to 20, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p style="color: red;">Count, read and write numbers to 20 in numerals and words.</p> <p style="color: red;">Given a number, identify one more or one less.</p> <p style="color: red;">Identify and represent numbers using objects and pictorial representations including the number line.</p> <p>Read and write numbers to at least 100 in numerals and in words.</p> <p>Recognise the place value of each digit in a two digit numbers (tens, ones).</p> <p>Identify, represent and estimate numbers using different representations including the number line.</p> <p>Key points - create display in the classroom showing various representations of the teens numbers and some larger numbers including 100 - create with the children and use as a reference and discussion point.</p> <p>Structured and unstructured number lines.</p>
3	NUMBER PLACE VALUE (10 LESSONS)	<p style="color: red;">Count to 20, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p style="color: red;">Count, read and write numbers to 20 in numerals and words.</p> <p style="color: red;">Given a number, identify one more or one less.</p> <p style="color: red;">Identify and represent numbers using objects and pictorial representations including the number line.</p> <p>Read and write numbers to at least 100 in numerals and in words.</p> <p>Recognise the place value of each digit in a two digit numbers (tens, ones).</p> <p>Identify, represent and estimate numbers using different representations including the number line.</p> <p>Key points - create display in the classroom showing various representations of the teens numbers and some larger numbers including 100 - create with the children and use as a reference and discussion point.</p> <p>Structured and unstructured number lines.</p>
4	NUMBER ADDITION AND SUBTRACTION	<p style="color: red;">Represent and use number bonds and related subtraction facts within 20.</p> <p style="color: red;">Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p> <p style="color: red;">Add and subtract one digit numbers to 20, including zero.</p> <p>Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two digit number and ones and a two digit number and tens.</p> <p>Show that the addition of numbers can be done in any order (commutative) and subtraction of one number from another cannot - concrete and pictorial demonstration</p> <p>Learning to include and reinforce correct use of language, idea of balance n regards to = signs and that answers / calculations can go on either side.</p>

		<p>Number bonds to 10 support - hands display</p> <p>Use number representation display to support with developing number bond knowledge.</p>
5	<p>NUMBER ADDITION AND SUBTRACTION</p> <p>(10 LESSONS)</p>	<p>Represent and use number bonds and related subtraction facts within 20.</p> <p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p> <p>Add and subtract one digit numbers to 20, including zero.</p> <p>Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two digit number and ones and a two digit number and tens.</p> <p>Show that the addition of numbers can be done in any order (commutative) and subtraction of one number from another cannot - concrete and pictorial demonstration</p> <p>Learning to include and reinforce correct use of language, idea of balance n regards to = signs and that answers / calculations can go on either side.</p> <p>Number bonds to 10 support - hands display</p> <p>Use number representation display to support with developing number bond knowledge.</p>
6	<p>MEASURES – MASS AND CAPACITY</p> <p>(4 LESSONS + 1 REVIEW OF PLACE VALUE AND +/- FLUENCY)</p>	<p>Measure and begin to record mass/weight and capacity.</p> <p>Compare, describe and solve practical problems for mass/ weight : (for example, heavy/ light, heavier than, lighter than), capacity (for example, full/empty, half full, quarter full)</p> <p>Choose and use appropriate standard units to estimate and measure mass (kg/g) and capacity (l/ml) to the nearest appropriate unit using scales and measuring vessels.</p> <p>Compare and order mass and capacity and record the results using < > and =</p> <p>PLACE VALUE OBJECTIVE - Compare and order numbers from 0 up to 100; use <, > and = signs</p> <p>Related to everyday uses and contexts, children to look at how much different things weigh and what that can look like - topic link how much does one of your five a day weigh and what does that look like for different fruit and veg.</p> <p>Possible cooking link</p>
7	<p>MEASURES MONEY</p> <p>(5 LESSONS)</p>	<p>Recognise and know the value of different denominations of coins and notes.</p> <p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money.</p> <p>Link with role play / writing corner for topic - possible farm shop?</p>

Autumn Two

Autumn Two		
Wk.	Maths	
1	<p>NUMBER MULTIPLICATION AND DIVISION</p>	<p>Count to 50 forwards and backwards, beginning with 0 or 1, or from any number.</p> <p>Count, read and write numbers to 50 in numerals.</p> <p>Given a number, identify one more or one less.</p> <p>Count in multiples of twos, fives and tens.</p> <p>Count in steps of 2, 3 and 5 from 0, and in tens from any number forwards and backwards.</p> <p>Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers.</p> <p>Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p> <p>Link commutative back to addition and subtraction - where have we noticed this before?</p> <p>Reinforce patterns in number sequences - both on a number line and in a hundred square.</p>
2	<p>NUMBER MULTIPLICATION AND DIVISION</p>	<p>Count to 50 forwards and backwards, beginning with 0 or 1, or from any number.</p> <p>Count, read and write numbers to 50 in numerals.</p> <p>Given a number, identify one more or one less.</p> <p>Count in multiples of twos, fives and tens.</p>

	(10 LESSONS)	<p>Count in steps of 2, 3 and 5 from 0, and in tens from any number forwards and backwards. Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p> <p>Link commutative back to addition and subtraction - where have we noticed this before? Reinforce patterns in number sequences - both on a number line and in a hundred square.</p>
3	FRACTIONS	<p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p> <p>Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.</p> <p>Links back to counting in equal steps. Multiplication and division Use as opportunity to assess shape knowledge in preparation of geometry unit.</p>
4	FRACTIONS (8 LESSONS)	<p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p> <p>Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.</p> <p>Links back to counting in equal steps. Multiplication and division Use as opportunity to assess shape knowledge in preparation of geometry unit.</p>
	MEASURES TEMPERATURE (2 LESSONS)	<p>Choose and use appropriate standard units to estimate and measure temperature using thermometers.</p> <p>Make connections with science topics as possible.</p>
5	MEASURES TIME (3 LESSONS) 2 LESSONS PROBLEM SOLVING	<p>Sequence events in chronological order using language (for example; before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.) Recognise and use language relating to dates, including days of the week, weeks, months and years.</p> <p>Know the number of minutes in an hour and the number of minutes in a day. Measure and begin to record time (hours, minutes, seconds).</p> <p>Language of time to be consistently built into daily classroom life alongside explicit teaching. Clock clearly visible in the classroom, use of stopwatches modelled in pe. On whiteboard to give time limited challenges across the curriculum.</p> <p>Problem Solving and assessment tasks for two sessions reviewing work completed so far this term to be built in this week.</p>
6	GEOMETRY SHAPE AND SPACE – TO INCLUDE FRACTIONS REINFORCEMENT	<p>Recognise and name common 2d shapes including: (for example, rectangles (including squares), circles and triangles). Recognise and name common 3d shapes, including: (for example, cuboids (including cubes), pyramids and spheres).</p> <p>Identify and describe the properties of 2d shapes, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3d shapes, including the number of edges, vertices and faces. Identify 2d shapes on the surface of a 3d shape, (for example, a circle on a cylinder and a triangle on a pyramid).</p> <p>Use assessment of 2d shapes from fractions work to support starting point for children. Link in with where we find shapes around us, shape hunts etc. Consider possible maths walk down to the village and church to see what evidence of shapes and numbers we can find being used. When finding symmetry link back to finding a half. Review fractions of shape in mental/ oral starters.</p>
7	GEOMETRY	<p>Recognise and name common 2d shapes including: (for example, rectangles (including squares), circles</p>

	SHAPE AND SPACE – TO INCLUDE FRACTIONS REINFORCEMENT (8 LESSONS)	<p>and triangles). Recognise and name common 3d shapes, including: (for example, cuboids (including cubes), pyramids and spheres).</p> <p>Identify and describe the properties of 2d shapes, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3d shapes, including the number of edges, vertices and faces. Identify 2d shapes on the surface of a 3d shape, (for example, a circle on a cylinder and a triangle on a pyramid).</p> <p>Use assessment of 2d shapes from fractions work to support starting point for children. Link in with where we find shapes around us, shape hunts etc. Consider possible maths walk down to the village and church to see what evidence of shapes and numbers we can find being used. When finding symmetry link back to finding a half. Review fractions of shape in mental/ oral starters.</p>
8	PROBLEM SOLVING AND EFFICIENT METHODS	Problems based on the terms work to be used, consider use of twinkl maths mystery tasks which allow children to search for a solution but have to work across concepts and change topics within the same lesson.

Spring One

Wk.	Maths	Objectives - Key focus points
1	Place Value and Statistics	<p>Count to and across 100, forwards and backwards, beginning with 1 or 0, or from any given number. Count, read and write numbers to 100 in numerals. Use the language of equal to, more than, less than, most, least</p> <p>Compare and order numbers from 0 up to 100 and use less than, greater than and equals signs. Count in steps of 2, 3 and 5 from 0, forwards and backwards. Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p>
2	Place Value and Statistics (7 days)	<p>Count to and across 100, forwards and backwards, beginning with 1 or 0, or from any given number. Count, read and write numbers to 100 in numerals. Use the language of equal to, more than, less than, most, least</p> <p>Compare and order numbers from 0 up to 100 and use less than, greater than and equals signs. Count in steps of 2, 3 and 5 from 0, forwards and backwards. Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p>
3	Number Subtraction and Addition	<p>Read, write and interpret mathematical statements involving addition, subtraction and equal signs. Add and subtract one-digit and two-digit numbers to 20, including zero. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.</p> <p>Solve problems with addition and subtraction - using concrete and pictorial representations, including those involving numbers, quantities and measures and applying their increasing knowledge of mental and written methods. Show that addition can be done in any order commutative and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p>

4	Number Subtraction and Addition (10 days)	<p>Read, write and interpret mathematical statements involving addition, subtraction and equal signs.</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero.</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.</p> <p>Solve problems with addition and subtraction - using concrete and pictorial representations, including those involving numbers, quantities and measures and applying their increasing knowledge of mental and written methods.</p> <p>Show that addition can be done in any order commutative and subtraction of one number from another cannot.</p> <p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p>
5	Measures Time (5 days)	<p>Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</p> <p>Tell and write the time to five minutes, including quarter past / to the hour and draw the hands on a clock face to show these times.</p>
6	Measures Length and Height (5 days)	<p>Measure and begin to record the following - lengths and heights.</p> <p>Compare, describe and solve practical problems for lengths and heights.</p> <p>Choose and use appropriate standard units to estimate and measure length and height to the nearest appropriate unit using rulers.</p> <p>Compare and order length and height and record the results using < > and =</p>
7	Number Place Value (5 days)	<p>CONSOLIDATION AND REVIEW OF HALF TERM CONCEPTS</p> <p>Mastery of place value concepts - consideration of number patterns and sequences.</p> <p>As a above for Year Two also</p>

Spring Two

Wk.	Maths	
1	Number Division and Multiplication	<p>Count in multiples of 2, 5 and 10. including from non multiples.</p> <p>Solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the correct symbols.</p> <p>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context.</p>
2	Number Division and Multiplication (10 days)	<p>Count in multiples of 2, 5 and 10. including from non multiples.</p> <p>Solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the correct symbols.</p> <p>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context.</p>
3	Fractions	<p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</p> <p>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p> <p>Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity.</p> <p>Write simple fractions for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p>
4	Fractions	<p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</p> <p>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p>

	(8 days)	Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity. Write simple fractions for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
	Measures Money	Recognise and know the value of different denominations of coins and notes. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
5	Measures Money (7 days)	Recognise and know the value of different denominations of coins and notes. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
6	Geometry Position and Direction (5 days)	Describe position, direction and movement, including whole, half, quarter and three-quarter turns. Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for a quarter, half and three-quarter turns (clockwise and anti-clockwise)

Summer One

Wk.	Maths	Objectives - Key focus points
1	Number and Place Value	Count in multiples of two, five and ten. Given a number identify one more and one less Identify and represent numbers using objects and pictorial images including the number line, and use the language of equal to, more than, less than, most and least Use place value and number facts to solve problems Count in steps of 2, 3 and 5 from 0 and in tens from any given number forwards and backwards - linking with adding and subtracting ten from a given number.
2	Number Division and Multiplication	Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. Show that multiplication of two numbers can be done in any order and that division cannot Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context.
3	Geometry - Position and Direction	Describe position, direction and movement, including whole, half, quarter and three quarter turns - linking language with fractions Order and arrange combinations of mathematical objects in patterns and sequences Use mathematical language to describe position, direction and movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three quarter turns (clockwise and anticlockwise)
4	Number - Addition and Subtraction	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems (vary location of = sign) Add and subtract numbers using concrete objects, pictorial representations, and mentally including two two-digit numbers and adding three one-digit numbers together.
5	Time	Tell the time to the hour and half past the hour and draw hands on a clock face accurately to show these times. Compare and sequence intervals of time. Tell and write the time to five minutes, including quarter past // to the hour and draw hands on a clock face to show these times.

Summer Two

Wk.	Maths	
1	Time	<p>Tell the time to the hour and half past the hour and draw hands on a clock face accurately to show these times.</p> <p>Compare and sequence intervals of time. Tell and write the time to five minutes, including quarter past // to the hour and draw hands on a clock face to show these times</p>
2	Geometry - Shape and Space	<p>Recognise and name common 2d and 3d shapes</p> <p>Identify and describe the properties of 3d shapes including the number of edges, vertices and faces</p> <p>Compare and sort common 2d and 3d shapes and everyday objects.</p>
3	Mathematical Investigations	<p>Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems (vary location of = sign)</p> <p>Use place value and number facts to solve problems Application of knowledge and skills across the curriculum.</p>
4	Mathematical Investigations Including science links and statistics	<p>Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems (vary location of = sign)</p> <p>Ask and answer questions about totalling and comparing data. Use place value and number facts to solve problems Application of knowledge and skills across the curriculum.</p>
5	Consolidation and Areas of Review from analysis of NCTs	<p>Following in school analysis of the strengths and weaknesses of the children's performance in the NCTs teaching to focus on areas of greater challenge and securing a strong grounding in place value and the four number operations for all children.</p>
6	Consolidation and Areas of Review from analysis of NCTs	<p>Following in school analysis of the strengths and weaknesses of the children's performance in the NCTs teaching to focus on areas of greater challenge and securing a strong grounding in place value and the four number operations for all children.</p>
7	Measures - capacity and volume	<p>Measure and begin to record the following - capacity and volume</p> <p>Choose and use appropriate standard units to estimate and measure capacity and volume, compare and order volumes and capacity.</p>

Year 3 and 4 Medium Term Map for Mathematics

Autumn Term

Wk.	Maths	Objectives and Key focus points
1	NUMBER AND PLACE VALUE	<p>Read and write numbers up to 1000 in numerals and in words. Identify, represent and estimate numbers using different representations. Recognise the place value of each digit in a three digit number. Order and compare numbers to 1000. Find 10 or 100 more or less than a given number.</p> <p>Recognise the place value of each digit in a 4 digit number. Order and compare numbers beyond 1000.</p>

		<p>Find 1000 more or less than a given number. Round any number to the nearest 10, 100 or 1000.</p> <p>READ ROMAN NUMERALS TO 100 (I TO C) and know that over time, the numeral system changed to include the concept of zero and place value.- to be taught within history topic</p>
2	NUMBER AND PLACE VALUE	<p>Read and write numbers up to 1000 in numerals and in words. Identify, represent and estimate numbers using different representations. Recognise the place value of each digit in a three digit number. Order and compare numbers to 1000. Find 10 or 100 more or less than a given number.</p> <p>Recognise the place value of each digit in a 4 digit number. Order and compare numbers beyond 1000. Find 1000 more or less than a given number. Round any number to the nearest 10, 100 or 1000.</p> <p>READ ROMAN NUMERALS TO 100 (I TO C) and know that over time, the numeral system changed to include the concept of zero and place value.- to be taught within history topic</p>
3	NUMBER AND PLACE VALUE (13 LESSONS)	<p>Read and write numbers up to 1000 in numerals and in words. Identify, represent and estimate numbers using different representations. Recognise the place value of each digit in a three digit number. Order and compare numbers to 1000. Find 10 or 100 more or less than a given number.</p> <p>Recognise the place value of each digit in a 4 digit number. Order and compare numbers beyond 1000. Find 1000 more or less than a given number. Round any number to the nearest 10, 100 or 1000.</p> <p>READ ROMAN NUMERALS TO 100 (I TO C) and know that over time, the numeral system changed to include the concept of zero and place value.- to be taught within history topic</p>
4	NUMBER ADDITION AND SUBTRACTION	<p>Add and subtract numbers mentally, including : a 3 digit number and ones; a 3 digit number and tens; a three digit number and hundreds. Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction. Estimate the answer to a calculation and use inverse operations to check answers. Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p> <p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Estimate and use inverse operations to check answers to a calculation. Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.</p> <p>Estimation to be put in appropriate contexts to allow children to see a reason for estimating even when they can just calculate the answer - why is it useful - when do adults use it.</p>
5	NUMBER ADDITION AND SUBTRACTION (9 LESSONS)	<p>Add and subtract numbers mentally, including : a 3 digit number and ones; a 3 digit number and tens; a three digit number and hundreds. Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction. Estimate the answer to a calculation and use inverse operations to check answers. Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p> <p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Estimate and use inverse operations to check answers to a calculation. Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.</p>

		Estimation to be put in appropriate contexts to allow children to see a reason for estimating even when they can just calculate the answer - why is it useful - when do adults use it.
6	NUMBER MULTIPLICATION AND DIVISION	<p>Count from 0 in multiples of 4 and 8. Recall and use multiplication and division facts for 3,4 and 8 multiplication tables. Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including two digit numbers times one digit numbers, using mental and progressing to formal written methods.</p> <p>Count in multiples of 6,7 and 9 Recall and use multiplication and division facts for multiplication tables up to 12 x 12. Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</p> <p>TIMES TABLES PRACTICE TO BE A REGULAR PART OF REGISTRATION WORK AND CONSISTENTLY WORKED ON ACROSS THE TERM.</p>
7	NUMBER MULTIPLICATION AND DIVISION (10 LESSONS + ASSESSMENT REVIEW)	<p>Count from 0 in multiples of 4 and 8. Recall and use multiplication and division facts for 3,4 and 8 multiplication tables. Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including two digit numbers times one digit numbers, using mental and progressing to formal written methods.</p> <p>Count in multiples of 6,7 and 9 Recall and use multiplication and division facts for multiplication tables up to 12 x 12. Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</p> <p>TIMES TABLES PRACTICE TO BE A REGULAR PART OF REGISTRATION WORK AND CONSISTENTLY WORKED ON ACROSS THE TERM.</p>

Wk.	Maths	Objectives and key focus points
1	MEASURES LENGTH (5 LESSONS)	<p>Measure, compare, add and subtract: lengths (m/cm/mm). Continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed and simple equivalents of mixed units.</p> <p>Convert between different units of measure e.g., km to m LOTS OF HANDS ON PRACTICAL WORK. LINK WITH POSSIBLE DT, SCIENCE TOPICS - INCORPORATING ADDITION/ SUBTRACTION AND PLACE VALUE KNOWLEGE</p>
2	NUMBER MULTIPLICATION AND DIVISION (5 LESSONS)	<p>Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including two digit numbers times one digit numbers, using mental and progressing to formal written methods. Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects and connecting to m objectives.</p> <p>Multiply two digit and three digit numbers by a one digit number using formal written layout. Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected m objects.</p>

		Reinforce tables knowledge and related division facts during mental / oral starters in preparation of fractions work
3	NUMBER FRACTIONS	<p>Recognise and use fractions as numbers: unit fractions and non unit fractions with small denominators.</p> <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p> <p>Recognise and show, using diagrams, equivalent fractions with small denominators.</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>Recognise and show diagrams, families of common equivalent fractions.</p> <p>Lots of pictorial images - bar modelling to support the understanding of fractions - finding fractions of shapes - review shape knowledge at this point to.</p>
4	NUMBER FRACTIONS (10 LESSONS)	<p>Recognise and use fractions as numbers: unit fractions and non unit fractions with small denominators.</p> <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p> <p>Recognise and show, using diagrams, equivalent fractions with small denominators.</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>Recognise and show diagrams, families of common equivalent fractions.</p> <p>Lots of pictorial images - bar modelling to support the understanding of fractions - finding fractions of shapes - review shape knowledge at this point to.</p>
5	MEASURES TIME	<p>Tell and write the time from an analogue clock, including using Roman numerals and 12 hour and 24 hr clocks.</p> <p>Estimate and read time with increasing accuracy to the nearest minute.</p> <p>Record and compare time in terms of seconds, minutes and hours.</p> <p>Read, write and convert time between analogue and digital 12 hr and 24 hr clocks.</p> <p>Convert between different units of measure e.g. hour to minute.</p> <p>Time display to be visible in the classroom, time to be continuous talked about during the year, across all lessons, use of stopwatches, timers etc.</p>
6	MEASURES TIME (8 LESSONS + ASSESSMENT REVIEW)	<p>Tell and write the time from an analogue clock, including using Roman numerals and 12 hour and 24 hr clocks.</p> <p>Estimate and read time with increasing accuracy to the nearest minute.</p> <p>Record and compare time in terms of seconds, minutes and hours.</p> <p>Read, write and convert time between analogue and digital 12 hr and 24 hr clocks.</p> <p>Convert between different units of measure e.g. hour to minute.</p> <p>Time display to be visible in the classroom, time to be continuous talked about during the year, across all lessons, use of stopwatches, timers etc.</p>
7	GEOMETRY – PROPERTIES OF SHAPE (5 LESSONS)	<p>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</p> <p>Draw 2d shapes and make 3d shapes using modelling materials; recognise 3d shapes in different orientations and describe them.</p> <p>Identify lines of symmetry in 2d shapes presented in different orientations</p> <p>Complete a simple symmetric figure with respect to a specific line of symmetry.</p> <p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</p>
8	GEOMETRY CONTINUED	<p>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</p> <p>Draw 2d shapes and make 3d shapes using modelling materials; recognise 3d shapes in different orientations and describe them.</p> <p>Identify lines of symmetry in 2d shapes presented in different orientations</p> <p>Complete a simple symmetric figure with respect to a specific line of symmetry.</p>

Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.

Spring One

Wk.	Maths	Objectives - Key focus points
1	Place Value	<p>Recognise the place value of each digit in a three digit number. Find ten more or less than a given number. Count in multiples of 10 and 100 Read and write numbers up to 1000 in numerals and words.</p> <p>Recognise the place value in a four digit number. Multiply and divide numbers by 10, 100 and 1000 and understand the effect. Find 1000 more or less than a given number. Find the effects of dividing one and two digit numbers by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.</p>
2	Shape and Space - Geometry	<p>Draw and recognise the properties of 2d shapes. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</p> <p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Complete a simple symmetric figure with respect to a line of symmetry. Identify lines of symmetry in 2d shapes presented in different orientations.</p>
3	Measures - Money including addition and subtraction	<p>Add and subtract amount of money to give change, using both £ and p in practical contexts.</p> <p>Estimate, compare and calculate different measures including money in pounds and pence.</p>
4	Number Addition and Subtraction	<p>Add and subtract numbers with up to three digits, using formal methods of columnar addition and subtraction. Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction.</p> <p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Solve addition and subtraction two-step problems in contexts, deciding which operations to use and why. Solve simple money problems involving decimals to two decimal places.</p>
5	Fractions - including decimals for Year 4	<p>Count up and down in tenths, recognise that tenths arise from dividing an object into 10 equal parts and in dividing one digit numbers or quantities by 10. Add and subtract fractions with the same denominator within one whole. Compare and order unit fractions, and fractions with the same denominator.</p> <p>Count up and down in hundredths and recognise that hundredths arise when dividing an object by one hundred and by dividing tenths by ten. Add and subtract fractions with the same denominator. Recognise and write decimal equivalents of any number of tenths or hundredths. Recognise and write decimal equivalents.</p>
6	Fractions - including decimals for Year 4	<p>Count up and down in tenths, recognise that tenths arise from dividing an object into 10 equal parts and in dividing one digit numbers or quantities by 10. Add and subtract fractions with the same denominator within one whole. Compare and order unit fractions, and fractions with the same denominator.</p> <p>Count up and down in hundredths and recognise that hundredths arise when dividing an object by one hundred and by dividing tenths by ten. Add and subtract fractions with the same denominator. Recognise and write decimal equivalents of any number of tenths or hundredths. Recognise and write decimal equivalents.</p>
7	Number Multiplication and Division	<p>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two digit numbers by one digit numbers, using mental methods and progressing to formal written methods.</p>

		Multiply two-digit numbers by a one-digit number using formal written layout. Solve problems involving multiplying and adding, using the distributive law to multiply two digits by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
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Spring Two

Wk.	Maths	
1	Statistics	<p>Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions (for example How many more? and How many fewer?) using information presented in scaled bar charts and pictograms and tables.</p> <p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p>
2	Measures - Mass and Capacity - Yr3 Geometry - Position and Direction - Yr4	<p>Measure, compare, add and subtract mass, and capacity/volume.</p> <p>Describe positions on a 2d grid as co-ordinates in the first quadrant. Describe movements between positions as translations of a given unit to the left/right and up/down. Plot specified points and draw sides to complete a given polygon.</p>
3	Number Place Value	<p>Count from 0 in multiples of 4,8,50 and 100. Compare and order numbers up to 1000. Find 10 more or less than a given number.</p> <p>Round any number to the nearest 10, 100 or 1000. 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.</p>
4	Measures Length, Perimeter and Area	<p>Measure, compare, add and subtract lengths. Measure the perimeter of simple 2d shapes.</p> <p>Convert between different units of measure. Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. Find the area of rectilinear shapes by counting squares.</p>
5	Measures Length, Perimeter and Area	<p>Measure, compare, add and subtract lengths. Measure the perimeter of simple 2d shapes.</p> <p>Convert between different units of measure. Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. Find the area of rectilinear shapes by counting squares.</p>
6	Geometry - Angles	<p>Recognise angles as a property of a shape or a description of a turn. Identify right angles, recognise that two right angles make a half turn, three make a three quarters of a turn and four make a complete turn; identify whether angles are greater than or less than a right angle.</p> <p>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</p>

Summer One

Wk.	Maths	Objectives - Key focus points
1	Number - Place Value	<p>Find 10 or 100 more or less than a given number Solve number problems and practical problems involving these ideas.</p> <p>Count backwards through zero to include negative numbers. Find 1000 more or less than a given number.</p>
2	Number -	Add and subtract numbers with up to three digits using formal written methods of columnar

	Subtraction and Addition	<p>addition and subtraction. Solve problems including missing number problems using number facts. place value and more complex addition and subtraction.</p> <p>Estimate and use inverse operations to check answers to a calculation Solve addition and subtraction two step problems in contexts, deciding which operations to use and why.</p>
3	Number - Subtraction and Addition Measures - including perimeter	<p>Add and subtract numbers with up to three digits using formal written methods of columnar addition and subtraction. Solve problems including missing number problems using number facts. place value and more complex addition and subtraction. Measure the perimeter of simple 2d shapes</p> <p>Estimate and use inverse operations to check answers to a calculation Solve addition and subtraction two step problems in contexts, deciding which operations to use and why. Measure and calculate the perimeter of a rectilinear shape in cm and m</p>
4	Measures - Money - reinforcing addition and subtraction and multi step problems	<p>Add and subtract amounts of money to give change, using both pound and pence notation in practical contexts.</p> <p>Estimate, compare and calculate different measures including money in pounds and pence. Finding fractions of quantities. Solve addition and subtraction two step problems in contexts, deciding which operations to use and why.</p>
5	Measures - Time	<p>Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events</p> <p>Solve problems converting from hours to minutes, minutes to seconds, years to months and weeks to days.</p>

Summer Two

Summer Two		
Wk.	Maths	
1	Number - Multiplication and Division	<p>Solve problems including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</p> <p>Solve problems involving multiplication and adding, including using the distributive law to multiply two digits by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</p>
2	Number Multiplication and Division - Measures - Area and Perimeter	<p>Solve problems including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</p> <p>Solve problems involving multiplication and adding, including using the distributive law to multiply two digits by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. Finding the area of rectilinear shapes.</p>
3	Number - Fractions	<p>Recognise and use fractions as numbers, unit fractions and non unit fractions with small denominators. Add and subtract fractions with the same denominator within one whole. Recognise, find and write fractions of a discrete set of objects</p> <p>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 Solve simple measure and money problems involving fractions and decimals to two d.p</p>
4	Number Fractions -	<p>Recognise and use fractions as numbers, unit fractions and non unit fractions with small denominators. Add and subtract fractions with the same denominator within one whole. Recognise, find and write fractions of a discrete set of objects</p>

		<p>Round decimals with one decimal place to the nearest whole number.</p> <p>Compare numbers with the same number of decimal places up to two decimal places</p> <p>Solve simple measure and money problems involving fractions and decimals to two d.p</p>
5	Statistics	<p>Interpret and present data using bar charts, pictograms and tables.</p> <p>Solve one and two step questions using information presented in scaled bar charts, pictograms and tables.</p> <p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p>
6	Geometry - Position and Direction	<p>Recognise angles as a property of a shape or a description of a turn.</p> <p>Identify right angles, recognise that two right angles make a half turn, three make three quarters of a turn and four a complete turn, identify whether angles are greater than or less than a right angle.</p> <p>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</p>
7	Consolidation and Review	Following analysis of tracking documentation - highlighting strengths and weaknesses work to be focus and tailored to resolving areas of greater challenge.

Year 5 and 6 Medium Term Map for Mathematics

Autumn Term

Autumn One		
Wk.	Maths	Objectives and key focus points
1	NUMBER PLACE VALUE	<p>Read, write, order and compare numbers to at least 1000000 and determine the value of each digit.</p> <p>Count forwards or backwards in steps of powers of 10 for any given number up to 1000000.</p> <p>Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000.</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero.</p> <p>Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.</p> <p>Round any whole number to a required degree of accuracy.</p> <p>Use negative numbers in context and calculate intervals across zero.</p> <p>Links with science and topic theme of science - comparing planets, distances etc.</p>
2	NUMBER PLACE VALUE (7 LESSONS)	<p>Read, write, order and compare numbers to at least 1000000 and determine the value of each digit.</p> <p>Count forwards or backwards in steps of powers of 10 for any given number up to 1000000.</p> <p>Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000.</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero.</p> <p>Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.</p> <p>Round any whole number to a required degree of accuracy.</p> <p>Use negative numbers in context and calculate intervals across zero.</p> <p>Links with science and topic theme of science - comparing planets, distances etc.</p>
3	NUMBER ADDITION AND SUBTRACTION (5 LESSONS)	<p>Add and subtract numbers mentally with increasingly large numbers.</p> <p>Add and subtract whole numbers with more than 4 digits, including using formal written methods.</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</p> <p>Solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why.</p>

		<p>Perform mental calculations, including with mixed operations and large numbers. Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p> <p>Remind and check children understand commutativity and the use of inverse operations. Looking at estimation in real life contexts - baskets of shopping - do you have enough money?</p>
4	NUMBER MULTIPLICATION AND DIVISION	<p>Multiply and divide numbers mentally drawing upon known facts. Multiply and divide whole numbers by 10, 100 and 1000. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Multiply numbers up to four digits by a one or two digit number using formal written methods, including long multiplication for 2 digit numbers.</p> <p>Identify common factors, common multiples and prime numbers. Multiply multi-digit number up to 4 digits by a 2 digit number using the formal written method of long multiplication.</p> <p>Multiplication and division facts up to 12 x 12 to be consistently reviewed across all concepts and on a weekly basis.</p>
5	NUMBER MULTIPLICATION AND DIVISION (7 LESSONS)	<p>Multiply and divide numbers mentally drawing upon known facts. Multiply and divide whole numbers by 10, 100 and 1000. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Multiply numbers up to four digits by a one or two digit number using formal written methods, including long multiplication for 2 digit numbers.</p> <p>Identify common factors, common multiples and prime numbers. Multiply multi-digit number up to 4 digits by a 2 digit number using the formal written method of long multiplication.</p> <p>Multiplication and division facts up to 12 x 12 to be consistently reviewed across all concepts and on a weekly basis.</p>
	YR 5 CONT X / ÷ YR 6 ALGEBRA	<p>Recognise and use square numbers and cubed numbers and the correct notation. 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 to 19.</p> <p>Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of variables.</p>
6	YR 5 CONT X / ÷ YR 6 ALGEBRA (7 LESSONS)	<p>Recognise and use square numbers and cubed numbers and the correct notation. 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 to 19.</p> <p>Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of variables.</p>
7	MEASURES PERIMETER AND AREA (5	<p>Measure and calculate the perimeter of composite rectilinear shapes in cm and m. Calculate and compare the area of rectangles (including squares); and including using standard units, cm², m² estimate the area of irregular shapes.</p> <p>Recognise that shapes with the same area can have different perimeters and vice versa. Recognise when it is possible to use formulae for area of shapes.</p>

LESSONS)	Calculate the area of parallelograms and triangles. Use area to assess current knowledge of 2d shapes and make connections with formulae for area with algebra work.
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Autumn Two		
Wk.	Maths	Objectives and key focus points
1	NUMBER FRACTIONS	<p>Compare and order fractions whose denominators are 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 another and write mathematical statements >1 as a mixed number. Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</p> <p>Compare and order fractions whose denominators are multiples of the same number. Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions.</p> <p>Key focus - convert between mixed numbers and improper fractions - highlighted as a focus area within learning ladders.</p>
2	NUMBER FRACTIONS (10 LESSONS)	<p>Compare and order fractions whose denominators are 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 another and write mathematical statements >1 as a mixed number. Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</p> <p>Compare and order fractions whose denominators are multiples of the same number. Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions.</p> <p>Key focus - convert between mixed numbers and improper fractions - highlighted as a focus area within learning ladders.</p>
3	NUMBER DECIMALS AND PERCENTAGES	<p>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. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. Round decimals with two decimal places to the nearest whole number and to one decimal place. Solve problems involving numbers up to three decimal places.</p> <p>Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1000 giving answers up to 3 decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. Multiply one digit numbers with up to 2 decimal places by whole numbers.</p>

4	NUMBER DECIMALS AND PERCENTA GES (10 LESSONS)	<p>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. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. Round decimals with two decimal places to the nearest whole number and to one decimal place. Solve problems involving numbers up to three decimal places.</p> <p>Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1000 giving answers up to 3 decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. Multiply one digit numbers with up to 2 decimal places by whole numbers.</p>
5	STATISTIC S (5 LESSONS)	<p>Solve comparison, sum and difference problems using information presented in a line graph.</p> <p>Interpret and construct line graphs and use these to solve problems. Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</p> <p>Link and expand teaching across science / topic theme of space for this term. Cross curricular display - how scientists also use mathematics</p>
6	MEASURE S CONVERTI NG UNITS (5 LESSONS)	<p>Convert between different units of metric measure (for example, km and m; cm and m; cm and mm; g and kg; l and ml). Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</p> <p>Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp. Convert between miles and kilometres.</p> <p>Links with science, geography and D.T where possible.</p>
7	GEOMETR Y – PROPERTI ES OF SHAPES	<p>Identify 3d shapes, including cubes and cuboids, from 2d representations. Use the properties of rectangles to deduce related facts and finding missing angles. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p> <p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.</p>
8	GEOMETR Y – PROPERTI ES OF SHAPES (8 LESSONS)	<p>Identify 3d shapes, including cubes and cuboids, from 2d representations. Use the properties of rectangles to deduce related facts and finding missing angles. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p> <p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.</p>

Spring One

Wk.	Maths	Objectives - Key focus points
1	Number and Place Value	<p>Read Roman numerals to 1000(M) and recognise years written in Roman Numerals Read, write and order numbers to at least 1000000 and determine the value of each digit.</p> <p>Read, write and order numbers to at least 1000000 and determine the value of each digit. Round any whole number to a required degree of accuracy.</p>
2	Multiplication and Division	<p>Divide numbers up to 4 digits by a one-digit number using formal written method of short division and interpret remainders appropriately for the context. Multiply and divide numbers mentally drawing upon known facts. Multiply numbers up to 4 digits by a one or two-digit number using a formal method including long multiplication for two digit numbers.</p> <p>Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal method of long multiplication.</p>

		<p>Divide numbers up to 4-digits by a two-digit 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.</p> <p>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.</p>
3	<p>Multiplication and Division</p> <p>(10 days)</p>	<p>Divide numbers up to 4 digits by a one-digit number using formal written method of short division and interpret remainders appropriately for the context.</p> <p>Multiply and divide numbers mentally drawing upon known facts.</p> <p>Multiply numbers up to 4 digits by a one or two-digit number using a formal method including long multiplication for two digit numbers.</p> <p>Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal method of long multiplication.</p> <p>Divide numbers up to 4-digits by a two-digit 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.</p> <p>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.</p>
4	Place Value	
5	Fractions / Decimals and Percentages	<p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p> <p>Read and write decimal numbers as fractions.</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</p> <p>Recognise the per cent symbol and understand that percent relates to 'number of parts per hundred and write percentages as a fraction with denominator 100, and as a decimal.</p> <p>Solve problems which require knowing percentage and decimal equivalents of and those fractions with a denominator of a multiple of 10 or 25.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form.</p> <p>Divide proper fractions by whole numbers.</p> <p>Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.</p> <p>Solve problems involving the calculation of percentages and the use of percentages for comparison.</p>
6	Fractions / Decimals and Percentages	<p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p> <p>Read and write decimal numbers as fractions.</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</p> <p>Recognise the per cent symbol and understand that percent relates to 'number of parts per hundred and write percentages as a fraction with denominator 100, and as a decimal.</p> <p>Solve problems which require knowing percentage and decimal equivalents of and those fractions with a denominator of a multiple of 10 or 25.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form.</p> <p>Divide proper fractions by whole numbers.</p> <p>Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.</p> <p>Solve problems involving the calculation of percentages and the use of percentages for comparison.</p>
7	Consolidation	Assessment and review of all concepts covered so far this year and completion of end of year mocks.
Spring Two		
Wk.	Maths	
1	Fractions /	Multiply proper fractions and mixed numbers by whole numbers, supported by materials

	Decimals and Percentages	<p>and diagrams. Read and write decimal numbers as fractions. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. Recognise the per cent symbol and understand that percent 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 and those fractions with a denominator of a multiple of 10 or 25.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form. Divide proper fractions by whole numbers. Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. Solve problems involving the calculation of percentages and the use of percentages for comparison.</p>
2	Measures - Converting Measures	<p>Solve problems involving converting between units of time. Use all four number operations to solve problems involving measures, using decimal notation, including scaling.</p> <p>Solve problems involving the calculation and conversion of units of measures, using decimal notation up to three decimal places where appropriate. Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit and vice versa, using decimal notation to up to three decimal places.</p>
3	Geometry - Shape	<p>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 a turn (total 180) Other multiples of 90 degrees.</p> <p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite and finding missing angles.</p>
4	Geometry - Position and Direction	<p>Identify, describe and represent the position of a shape following a reflection or translation, using appropriate language and know that the shape has not changed.</p> <p>Describe positions on the full co-ordinate grid (all four quadrants) Draw and translate simple shapes on the co-ordinate plane and reflect them in the axes. Solve problems involving similar shapes where the scale factor is known or can be found.</p>
5	Number Addition and Subtraction	<p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</p>
6	Ratio	<p>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. Solve problems involving similar shapes where the scale factor is known or can be found.</p>

Summer One

Wk.	Maths	Objectives - Key focus points
1	Measures - perimeter / area / volume - incorporating converting	<p>Use the properties of rectangles to deduce related facts and find missing lengths and angles. Estimate volume and capacity Convert between different units of metric measure.</p> <p>Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes.</p>

	units	Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units.
2	Statistics	Complete, read and interpret information in tables, including timetables. Calculate and interpret then mean as an average.
3		NCT Week
4	Mathematical Investigations	Solve number problems and practical problems involving year 5 place value concepts. Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. Solve number and practical problems involving year 6 place value concepts. Solve problems involving addition, subtraction, multiplication and division. Perform mental calculations, including mixed operations and large numbers.
5	Mathematical Investigations	Solve number problems and practical problems involving year 5 place value concepts. Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. Solve number and practical problems involving year 6 place value concepts. Solve problems involving addition, subtraction, multiplication and division. Perform mental calculations, including mixed operations and large numbers.

Summer Two		
Wk.	Maths	
1	Measures - converting units	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. Use read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit and vice versa, using decimals to up to three decimal places.
2	Statistics - working within and alongside science skills	Solve comparison, sum and difference problems using information presented in a line graph. Complete, read and interpret information in tables, including timetables. Interpret and construct pie charts and line graphs and use these to solve problems.
3	Geometry - properties of shapes	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. Identify 3d shapes including cubes and other cuboids from 2d representations. Draw 2d shapes using given dimensions and angles. Recognise, describe and build simple 3d shapes including making nets.
4	Fractions / Decimals and Percentages - securing next step knowledge and grounding for Year 5	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Read and write decimal numbers as fractions Solve problems which require knowing percentage and decimal equivalents of those fractions with a denominator of a multiple of 10 or 25. Multiply simple pairs of proper fractions, writing the answer in the simplest form. Divide proper fractions by whole numbers. Associate a fraction with division and calculate decimal fraction equivalent for a simple fraction.
5	Fractions / Decimals and Percentages - securing next step knowledge and grounding for Year 5	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Read and write decimal numbers as fractions Solve problems which require knowing percentage and decimal equivalents of those fractions with a denominator of a multiple of 10 or 25. Multiply simple pairs of proper fractions, writing the answer in the simplest form. Divide proper fractions by whole numbers. Associate a fraction with division and calculate decimal fraction equivalent for a simple fraction.

6	Number and Problem Solving - linking with addition / subtraction / multiplication and division.	Following a review using maths tracking documents and teacher assessment children to consolidate and apply their knowledge and skills through problem solving tasks and investigations based on areas of weakness with support to develop deeper knowledge and understanding.
7	Number and Problem Solving - linking with addition / subtraction / multiplication and division.	Following a review using maths tracking documents and teacher assessment children to consolidate and apply their knowledge and skills through problem solving tasks and investigations based on areas of weakness with support to develop deeper knowledge and understanding.