

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Week 1	<p>Number bonds to 100.</p> <p>Read, write, compare and order 5-digit numbers, understanding the place value and using < and > signs; add and subtract multiples of 10, 100 and 1000 to and from 5-digit numbers; use written addition to add two 4-digit numbers; work systematically to spot patterns</p> <ul style="list-style-type: none"> Dienes Place value charts Place value counters 	<p>Times tables 6 and 9 and their factors</p> <p>Recognise which numbers are divisible by 2, 3, 4, 5, 6, 9 and 25 and identify multiples; find factors; recording results systematically and finding all factors of a given number; compare and place fractions on a line; find equivalent fractions and reduce them to their simplest form</p> <ul style="list-style-type: none"> Multiplication chart Fraction wall 	<p>Reading and writing numbers in digits and words</p> <p>Read, write and order numbers with up to 6 digits and understand the place value of each digit; place 6-digit numbers on a number line and find numbers between; solve place-value additions and subtractions with 6-digit numbers; understand place value in decimal numbers as tenths and hundredths; multiply and divide by 10/100/1000 using a place-value grid; understand place value in decimal numbers to 2-decimal places; place decimal numbers on a line; round two-place decimal numbers to nearest tenth and whole number; say the number a tenth or a hundredth more</p> <ul style="list-style-type: none"> Place value chart Place value counters Number lines 	<p>Times tables - 11 and 12</p> <p>Use a written method (grid) to multiply pairs of 2-digit numbers; use short division to divide 3-digit numbers by 1-digit numbers, including those which leave a remainder</p> <ul style="list-style-type: none"> Multiplication grid 	<p>Rounding decimals to the nearest whole number</p> <p>Add mentally 2-place decimal numbers in the context of money using rounding; add several small amounts of money using mental methods; mentally subtract amounts of money including giving change; calculate the difference between two amounts using counting up; solve word problems, including 2-step problems, choosing an appropriate method</p> <ul style="list-style-type: none"> Coins Number line Place value grid 	<p>Identify factors and multiples, find factor pairs; revise equivalent fractions; compare and order fractions with related denominators; add fractions with same or related denominators, then convert answer into a mixed number; subtract fractions with same and related denominators, revise multiplying fractions by whole numbers</p> <ul style="list-style-type: none"> Fractions pieces Cuisenaire rods Multi-link Multiplication grid
Week 2	<p>Doubling and halving 2 and 3 digit numbers</p> <p>Add and subtract 2- 3- and 4-digit numbers mentally; choose a strategy for solving mental additions or subtractions; solve word problem</p> <ul style="list-style-type: none"> Place value charts 100-square 	<p>Times table as division (up to 12x) e.g. $__ \times 9 = 72 / 72 \div __$</p> <p>Use mental strategies to multiply and divide multiples of 10 and 100; use a written method to multiply 3-digit and 4-digit numbers by 1-digit numbers and estimate answers, divide 3-digit numbers by 1-digit numbers using a written method and express remainders as a fraction and solve division word problems</p> <ul style="list-style-type: none"> Place value charts Place value counters Multiplication grid Dienes 	<p>Adding and subtracting near 100</p> <p>Rehearse mental addition strategies for decimals and whole numbers; use counting on as a strategy to perform mental addition of 2-place decimals to the next whole number; solve missing number sentences; use mental strategies to solve multi-step word problems; use counting up as a strategy to perform written subtraction (Frog)</p> <ul style="list-style-type: none"> Place value charts Fact family triangles Blank number line 	<p>Adding unit and non-unit fractions with the same denominator</p> <p>Find unit fractions and non-unit fractions of 3-digit numbers; use short multiplication to multiply 3-digit numbers by 1-digit numbers; begin to use short multiplication to multiply 4-digit numbers by 1-digit numbers</p> <ul style="list-style-type: none"> Fraction wall Multiplication grid 	<p>Place value of 5 digit numbers and adding decimals with different number of decimal place</p> <p>Add 5-digit numbers using written column addition; subtract 5-digit numbers using written method (decomposition); check answers to subtractions using written column addition; solve subtractions of 4- and 5-digit numbers using written column subtraction or number line counting up</p> <ul style="list-style-type: none"> Place value grid Place value counters Number line Multi-link 	<p>Properties of shape e.g. quadrilateral with 2 lines of symmetry</p> <p>Use short division to divide 3-digit numbers by 1-digit numbers and 4-digit numbers by 1-digit numbers, including those which leave a remainder; express a remainder as a fraction; use long multiplication to multiply 3-digit and 4-digit numbers by teens numbers</p> <ul style="list-style-type: none"> Cuisenaire rods Multiplication grid Part whole model

Week 3	Reading the time to the nearest minute	Place value of decimals	Decimal place value to link to decimals in money including addition	Recognition of 2D shapes and properties of 2D shapes and sorting according to properties	Times tables – 6, 9 and 12 and multiples of them (e.g. 12 x 9 / 120 x 90)	Difference between 2 times
	<p>Solve subtraction using a written method for 3-digit – 3-digit numbers and for 4-digit numbers; use counting up (Frog) as a strategy to perform mental subtraction; find change from a multiple of ten pounds using counting up</p> <ul style="list-style-type: none"> 🍃 Blank number lines 🍃 Place value grids 🍃 Coins 	<p>Place numbers to 100 000 and decimals up to two places on a line, round numbers to the nearest 10, 100 and 1000 and decimals up to two places to the nearest whole number; compare and order numbers with up to two decimal places; reduce fractions to their simplest form; know and recognise equivalent fractions and decimals to half, tenths and fifths</p> <ul style="list-style-type: none"> 🍃 Blank number lines 🍃 Dienes 🍃 Place value grid 🍃 Fraction wall 	<p>Use a written column method to add amounts of money in pounds and pence; add 2-place decimals using written column addition; subtract decimal numbers using counting up (Frog)</p> <ul style="list-style-type: none"> 🍃 Coins 🍃 Blank number line 🍃 Place value grids / counters 	<p>Understand what a polygon is; draw polygons using dotted square and isometric paper; revise terms obtuse, acute and reflex angles, perpendicular and parallel sides; recognise quadrilaterals as polygons and identify their properties; classify quadrilaterals; draw regular polygons and explore their properties; revise metric units of weight, capacity and length; understand that we can measure in imperial units and relate these to their instances in daily life</p> <ul style="list-style-type: none"> 🍃 Angle eater 🍃 Rulers for measuring/drawing 🍃 Measuring jugs 🍃 Scales 🍃 Conversion charts for metric/imperial 🍃 2d shapes 	<p>Multiply fractions less than 1 by whole numbers, convert improper fractions to whole numbers; use short multiplication to multiply 3-digit and 4-digit numbers by 1-digit numbers; use long multiplication to multiply 2-digit and 3-digit numbers by teens numbers</p> <ul style="list-style-type: none"> 🍃 Multi-link 🍃 Multiplication grid 	<p>Understand what percentages are, relating them to hundredths; know key equivalences between percentages and fractions, finding percentages of amounts of money; find equivalent fractions, decimals and percentages; solve problems involving fraction and percentage equivalents; write dates using Roman numerals</p> <ul style="list-style-type: none"> 🍃 Dienes 🍃 100 square 🍃 Fraction wall 🍃 Fraction pieces 🍃 Cuisenaire rods
Week 4	Times tables – 3, 4, 6- making connections between x tables and finding their inverse	Classification of angles – obtuse, acute, reflex	Times tables – 7 and 8- making connections between x tables and finding their inverse	Partitioning 4-digit numbers in different ways	Placing 1 digit numbers on a number line with different / missing end points	Negative numbers
	<p>Understand place value in decimal numbers; multiply and divide numbers with up to two decimal places by 10 and 100; multiply and divide by 0 and 100; add and subtract 0.1 and 0.01; multiply and divide by 4 by doubling or halving twice; use mental multiplication strategies to multiply by 20, 25 and 9</p> <ul style="list-style-type: none"> 🍃 Place value grids 🍃 Place value counters 	<p>Use a protractor to measure and draw angles in degrees; recognise, use terms and classify angles as obtuse, acute and reflex; recognise that angles on a line total 180° and angles round a point total 360°; identify and name parts of a circle including diameter, radius and circumference; draw circles to a given radius using a pair of compasses; relate angles to turns, and recognise that a 360° angle is a complete turn; use angle facts to solve problems related to turn</p> <ul style="list-style-type: none"> 🍃 Protractors 🍃 Compasses 🍃 Angle measurers 	<p>Use rules of divisibility to find if numbers are divisible by 2, 3, 4, 5, 9 and 10; identify prime numbers; revise finding factors of numbers; find squares and square roots of square numbers; finding patterns and making and testing rules; use mental multiplication and division strategies; relate mental division strategies to multiples of ten of the divisor</p> <ul style="list-style-type: none"> 🍃 Multiplication grid 🍃 Fact family triangles 	<p>Solve subtraction of 4-digit numbers using written column subtraction (decomposition); add several numbers using written column addition; use column to solve problems</p> <ul style="list-style-type: none"> 🍃 Place value chart 🍃 Place value counters 	<p>Read, write and compare decimals to three decimal places, understanding that the third decimal place represents thousandths; multiply and divide numbers by 10, 100 and 1000 using 3-place decimal numbers in the calculations; place 2-place decimals on a number line and round them to the nearest tenth and whole number; read, write, order and compare 3-place decimal numbers; understand and use negative numbers in the context of temperature</p> <ul style="list-style-type: none"> 🍃 Place value counters 🍃 Place value grid 🍃 Number lines 	<p>Find the area and perimeter of squares and rectangles by calculation and pursue a line of enquiry; estimate and find the area of irregular shapes; calculate the perimeter and area of composite shapes; use the relations of area and perimeter to find unknown lengths; begin to understand the concept of volume; find the volume of a cube or cuboid by counting cubes; understand volume as measurement in three dimensions; relate volume to capacity; recognise and estimate volumes</p> <ul style="list-style-type: none"> 🍃 Multiplication grid 🍃 3d shapes and nets 🍃 Capacity containers

Week 5	Telling the time to the hour, half hour, quarter to, quarter past	Fact families – understanding that addition and subtraction are the inverse	Converting measures – metres to kilometres, millilitres to litres, cm to metres	Placing unit fractions on a number line	Converting units of measure	Properties of number- primes and factors
	<p>Revise converting 12-hour clock times to 24-hour clock times; find a time a given number of minutes or hours and minutes later; calculate time intervals using 24-hour clock format; measure lengths in mm and convert to cm; find perimeters in cm and convert cm to m</p> <ul style="list-style-type: none"> 🌿 Clocks 🌿 Segmented clock 🌿 mm/cm/m conversion chart 🌿 Ruler for measuring 	<p>Revise mental and written addition and subtraction strategies, choose to use a mental strategy or written method to solve addition and subtraction, choose to solve word problems involving multiplication and division questions including 2- and 3-digit by 1-digit and 2-digit by 2-digit using a mental or a written method, use mathematical reasoning to work out a function, identify the operation being used on numbers, understand that addition and subtraction are inverse operations multiplication and division, use function machines</p> <ul style="list-style-type: none"> 🌿 Place value charts 	<p>Know properties of equilateral, isosceles, scalene and right-angled triangles; find that angles in a triangle have a total of 180°; sort triangles according to their properties; use scales to weigh amounts to the nearest half interval; convert from grams to kilograms and vice versa, from millilitres to litres and vice versa, and from metres to kilometres and vice versa; read scales to the nearest half division; understand that we measure distance in kilometres and miles; use ready reckoning to give approximate values of miles in kilometres and vice versa; draw line conversion graphs</p> <ul style="list-style-type: none"> 🌿 Protractors 🌿 Scales 🌿 Measuring jugs 🌿 Tape measures 🌿 Ruler for measuring 🌿 2d shapes- triangles 	<p>Place mixed numbers on lines; count up in fractions using equivalence; convert improper fractions to mixed numbers and vice versa; write improper fractions as mixed numbers and vice versa; multiply proper fractions by whole numbers</p> <ul style="list-style-type: none"> 🌿 Number lines 🌿 Cuisenaire rods 🌿 Multiplication grid 	<p>Read and mark co-ordinates in the first two quadrants; draw simple polygons using co-ordinates; translate simple polygons by adding to and subtracting from the co-ordinates; reflect simple shapes in the y axis or in a line, noting the effect on the co-ordinates; translate simple shapes and note what happens to the co-ordinates; draw regular and irregular 2D shapes using given dimensions and angles; use the properties of 2D shapes, including rectangles, to derive related facts; identify 3D shapes from 2D representations; create 3D shapes using 2D nets and draw 3D shapes</p> <ul style="list-style-type: none"> 🌿 2d shapes 🌿 3d shapes with nets 🌿 Protractors 	<p>Find cubes of numbers to 10; draw and interpret line graphs showing change in temperature over time; begin to understand rate; use timetables using the 24-hour clock and use counting up to find time intervals of several hours and minutes; solve problems involving scaling by simple fractions; use factors to multiply; solve scaling problems involving measure</p> <ul style="list-style-type: none"> 🌿 Clocks 🌿 Cuisenaire rods 🌿 Number lines 🌿 Multiplication grids
Week 6	<p>Telling the time to five-minute intervals/ number bonds to 24/60</p> <p>Revise converting 12-hour clock times to 24-hour clock times; find a time a given number of minutes or hours and minutes later; calculate time intervals using 24-hour clock format; measure lengths in mm and convert to cm; find perimeters in cm and convert cm to m</p>	<p>Fact families – understanding that division and multiplication are inverse</p> <p>Revise mental and written addition and subtraction strategies, choose to use a mental strategy or written method to solve addition and subtraction, choose to solve word problems involving multiplication and division questions including 2- and 3-digit by 1-digit and 2-digit by 2-digit using a mental or a written method, use mathematical reasoning to work out a function, identify the operation being used on numbers, understand that addition and subtraction are inverse operations multiplication and division, use function machines</p>	<p>Recognition of 2D shapes</p> <p>Know properties of equilateral, isosceles, scalene and right-angled triangles; find that angles in a triangle have a total of 180°; sort triangles according to their properties; use scales to weigh amounts to the nearest half interval; convert from grams to kilograms and vice versa, from millilitres to litres and vice versa, and from metres to kilometres and vice versa; read scales to the nearest half division; understand that we measure distance in kilometres and miles; use ready reckoning to give approximate values of miles in kilometres and</p>	<p>Equivalent fractions</p> <p>Place mixed numbers on lines; count up in fractions using equivalence; convert improper fractions to mixed numbers and vice versa; write improper fractions as mixed numbers and vice versa; multiply proper fractions by whole numbers</p>	<p>Fractions of amounts</p> <p>Read and mark co-ordinates in the first two quadrants; draw simple polygons using co-ordinates; translate simple polygons by adding to and subtracting from the co-ordinates; reflect simple shapes in the y axis or in a line, noting the effect on the co-ordinates; translate simple shapes and note what happens to the co-ordinates; draw regular and irregular 2D shapes using given dimensions and angles; use the properties of 2D shapes, including rectangles, to derive related facts; identify 3D shapes from 2D representations;</p>	<p>Improper fractions and mixed numbers</p> <p>Find cubes of numbers to 10; draw and interpret line graphs showing change in temperature over time; begin to understand rate; use timetables using the 24-hour clock and use counting up to find time intervals of several hours and minutes; solve problems involving scaling by simple fractions; use factors to multiply; solve scaling problems involving measure</p>

	<ul style="list-style-type: none"> 🍃 Clocks 🍃 Segmented clock 🍃 mm/cm/m conversion chart, 🍃 Rulers for measuring 	<ul style="list-style-type: none"> 🍃 Place value charts 🍃 Place value counters 🍃 Fact family triangles 🍃 Multiplication grid 	<p>vice versa; draw line conversion graphs</p> <ul style="list-style-type: none"> 🍃 Protractors 🍃 Scales 🍃 Measuring jugs 🍃 Tape measures 🍃 Ruler for measuring 	<ul style="list-style-type: none"> 🍃 Number lines 🍃 Fraction wall 🍃 Multi-link 	<p>create 3D shapes using 2D nets and draw 3D shapes</p> <ul style="list-style-type: none"> 🍃 2d shapes of different dimensions 🍃 Mirrors 🍃 Rulers 	<ul style="list-style-type: none"> 🍃 Multiplication grid 🍃 Rulers 🍃 Clocks including digital 🍃 Fraction wall 🍃 Rulers/tape measures/ metre sticks
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