Autumn Term 1		Autumn Term 2		
Number & Place Value	**Addition & Subtraction**	**Multiplication & Division**	**Geometry - Shape**	**Measurement – Length & Perimeter**
-Count from 0 in multiples of 10, 50 and 100. -Find 10 or 100 more or less than a given number. -Compare and order numbers up to 200. -Read and write numbers up to 200 in numerals and words. -Recognise the place value of each digit in a three-digit number with numbers up to 200 (hundreds, tens and ones). -Identify, represent and estimate numbers to 200 using different representations. -Solve number problems and practical problems that involve all of the above.	-Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens a three-digit number and hundreds. -Begin to add numbers with two and three digits, using the formal written methods of columnar addition, progressing gradually from concrete and pictorial representation to abstract representation. -Estimate the answer to a calculation and use inverse operations to check answers. -Solve simple problems, including missing number problems, using number facts and place value with numbers up to and including 200.	-Recall and use multiplication and division facts for the 2, 3, 5 and 10 multiplication tables. -Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know (2, 3, 5 and 10). -Multiply one-digit numbers by 2, 3,5 and 10, using mental strategies. -Progress to formal written methods to multiply two-digit numbers by a one-digit number (multiplying by 2, 3 and 5). -Recognise the inverse relationship between multiplication and division when performing calculations to check answers and written methods (when multiplying by 2, 3, 5 and 10).	-Recognise and name symmetrical and non-symmetrical polygons. -Continue to identify, name and describe 3-D shapes, including:cones, cylinders, prisms, pyra- mids, cubes, cuboids, spheres. -Continue to compare, sort and describe common 2-D and 3-D shapes and everyday objects by the number of sides/faces, edges,vertices and lines of symmetry (e.g. using a Venn or Carroll dia- gram). -Recognise angles as a property of shapes. -Identify right angles. -Identify horizontal and vertical lines.	-Measure, compare, add and subtract lengths (m/cm/mm). -Measure the perimeter ofsimple 2-D shapes
Vocabulary: *Number-* Number, numeral, zero, one, two, three … twenty, teens numbers, eleven, twelve … twenty, twenty-one, twenty-two … one hundred, two hundred … one thousand None, how many …? count, count(up) to, count on (from, to), count back (from, to)Forwards backwards, count in ones, twos, fives, tens, threes, fours, eights, fifties and so on to hundreds, equal to, equivalent to, is the same as, more, less, most, least,Tally, many, odd, even, multiple of, factor of, Sequence, continue, predict, few, pattern. pair, rule , relationship> greater than < less than Roman numerals **Place Value** Ones, tens, hundreds Digit, one-, two- or three-digit number, place, place value stands for,	**Vocabulary:** Addition, add, more, and make, sum, total, altogether, double, near double half, halve, one more, two more … ten more … onehundred more, how many more to make …?how many more is… than …? how much more is …? subtract, take away, how manyare left/left over? how many have gone? one less, two less, ten less … one hundred less, how many fewer is … than …? how much less is …? difference between equals, is the same as, number bonds/pairs/facts missing number, tens boundary, hundreds boundary	**Vocabulary:** Multiplication, multiply, multiplied by multiple, factor, groups of, times, product once, twice, three times … ten times, repeated addition Division, dividing, divide, divided by, divided into, left, left over, remainder, grouping, sharing, share, share equally, one each, two each, three each … ten each, group in pairs, threes … tens equal groups of, doubling,halving, array,	**Vocabulary:** shape, pattern, ,flat, curved, straight ,round ,hollow, solid, corner ,point, pointed ,face, side, edge, end ,sort ,make, build, draw ,surface ,*right-angled , vertex, vertices* 　*layer, diagram,* size ,bigger, larger, smaller ,symmetrical	**Vocabulary:** length, width, height,depth, long, short, tall, high, low wide, narrow, deep, shallow, thick, thin longer, shorter, taller, higher… and so on longest, shortest, tallest, highest… and so on, far, further, furthest,near, close *distance apart/between…to… from, kilometre (km),* metre(*m*), centimetre (*cm) mile,* ruler, metre stick, tapemeasure

represents, exchange, the same number as, as many as, more, larger, bigger, greater, fewer, smaller, less , fewest, smallest, least, most, biggest, largest, greatest, one more, ten more, one hundred more, one less, ten less, one hundred less, equal to, compare, order, size, first, second, third … twentieth, twenty- first, twenty-second, last, last but one, before, after, next, between, halfway between, above, below		row, column, number patterns, multiplication table, multiplication fact, division fact	line of symmetry, fold , match , mirror line, reflection ,pattern repeating pattern, cu– be ,cuboid ,pyramid ,sphere, *hemi-sphere* ,cone cylinder , *prism*, circle, circular, *semi-circle* ,triangle, triangular ,square ,rectangle, rectangular ,star ,pentagon, *pentagonal* hexagon, *hexagonal* octagon, *octagonal* , *quadrilateral*	

Spring Term 1			Spring Term 2	
Number & Place Value	**Multiplication & Division**	**Measurement – including addition & subtraction**	**Fractions**	**Measurement -Time**
-Count from 0 in multiples of 4, 8,50 and 100. -Find 10 or 100 more or less than a given number. -Compare and order numbers upto 1000. -Read and write numbers up to 1000 in numerals and words. -Recognise the place value of each digit in a three-digit number (hundreds, tens and ones). -Identify, represent and estimate numbers to 1000 using differentrepresentations. -Solve number problems and practical problems involvingthese ideas	-Recall and use multiplication and division facts for the 3, 4 and 8 multi-plication tables. -Write and calculate mathematical statements for multiplication and division using the multiplication tablesthat they know, including for two-digitnumbers times one-digit numbers, using mental strategies. -Use the multiplication tables that they know, including for two-digit numberstimes one-digit numbers, progressing to formal written methods. -Recognise the inverse relationship between multiplication and division when performing calculations to check answers and written methods. -Multiply numbers to 100 by 10 and understand the effect on the place value of the number being multiplied. -Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which objects are connected to m objects	-Add and subtract amounts of moneyto give change, using both £ and p inpractical contexts. -Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds. -Add and subtract numbers with upto three digits, using the formal written methods of columnar addition and subtraction. -Estimate the answer to a calculation and use inverse operations to checkanswers. -Solve problems, including missing number problems, using number facts, place value, and more complexaddition and subtraction.	-Recognise and show, using diagrams, equivalent fractions withsmall denominators (including: halves, quarters, thirds, sixths, fifths and tenths). -Recognise and use fractions as numbers: unit fractions and non–unit fractions with small denominators (including: halves, quarters,thirds, sixths, fifths and tenths). -Compare and order unit fractions and fractions with the same de–nominator and plot them on segmented number lines. -Recognise, find and write fractions of a discrete set of objects: unit fractions and non–unit fractions with small denominators (including: halves, quarters, thirds,sixths, fifths and tenths). -Solve simple problems that involve all of the above.	-Tell and write the time from an analogue clock, including using Roman numerals from Ito XII, and 12–hour and 24–hour clocks. -Estimate and read time with increasing accuracy to the nearest minute, record and compare time in terms of sec–onds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, after–noon, noon and midnight. -Know the number of seconds in a minute and the number of days in each month, year andleap year. -Compare durations of events (e.g. to calculate the time taken by particular events ortasks)
Vocabulary: See Autumn Term	**Vocabulary:** See Autumn Term	**Vocabulary:** money coin, note penny, pence, pound (£) price, cost buy, bought, sell, sold spend, spent pay change dear, costs more, more/most expen-sive cheap, costs less, cheaper, less/ least expensive how much…? how many…? total, amount value, worth	**Vocabulary:** part, equal parts fraction one whole one half, two halves one quarter, two… three… four quar–ters one third, two thirds, three thirds one tenth	**Vocabulary:** time days of the week: Monday, Tuesday… months of the year: January, February… seasons: spring, summer, autumn, winter day, week, fortnight, month, year, century weekend, birthday, holiday calendar, date morning, afternoon, evening, night, midnight am, pm bedtime, dinnertime, playtime today, yesterday, tomor–row before, after next, last now, soon, early, late, earliest, latest quick, quicker, quickest, quickly fast, faster, fastest slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer,

				takes less timehow long ago? how long will it be to…? how long will it take to…? hour, minute, second o'clock, half past, quarter to, quarter past clock, watch, hands digital/ analogue clock/watch, timer how often? always, never, often, sometimes, usually once, twice

Summer Term 1			Summer Term 2	
Fractions	**Geometry - Shape**	**Measurement - Mass, Capacity and Volume**	**Number**	**Statistics**
-Recognise and show, using diagrams, equivalent fractions with small de– nominators. -Recognise and use fractions as numbers: unit fractions and non–unit fractions with small denominators. Compare and order unit fractions with the same denominators. -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. -Recognise, find and write fractions of a discrete set of objects: unit fractions and non–unit fractions with small denominators. -Add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 = 6/7 and 1/3 + 2/3 make a whole). -Solve problems that involve all of the above.	-Recognise angles as a property of shape or a description of a turn. -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. -Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. -Draw 2–D shapes accurately and connect decimals and rounding to drawing and measuring straight lines in centimetres in a variety of contexts (e.g. rounding mm on a ruler to the nearest cm). -Make 3–D shapes using modelling materials and name and describe the properties using accurate language when describing the angles, edges, vertices and measurements. -Recognise 3–D shapes in different orientations and describe them.	-Measure, compare, add and subtract volume/capacity (l/ml).Measure, compare, add and subtract mass (kg/g).	-Add and subtract numbers mentally, including: a three–digit number and ones, a three–digit number and tens, a three–digit number and hundreds. -Add and subtract numbers with up to three digits, using the 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. -Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. -Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 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 are connected to m objects.	-Interpret and present data using barcharts, pictograms and tables. -Solve one–step and two–step questions (e.g. 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables.

Vocabulary:	Vocabulary:	Vocabulary:	Vocabulary:	Vocabulary:
See Spring Term	See Autumn Term	weigh, weighs, balances heavy/light, heavier/ lighter, heaviest/lightest kilogram (kg), half– kilogram, gram (g) balance, scales, weight CA–PACITY capacity full, half full empty holds, contains litre (l), half–litre, millilitre(ml) container	See Autumn Term	count, tally, sort, vote graph, block graph, pictogram rep–resent group, set list, chart, bar chart table, frequency table Carroll diagram, Venn diagram label, title, axis, axesdiagram most popular, most common least popular, least common

Fluency Memory Joggers:

Within the daily maths session, 5/10 minutes is used to ensure the children have varied and fluent practise of basic skills. Previous maths domains are visited.

Mini Maths Meet:

A daily 10 minute focus (outside of the maths session) on a specific aspect of maths/ basic skills/ problem solving/ reasoning which is explored in depth. Eg. 6x3.

Problem Solving & Reasoning:

PSR takes place within sessions & also in a discrete PSR session once a week.

Year 3 Skills:

	Skills
Problem Solving	Engage with mathematical activities and problems, making links and moving between different representations (concrete, pictorial, abstract).
	Independently choose to scaffold thinking using concrete, pictorial or abstract representations, if required.
	Independently choose to represent thinking using concrete, pictorial or abstract representations, as appropriate.
	Independently find an efficient way to solve a range of problems.
	Independently work systematically.
	Independently find possibilities using patterns spotted to support.
	Independently check and improve work (e.g. look for other possibilities, repeats, missing answers, errors and ways to improve).
	Pattern spot and predict what will come next in a pattern/sequence (numbers, shape or spatial).
	Independently investigate conjectures and provide examples and counter-examples.
	When they have solved a problem, pose a similar problem for a peer.

	Skills
Reasoning	Provide a convinced argument.
	Reflect on others' convinced explanations and use this to improve their work.
	Edit and improve their own and a peer's convinced explanation.
	Investigate 'what if?' questions.
	Create 'what if?' questions.