MATHEMATICS
MEDIUM TERM PLAN – Y2

Concept	National Curriculum Objectives	Key Skills	Concrete Resources	Vocabulary
Number **Place Value** (Autumn Term)	• count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward • recognise the place value of each digit in a two-digit number (tens, ones) • identify, represent and estimate numbers using different representations, including the number line • compare and order numbers from 0 up to 100; use <, > and = signs • read and write numbers to at least 100 in numerals and in words • use place value and number facts to solve problems.	• Numbers to 20 • Count objects to 100 by making 10s • Recognise tens and ones • Use a place value chart • Partition numbers to 100 • Write numbers to 100 in words • Flexibly partition numbers to 100 • Write numbers to 100 in expanded form • 10s on the number line to 100 • 10s and 1s on the number line to 100 • Estimate numbers on a number line • Compare objects • Count in 2s, 5s and 10s • Count in 3s	• Numicon • Diennes/Base 10 • Straws • Tens Frames & 2 sided counters • Bead Strings • Concrete objects for counting/ordering • Number lines	equal to, more than, less than (fewer), most, least, value, backwards, forwards, nearest 10, tens, ones, partition

Number
 	
Addition and Subtraction
 	
(Autumn Term)
	• solve problems with addition and subtraction:
	  ○ using concrete objects and pictorial representations, including those involving numbers, quantities and measures
	  ○ applying their increasing knowledge of mental and written methods
	• 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
	  ○ a two-digit number and tens
	  ○ two two-digit numbers
	  ○ adding three one-digit numbers
	• show that addition of two numbers 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.
		• Bonds to 10
		• Fact families – addition and subtraction bonds within 20
		• Related facts
		• Bonds to 100 (10s)
		• Add and subtracts 1s
		• Add by making 10
		• Add three 1-digit numbers
		• Add to the next 10
		• Add across a 10
		• Subtract from a 10
		• Subtract a 1-digit number from a 2-digit number (across 10)
		• 10 more, 10 less
		• Add and subtract 10s
		• Add two 2-digit numbers (not across 10)
		• Add two 2-digit numbers (across 10)
			• Numicon
			• Diennes/Base 10
			• Straws
			• Tens Frames & 2 sided counters
			• Bead Strings
			• Number lines
			• Concrete objects to manipulate when adding/subtracting
			• Interlocking Cubes
			• Digit cards (moving to abstract)
				equal to, more than, less than (fewer), answer, as many as, calculate, count, how many?, make, number bond, number sentence, operation, add, altogether, and, plus, put together, sum, less, take away, subtract, minus, what is the difference?, bridging ten, counting on, inverse, partition, commutative,

Geometry **Shape** (Autumn Term)	• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D and 3-D shapes and everyday objects.	• Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes • Draw 2-D shapes • Lines of symmetry on shapes • Use lines of symmetry to complete shapes • Sort 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Sort 3-D shapes • Make patterns with 2-D and 3-D shapes	• Selection of 2-D shapes • Selection of 3-D shapes 2-D and 3-D shape word mats	circle, rectangle, triangle, oval, octagon, square, heptagon, rhombus, pentagon, hexagon, kite, cube, cuboid, cone, cylinder, sphere, prism, pyramid

Measurement **Money** (Autumn Term)	• 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 • compare and sequence intervals of time	• recognising coins and notes • count money- pence • count money - pounds (notes and coins) • Count money- notes and coins • Select money • Make the same amount • Compare money • Find the total • Find the different • Find change • Two-step problems	• Money – coins, notes • Money vocabulary word mats	value, pounds, pence, money, amount, price, total, change, difference, altogether, add, make, takeaway, compare, more than, less than, equal to
Number **Multiplication and Division** (Autumn Term)	• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	• Make equal groups • Add equal groups • Make arrays	• Counters • Objects for grouping • String beads • Numicon • Times table squares	array, column, row, groups of, lots of, multiple of, multiplied by, multiply, remainder, division, equal groups of, repeated addition, repeated subtraction,
Number **Multiplication and Division** (Spring Term)	• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	• Recognise equal groups • Make equal groups • Add equal groups • Multiplication sentences using the x symbol • Multiplication sentences from pictures • Use arrays • Make doubles • 2 times tables • 5 times tables • 10 times tables • Make equal groups – sharing	• Counters • Objects for grouping • String beads • Numicon • Times table squares	array, column, row, groups of, lots of, multiple of, multiplied by, multiply, remainder, division, equal groups of, repeated addition, repeated subtraction,

		• Make equal groups – grouping • Divide by 2 • Odd and even numbers • Divide by 5 • Divide by 10		
Statistics (Spring Term)	• 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 • ask and answer questions about totalling and comparing categorical data.	• Make tally charts • Draw pictograms • Interpret pictograms • Draw pictograms (2,5,10) • Interpret pictograms (2,5,10) • Block diagrams	• Objects to sort • Match sticks	block diagram, block graph, compare, count, label, list, most common, least common, most popular, least popular, pictogram, sort, set, represent, table, tally, tally chart, total
Geometry **Properties of Shape** (Spring Term)	• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D and 3-D shapes and everyday objects.	• Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices of 2-D shapes • Draw 2-D shapes • Lines of symmetry • Sort 2-D shapes • Make patterns with 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Sort 3-D shapes • Make patterns with 3-D shapes	• Selection of 2-D shapes • Selection of 3-D shapes • 2-D and 3-D shape word mats	circle, rectangle, triangle, oval, octagon, square, heptagon, rhombus, pentagon, hexagon, kite, cube, cuboid, cone, cylinder, sphere, prism, pyramid
Number **Fractions** (Spring Term)	• recognise, find, name and write fractions ⅓, ¼, ²/₄ and ¾ of a length, shape, set of objects or quantity • write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of two quarters and one half.	• Make equal parts • Recognise a half • Find a half • Recognise a quarter • Find a quarter • Recognise a third • Find a third • Unit fractions • Non-unit fractions • Equivalence of ½ and ¼ • Find three quarters • Count in fractions	• Interlocking cubes • Numicon • Counters • Objects to share equally	divide, equal parts, equivalent, four quarters, fractions, group, group equally, one half, 1/2 , one quarter, 1/4 , one whole, part, share, share equally, third, 1/3, 3/4, two halves, two quarters

Measurement **Length and Height** (Summer Term)	• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels	• Compare lengths and heights • Measure lengths (non-standard units) • Measure lengths (standard units) • Measure lengths (cms) • Measure length (m) • Compare lengths • Order lengths • Four operations with lengths	• Rulers, measuring tapes, metre sticks • Interlocking cubes • Objects to measure	length, width, height, depth, short, long, tall, high, wide, longer, shorter, taller, longest, shortest, tallest, centimetre, metre, double, half
Measurement **Time** (Summer Term)	• compare and sequence intervals of time • 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 • know the number of minutes in an hour and the number of hours in a day.	• Telling time to the hour • Telling time to the half hour • O'clock and half past • Quarter past and quarter to • Telling time to 5 minutes • Writing time • Hours and days • Find durations of time • Compare durations of time	• Class clocks • Stopwatches • Timers • Interactive clocks	O'clock, five past, ten past, quarter past, twenty past, twenty-five past, half past, twenty-five to, twenty to, quarter to, ten to, five to, day, week, month, year, hour, minute, seconds, seasons, century, quicker, slower, earlier, later, before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening
Measurement **Mass, Capacity and Temperature** (Summer Term)	• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order lengths, mass, volume/capacity and record the results using >, < and =	• Introduce weight and mass • Measure mass • Compare mass • Measure mass in grams • Measure mass in kilograms • Introduce capacity • Compare volume • Millilitres • Litres • Temperature	• Balance scales • Measuring jugs • Different bottles/containers to show capacity • Range of objects to compare mass • Weighing scales • Thermometers	heavy, light, heavier than, lighter than, balance scale, equal to, mass, weight, volume, capacity, more, less, full, empty, quarter, half, kilograms, grams, degrees centigrade