Year 2 – Maths Teaching Overview

Autumn 1		
Number and place-value **(NPV)**	Estimate and count a number of objects up to 100; locate numbers on 0–100 beaded lines and 1–100 squares; compare pairs of numbers and find a number in between; order three numbers; order 2-digit numbers	• estimate and count a number of objects up to 100.
		• locate numbers on 0–100 beaded lines and 1–100 squares.
		• compare two numbers • find a number in between two numbers.
		• compare two numbers • find a number in between two 2-digit numbers • order three 2-digit numbers.
		• order 2-digit numbers. • begin to organise their work systematically.
Mental addition and subtraction **(MAS)**	Revise number bonds to 6, 7, 8, 9 and 10; know number bonds to 10 and begin to learn related subtraction facts; know multiple of 10 number bonds to 100; learn bonds to 20; rehearse number bonds to 10 and 20 using stories	• say all the bonds to 10 and know them by heart • say all the bonds to 6, 7, 8, 9 and know them by heart • understand that addition can be done in any order.
		• say all the bonds to 10 and know them by heart • use known bonds to 10 to solve related subtractions.
		• recognise and work out multiple of 10 bonds to 100 • recognise there is a relationship between bonds to 10 and multiple of 10 bonds to 100.
		• learn bonds to 20 • understand addition can be done in any order • use knowledge that teen numbers are a 10 and some 1s to help with bonds to 20.
		• relate known number bonds to context-based problems • begin to write ‘word problems’.
Mental addition and subtraction **(MAS)**; Mental multiplication and division **(MMD)**	Double numbers to double 15; use patterns in number bonds; use number bonds to solve more difficult additions, subtractions and to solve additions bridging 10	• double numbers 1–15 • begin to double numbers greater than 10 by doubling 10 then the 1s • say doubles to double 10 and know them by heart.
		• say the number bonds to 6, 7, 8, 9 and 10 and know them by heart • use number bonds to solve related additions.
		• say the number bonds to 6, 7, 8, 9 and 10 and know them by heart • use number bonds to solve related additions • ask and answer questions looking for number patterns • begin to think and record systematically.
		• use known number bonds (addition) to solve subtraction • begin to understand the relationship between addition and subtraction.
		• use number bonds to 10 to solve harder additions • begin to bridge 10.
Geometry: properties of shapes **(GPS)**; Statistics **(STA)**	Sort 2D shapes according to symmetry properties using Venn diagrams; identify right angles and sort shapes using Venn	• recognise basic line symmetry • sort shapes using Venn diagrams

	diagrams; recognise squares, rectangles, circles, triangles, ovals and hexagons and discover which tessellate; sort shapes and objects using a two-way Carroll diagram	• understand the overlap in a Venn diagram.
		• identify right angles • sort shapes using Venn diagrams.
		• recognise squares, rectangles, circles, triangles, ovals, hexagons and quadrilaterals • tessellate shapes.
		• sort shapes according to their properties using a two-way Carroll diagram.
		• sort objects using a two-way Carroll diagram.
Number and place-value **(NPV)**; Mental addition and subtraction **(MAS)**	Mark numbers on a landmarked line; compare and order numbers, using < and > signs; find 1 and 10 more or less using the 100-square; find 10 more and 10 less than any 2-digit number	• begin to locate numbers on a 0–100 landmarked line.
		• compare 2-digit numbers using the < and > signs.
		• compare 2-digit numbers using the < and > signs.
		• find 1 and 10 more/less than 2-digit numbers using a 100-square.
		• add and subtract 10, labelling jumps on a beaded line.
Autumn 2		
Number and place-value **(NPV)**; Mental addition and subtraction **(MAS)**; Measurement **(MEA)**	Know and use ordinal numbers; understand that 2-digit numbers are made from some 10s and some 1s; understand place-value using 10p and 1p coins; find 10p more and 10p less; find 10 more and 10 less	• use ordinal numbers to describe position in a sequence.
		• partition 2-digit numbers into 10s and 1s and recombine • write additions and subtractions using knowledge of place-value.
		• recognise the value of each digit in a 2-digit number • understand that a 10p coin has the same value as ten 1p coins.
		• find 10 more and 10 less than 2-digit numbers.
		• find 10 more and 10 less than 2-digit numbers.
Number and place-value **(NPV)**; Mental addition and subtraction **(MAS)**	Add and subtract 10, 20 and 30 to any 2-digit number; add and subtract 11, 21, 12 and 22 to any 2-digit number; solve addition and subtractions by counting on and back in 10s then in 1s	• add 10, 20 or 30 to any 2-digit number (not crossing 100) • count on and back in 10s from any number (<100).
		• subtract 10, 20 or 30 from any 2 digit number (positive answer).
		• add 11, 12, 21, 22, by adding 10s then counting on 1 or 2 • re-order an addition so the largest number is first.
		• subtract 'near' tens (11, 12, 21, 22) by counting back 10 and adjusting.
		• add and subtract near 10s (11, 12, 21, 22) from 2-digit numbers • know when to count on or count back to add or subtract.
Geometry: position and direction **(GPD)**; Measurement **(MEA)**	Understand and use terms and vocabulary associated with position, direction and movement; measure lengths using uniform units; begin to measure in centimetres and metres	• use language of position, direction and movement • understand vocabulary: in, on, under, over, behind, above, in front of, next to, between, left, right, forward, backward, top, middle, bottom, inside, outside, turn, quarter turn, half turn.
		• use language of position, direction and movement • understand vocabulary: in, on, under, over, behind, above, in front of, next to, between,

		left, right, forward, backward, top, middle, bottom, inside, outside, turn, quarter turn, half turn.
		• understand the need for a standard unit • use a uniform unit to measure lengths.
		• begin to estimate and measure in centimetres.
		• begin to estimate and measure in metres • begin to know whether to measure in cm or metres.
Mental addition and subtraction **(MAS)**; Mental multiplication and division **(MMD)**	Add and subtract 2-digit numbers; add near doubles to double 15; add several small numbers spotting near doubles or pairs to 10	• begin to add 2-digit numbers counting on in 10s and 1s.
		• begin to subtract 2-digit numbers counting back in 10s and 1s.
		• add and subtract two 2-digit numbers by counting on and back in 10s and 1s.
		• say the doubles up to double 20 and know them by heart • add near doubles by doubling then adding or subtracting 1.
		• use known number facts to add three 1-digit numbers • say the bonds to 10 and doubles to 10 + 10 and know them by heart.
Mental multiplication and division **(MMD)**; Measurement **(MEA)**	Count in 2s, 5s and 10s from zero; count in multiples of 2p, 5p and 10p; number sequences of 2s, 5s and 10s; find the totals of coins and ways to make an amount; use coins to make given amounts of money	• draw jumps of 2, 5 and 10 • relate counting in 2s, 5s and 10s to adding 2, 5 and 10.
		• count in 2s, 5s and 10s.
		• complete patterns counting in 2s, 5s and 10s • recognise multiples of 2, 5 and 10.
		• work out the coins that are needed to pay an amount up to 30p.
		• work out different ways of making 25p • work out which coins are needed to pay an amount up to £1.
Spring 1		
Number and place-value **(NPV);** Mental addition and subtraction **(MAS)**	Place-value and ordering 2-digit numbers; place-value additions and subtractions; add and begin to subtract 9, 10, and 11	• say what each digit in a 2-digit number represents • say the number before or after any 2-digit number.
		• partition 2-digit numbers into tens and ones and recombine • write place-value additions and subtractions.
		• add 10 and 11 to 2-digit numbers.
		• add 9, 10 and 11 to 2-digit numbers.
		• add and subtract 9, 10 and 11 to and from 2-digit numbers.
Mental addition and subtraction **(MAS)**	Revise number bonds to 10; begin to bridge 10; subtract from 10 and 20; use number facts to find the complement to ten; find a difference between two numbers by counting on	• use bonds to ten to add single digit numbers bridging ten.
		• use their bonds to 10 to solve subtractions • use their bonds to 20 to solve subtractions.
		• add to the next ten using bonds to ten • complete addition sentences showing complements to multiples of ten
		• use bonds to ten to solve complement to multiples of ten additions.
		• work out a small difference (1-digit number) between two numbers • identify the larger and the smaller of two numbers (<100).

Mental addition and subtraction **(MAS)**	Rehearse complements to multiples of 10; find differences using a number line; find change from 10p and 20p, and from £10 to £20 by counting up and using bonds to 10 and 20; add two 2-digit numbers by counting on	• use knowledge of bonds to ten to find complements to next ten • count on to find complement to next ten.
		• chn know complements to ten and use to find difference between • chn count up to find difference between numbers.
		• add to ten or twenty using bonds • find change from 20p by counting up.
		• count up to ten and twenty to find change, using knowledge of bonds • find change from ten and twenty (£ or p) by counting up in ones • begin to understand counting up is method of solving subtraction (money).
		• add two 2-digit numbers by counting on in tens and ones • add two 2-digit numbers crossing tens using complements to ten and then adding on e.g. 38+54, Start with 54, count on 3 tens, 84 then add 6 to 90 and finally add the remaining 2 to 92.
Geometry: properties of shapes **(GPS)**; Measurement **(MEA)**; Geometry: position and direction **(GPD)**	Recognise and identify properties (including faces and vertices) of 3D shapes; sort according to properties including number of faces; name the 2D shapes of faces of 3D shapes; tell the time to the nearest quarter on analogue and digital clocks	• identify and name 3D shapes • sort 3D shapes according to the number of faces using Venn diagrams.
		• name and describe properties of 3D shapes; sphere, cube, cuboid, cylinder, cone and pyramid • create repeating patterns using 3D shapes.
		• identify and name common 3D shapes • describe the properties of 3D shapes with particular reference to the number and shape of their faces.
		• tell the time on analogue and digital clocks to the nearest quarter of an hour (quarter past, half past, quarter to and o'clock).
		• tell the time to the nearest quarter on analogue and digital clocks.
Number and place-value **(NPV)**	Order 2-digit numbers and revise the < and > signs; locate 2-digit numbers on a landmarked line and square; round 2-digit numbers to nearest 10; estimate a quantity <100 within a range	• compare and order 2-digit numbers using < and > signs.
		• locate 2-digit numbers on a 0-100 landmarked line.
		• round 2-digit numbers to nearest ten.
		• round 2-digit numbers to nearest ten.
		• estimate a quantity <100 within given ranges.
Spring 2		
Fractions, ratio and proportion **(FRP)**; Mental multiplication and division **(MMD)**	Revise doubles and corresponding halves to 15; find half of odd and even numbers to 30; Revise and recognise 1/2s, 1/4s, 1/3s and 2/3s of shapes; place 1/2s on a number line; count in 1/2s and 1/4s; understand and write mixed numbers	• double numbers to 15 and find corresponding halves.
		• halve even numbers to 30 • recognise odd and even number to 30.
		• recognise, read and write ½, ¼, ¾, 1/3 and 2/3.
		• understand mixed numbers and place halves on a number line.

		• count in steps of ½ and ¼ (without necessarily using the equivalence between halves and quarters).
Mental multiplication and division **(MMD)**	Count in 2s, 5s and 10s to solve multiplication problems and find specified multiples; introduce the × sign; record the 2, 5 and 10 times-tables; find multiplications with the same answer; write multiplications to go with arrays, rotate arrays to show they are commutative	• find a specified multiple in the 2s, 5s and 10s count, e.g. the 4th number in the 2s count.
		• understand the × sign • begin to know the 2, 5 and 10 times-tables.
		• begin to learn the 2×, 5× and 10× tables • find multiplications with the same answer.
		• solve simple word problems involving multiplication.
		• write multiplications to go with arrays • begin to understand that multiplication is commutative.
Measurement **(MEA)**; Statistics **(STA)**	Tell the time to the nearest quarter of an hour using analogue and digital clocks; understand units of time; express hours in minutes and minutes in seconds; interpret and complete a pictogram where one symbol represents one or two things	• tell the time on an analogue or digital clock to the nearest quarter.
		• recognise and identify units of time: minutes, hours, days, weeks, months and years • begin to know how to express each unit of time in terms of another, smaller unit, e.g. 4 weeks in a month, 24 hours in a day, etc.
		• understand how long an hour, a minute and a second is • recognise and use units of time: hours, minutes, seconds • use tally charts to record data • construct a block graph using cubes.
		• children can complete a pictogram and interpret and complete pictograms and block graphs where one picture or block represents one item.
		• children can interpret and complete a pictogram using one symbol to represent two children.
Mental multiplication and division **(MMD)**	Revise 2, 5 and 10 times-tables; revise arrays and hops on the number line; multiply by numbers other than 2, 5 and 10; arrange objects into arrays and write the corresponding multiplications; make links between grouping and multiplication to begin to show division; write divisions as multiplications with holes in and use the ÷ sign	• can count in twos, fives and tens • write multiplications to go with hops on numbers lines arrays • begin to know their 2, 5 and 10 times-tables by heart.
		• use multiplication facts to and counting in steps to multiply by 2, 3, 4, 5 and 10.
		• arrange objects into arrays and write the corresponding multiplications.
		• understand division as grouping • use multiplication facts or counting up in steps to solve divisions.
		• begin to write divisions using the ÷ sign.
Measurement **(MEA)**; Mental addition and subtraction **(MAS)**	Recognise all coins, know their value, and use them to make amounts; recognise £5, £10, £20 notes; make amounts using coins and £10 note; write amounts using	• recognise & know value of coins 1p-£2 • add several coins adding by counting on in £, 10ps and 1ps.

	£.p notation; order coins 1p-£2 and notes £5 - £20; add several coins writing totals in £.p notation (no zeros in 10p place); add two amounts of pence, using counting on in tens and ones; add two amounts of money, beginning to cross into £s	• recognise & know value of coins 1p-£2, • know £1=100p • begin to write amounts using £.p notation.
		• recognise & know value of coins 1p-£2 & notes £5-£20 • add several coins adding by counting on in £, 10ps and 1ps • begin to write using £.p notation.
		• add two amounts of money (<£1) not crossing £1 but crossing 10ps by counting on in 10ps and then 1ps starting with the larger number.
		• add two amounts of money (<£1) crossing 10ps and £1 by counting on in 10ps and then 1ps starting with the larger number • write amounts using £.p notation (No zeros in 10ps place).
Summer 1		
Number and place-value **(NPV)**; Mental addition and subtraction **(MAS)**	Locate, order and compare 2-digit numbers on 0-100 landmarked lines and on the 1-100 square; use < and > signs; locate numbers on an empty 0-100 line; introduce numbers 101 to 200 and count in 100s to 1000; add 2-digit numbers by counting on in 10s and 1s; subtract 2-digit numbers by counting back in 10s and 1s	• locate, order and compare 2-digit numbers on 0-100 landmarked lines and on the 1-100 square • use < and > signs.
		• begin to locate numbers on an empty number line • round 2-digit numbers to the nearest 10.
		• read numbers to 200 and locate them on a 101 to 200 square • count in steps of 100 to 1000.
		• add 2-digit numbers by putting the larger number first, then counting on the 10s, then adding on the 1s of the smaller number.
		• subtract 2-digit numbers by subtracting the 10s then the 1s of the smaller number.
Mental addition and subtraction **(MAS)**; Mental multiplication and division **(MMD)**	Use doubles and number bonds to add three 1-digit numbers; use number facts to 10 and 20 in number stories; find complements to multiples of 10; understand subtraction as difference and find this by counting up; find small differences either side of a multiple of 10	• double numbers to double 10 • know number bonds to 10 • use doubles and number bonds to ten in adding three single digit numbers.
		• use number bonds to 10 and 20 in stories.
		• find complements to multiples of 10 • begin to understand subtraction as difference, and find this by counting up using pairs to 10.
		• work out differences (less than 10) using knowledge of complements to ten and PV additions.
		• work out differences (less than 10) using knowledge of complements to ten and PV additions.
Mental addition and subtraction **(MAS)**; Written addition and	Add and subtract 1-digit numbers to and from 2-digit numbers; subtract 2-digit numbers by counting back in	• add/subtract 1-digit numbers from 2-digit numbers.

subtraction **(WAS)**	tens and ones; add two 2-digit numbers by counting in 10s, then adding 1s; add 2-digit numbers using 10p and 1p coins (partitioning, answers less than 100); add 2-digit numbers using place-value cards (partitioning, answers more than 100)	• chn subtract 2-digit numbers by counting back in 10s and 1s (not crossing tens).
		• add two 2-digit numbers by counting on in tens and ones • begin to cross 100 when adding two numbers.
		• chn begin to add three 2-digit numbers using coins to count tens and ones and total.
		• children can use partitioning to add any pair of 2-digit numbers.
Measurement **(MEA)**; Statistics **(STA)**	Measure weight using standard or uniform non-standard units; draw a block graph where one square represents two units; weigh items using 100g weights using scales marked in multiples of 1kg or 100g; measure capacity using uniform non-standard units; measure capacity in litres and in multiples of 100ml	• measure weight using uniform non-standard units • draw a block graph where one square represents two units.
		• begin to know standard units of weight (g and kg) • begin to read a scale marked in intervals of 100g.
		• measure capacity in uniform non-standard units • understand bar charts where one square represents two units.
		• have a sense of how much one litre and half a litre are.
		• draw block graph where one square represents two units • recognise that capacity is measure in litres and in millilitres.
Mental multiplication and division **(MMD)**; Fractions, ratio and proportion **(FRP)**	Double multiples of 10 and 5 (answers less than 100); double 2-digit numbers ending in 1, 2, 3 or 4 (answers less than 100); find a quarter of numbers up to 40 by halving twice; begin to find 3/4 of numbers; find 1/2 1/4 and 1/3 of amounts (sharing); find patterns	• double multiples 10 and 5 (answers less than 100).
		• double 2-digit numbers ending in 1, 2, 3 or 4 (answers less than 100).
		• find a quarter of numbers up to 40 by halving twice (whole number answers); begin to find ¾ of amounts.
		• find half, third and a quarter of numbers of objects.
		• find a third of a number of objects by sharing between three.
Summer 2		
Number and place-value **(NPV)**; Measurement **(MEA)**; Mental addition and subtraction **(MAS)**	Revise place-value in 2-digit numbers; understand place-value in numbers between 100 and 200; understand place-value of 3-digit numbers (no zeros and then including zeros in the 10s and 1s places); record amounts of money using £.p notation	• subtract by counting back in tens and ones • use known number facts to subtract ones e.g. 8 – 4 = 4 as 4 + 4 = 8, etc.
		• count back in tens and ones to solve subtraction (2-digit – 2-digit) • use number facts to help add and subtract ones • use addition to check subtraction of 2-digit numbers.
		• add several 1-digit numbers using number facts to help • know number bonds to 5, 6, 7, 8, 9, 10, 11 & 12 and doubles to double 15.

		• find totals of notes and coins • record amounts of money using £.p notation.
		• record amounts of money using £.p notation.
Mental multiplication and division **(MMD)**; Number and place-value **(NPV)**	Count in 3s, recognising numbers in the 3x table; write multiplications to go with arrays; understand that multiplication is commutative; understand that division and multiplication are inverse operations; solve divisions as multiplications with a missing number; count in 2s, 3s, 5s and 10s to solve divisions	• begin to count in 3s • begin to solve multiplications in 3x table by counting in 3s.
		• understand the × sign • begin to know the 3 times-table • begin to know multiplication is commutative (it can be done in any order).
		• begin to know the 3 times-table • begin to know multiplication is commutative (it can be done in any order).
		• chn solve missing number multiplications by counting up in steps.
		• solve and record divisions.
Measurement **(MEA)**	Measure and estimate lengths in centimetres; tell the time involving multiples of 5 minutes past the hour and 5 minutes to the hour; tell time to five minutes; say the time 10 minutes later	• begin to measure in centimetres • have a rough idea of how long 10cm is.
		• use a 30cm ruler to measure lengths to the nearest centimetre.
		• know that there are 60 minutes in an hour • tell time to ¼ hour, and multiples of 5 past the hour on analogue and digital clocks.
		• tell the time involving multiples of 5 minutes past the hour • begin to tell times with multiples of 5 to the hour.
		• read and write times to o'clock, half past and quarter hour on analogue and digital clocks.
Mental multiplication and division **(MMD)**; Written addition and subtraction **(WAS)**; Mental addition and subtraction **(MAS)**	Partition to add two 2-digit numbers; find a difference between two 2-digit numbers; multiply two numbers using counting in steps; solve division problems by counting in steps of 2, 3, 5 and 10	• add two 2-digit numbers using partitioning • understand the value of the digits in a 2-digit number.
		• begin to find a difference by counting up from one 2-digit number to another • begin to use an empty number line to perform subtractions.
		• use clever counting in 2s, 5s and 10s to work out multiplications • begin to use clever counting in 3s and 4s to work out multiplications • identify patterns and use these to predict answers • use mathematical reasoning to explain patterns.
		• use clever counting to work out division • understand that multiplications can also be written as divisions.
		• use counting in 2s, 5s and 10s to solve word problems involving multiplication and division.
		• compare 3-digit numbers in the context of temperatures • find small differences in temperature • read a scale with only multiples of 5 labelled (marks for other numbers).
		• find complements to 100.

		• know what each digit represents in 3-digit numbers and numbers between 100 and 200 • compare numbers using place value.
		• write 3-digit numbers and know what each digit stands for.
		• write 3-digit numbers and know what each digit stands for • use zero as a place holder.