Long Term Planning

National Curriculum Objectives and Small steps Overview

Year 2

Term 1 (You will also need to begin the addition from Term 2 in the last week)

Unit	Place Value to 100	Number Bonds to 20 and 100 including inverse operations, Adding and subtracting a 2 digit number and ones
National Curriculum Objectives	Pupils should be taught to: • count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward • recognise the place value of each digit in a two-digit number (10s, 1s) • 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 • To know 10x table multiplication and division facts.	• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot • adding 3 one-digit numbers Add numbers using concrete objects, pictorial representations, and mentally, including: • a two-digit number and 1s Subtract numbers using concrete objects, pictorial representations, and mentally, including: • a two-digit number and 1s • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems 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 methods
Small Steps Guidance	➢ Numbers to 20 ➢ Count objects to 100 by making 10s ➢ Recognise 10s and 1s ➢ Use a place value chart ➢ Partition numbers to 100 ➢ Read and write numbers to 100 in words and numerals ➢ Represent numbers to 100 ➢ Partition into tens and ones. (expanded form) ➢ Partition numbers in different ways ➢ 10s on a number line to 100 ➢ 10s and 1s on a number line ➢ Compare objects/numbers to 100 ➢ Order numbers to 100 ➢ Revise counting in 2s 5s and 10s from Year 1. ➢ Count in 3s	➢ Bonds to 10 ➢ Fact families- addition and subtraction bonds to 20 ➢ Related calculations- inverse ➢ Add 3 single digit numbers (finding pairs of facts they know) ➢ Relate number facts to 10 to number facts to 100 ➢ Number bonds to 100 ➢ Inverse calculations with bonds to 100 ➢ Add and subtract 1s ➢ Add by making 10 (brdging) ➢ Add to the next ten ➢ Add across ten (Subtracting bridging will take place before the subtraction unit so that the objectives flow)

Term 2 (Unit 1 is a continuation from Term 1)

Unit	Number Bonds to 20 and 100 including inverse operations, Adding and subtracting a 2 digit number and ones	Multiplication and Division 1
National Curriculum Objectives	• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot • adding 3 one-digit numbers Add numbers using concrete objects, pictorial representations, and mentally, including: • a two-digit number and 1s Subtract numbers using concrete objects, pictorial representations, and mentally, including: • a two-digit number and 1s • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems 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 methods	• 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 (×) and equals (=) signs • solve problems involving multiplication using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
Small Steps Guidance	➢ Bonds to 10 ➢ Fact families- addition and subtraction bonds to 20 ➢ Related calculations- inverse ➢ Add 3 single digit numbers (finding pairs of facts they know) ➢ Relate number facts to 10 to number facts to 100 ➢ Number bonds to 100 ➢ Inverse calculations with bonds to 100 ➢ Add and subtract 1s ➢ Add by making 10 (bridging) ➢ Add to the next ten ➢ Add across ten ➢ 10 more than any 2 digit number ➢ Add 10s ➢ Subtract by making 10 ➢ Subtract across a ten ➢ Subtract from a ten	➢ Counting in 2s 5s 10s throughout ➢ Recognise equal groups ➢ Making equal groups ➢ Add equal groups ➢ Introduce the multiplication symbol ➢ Multiplication sentences ➢ Use arrays. ➢ Make equal groups- grouping (if no time for this then start the next unit with it) ➢ Make equal groups – sharing

Term 1 and 2 Unit 3 1 day a week

Unit 3	2D and 3D shape
National Curriculum Objectives	Pupils should be taught to: • 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
Small Steps Guidance	➢ Recognise 2D shape names ➢ Count side on 2D shapes ➢ Count vertices on 2D shapes ➢ Draw 2D shapes ➢ Lines of symmetry ➢ Using lines of symmetry to complete shapes. ➢ Sort 2D shapes ➢ Recognise 3D shape names ➢ Count faces and recognise the shape of them (link to 2D shape) ➢ Count vertices in 3D shapes ➢ Count edges in 3D shapes Sort 3D shapes

Term 3

Unit	Multiplication and Division Continued	Addition and Subtraction 2 (this will continue into Term 4)
National Curriculum Objectives	• 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 (×) and equals (=) signs • solve problems involving multiplication using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: • a two-digit number and 1s • a two-digit number and 10s • 2 two-digit numbers Solve problems with addition using concrete objects and pictorial representations, including those involving numbers, quantities and measures • applying their increasing knowledge of mental and written methods
Small Steps Guidance	Ensure concepts taught before the break are complete and solid: ➢ Use arrays. ➢ Make equal groups- grouping (if no time for this then start the next unit with it) ➢ Make equal groups – sharing Then teach: ➢ The 10 times table ➢ Divide by 10 ➢ The 2 times table ➢ Divide by 2 ➢ Doubling and Halving ➢ Odd and Even numbers ➢ The 5 times table ➢ Divide by 5.	Addition method ➢ Add 2 digit and 1 digit written methods – see calc policy) ➢ Add 2 2 digit number written methods (see cal. Policy) ➢ Bonds to 100 (tens and ones- 65 + 35) ➢ Solve word problems with addition. Subtraction method ➢ Subtract 2 digit and 1 digit written methods – see calc policy) ➢ Subtract 2 2 digit number written methods (see cal. Policy) ➢ Subtraction word problems. Word problems ➢ Mixed addition and subtraction – which method do I choose? ➢ Inverse relationships (bar modelling, part whole, calculation families) ➢ Compare calculations (including inverse operations) ➢ Missing numbers (draw on bar modelling and inverse)

Unit 3- 1 day a week

Unit	Measurement – Height and Length Including addition and subtraction, multiplication and division
National Curriculum Objectives	• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm)to the nearest appropriate unit, using rulers and scales • compare and order lengths and record the results using >, < and = *Solve problems applying the mental and written methods learnt in Addition, Subtraction, Multiplication and Division* *Apply understanding of fractions of number when looking at measurements.*
Small Steps Guidance	➢ Measure in cm ➢ Measure in m ➢ Compare lengths and heights ➢ Order lengths Solve problems using addition, subtraction and fractions of length.

Term 4

Unit	Inverse Operations	Money
National Curriculum Objectives	• calculate mathematical statements for division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 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 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 • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change *Apply the addition and subtraction methods taught when solving problems*
Small Steps Guidance	➢ Use arrays to relate multiplication and division facts for 5x 10x tables. ➢ Missing number problems including bar modelling.	➢ Recognise coins and notes (from Year 1) ➢ Count money pence and pounds ➢ Count money notes and coins ➢ Select money ➢ Make the same amount ➢ Compare money <>= ➢ Find the total ➢ Find the difference ➢ Give change ➢ Two step problems involving money

Unit 3 – 1 day a week

Unit	Measurement Mass and Capacity Include addition and subtraction
National Curriculum Objectives	• choose and use appropriate standard units to estimate and mass (kg/g); capacity (litres/ml) to the nearest appropriate unit, using scales, and measuring vessels • compare and order mass, volume/capacity and record the results using >, < and = ***Solve problems applying the mental and written methods learnt in Addition, Subtraction, Multiplication and Division*** ***Apply understanding of fractions of number when looking at measurements.***
Small Steps Guidance	Revise language from Year 1 ➢ Compare mass ➢ Measure mass (g) ➢ Measure mass (kg) ➢ Solve problems with mass including 4 operations. ➢ Revise capacity from Year 1 ➢ Compare volume ➢ Millilitres ➢ Litres ➢ Solve problems with capacity and volume including 4 operations

Term 5

Unit	Fractions of Shape and Number
National Curriculum Objectives	Pupils should be taught to: • 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 • write simple fractions, for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ •
Small Steps Guidance	**White Rose Spring Unit 4** ➢ Make equal parts ➢ Recognise half ➢ Find half ➢ Recognise quarter ➢ Find quarter ➢ Recognise a third ➢ Find a third ➢ Unit fractions ➢ Non- unit fractions ➢ Equivalence $\frac{1}{2}$ and $\frac{1}{4}$ ➢ Find $\frac{3}{4}$ ➢ Count in fractions

Unit	Temperature	Time (this will continue to Term 6
National Curriculum Objectives	• choose and use appropriate standard units to estimate and measure temperature (°C); to the nearest appropriate unit, using rulers, thermometers • *Apply addition and subtraction skills when solving problems which require difference and total.*	• 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
Small Steps Guidance	➢ Temperature – scales 2 5s and 10s ➢ Solve problems involving temperature and scales.	**Whiterose Summer Unit 4'** ➢ Telling the time to the hour ➢ Telling the time to half past ➢ Telling the time past the hour to half past (5 past, 10 past , quarter past, 20 past, 25 past) ➢ Tell the time to the hour (5 to, 10 to quarter to 20 to, 25 to ➢ Writing time ➢ Hours and Days ➢ Calculating and comparing durations of time

Term 6

Unit	Position and Direction	Statistics
National Curriculum Objectives	Pupils should be taught to: • order and arrange combinations of mathematical objects in patterns and sequences • 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 quarter, half and three-quarter turns (clockwise and anti-clockwise) •	• 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 • *Apply addition and subtraction skills when solving problems which require difference and total.*
Small Steps Guidance	White Rose Summer ➢ Describe position and direction from year 1 ➢ Describe movement ➢ Describe turns ➢ Describe movement and turns Make patterns with shapes	➢ Make tally charts ➢ Draw pictograms (single unit representation) ➢ Interpret pictograms (single unit) ➢ Draw pictograms (2 5 and 10) ➢ Interpret pictograms (2, 5 and 10) ➢ Block diagrams ➢ Solve problems involving block diagrams which involve difference and total

Unit 1 day a week (Continue time)

Unit	Time (this will continue to Term 6
National Curriculum Objectives	• 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
Small Steps Guidance	**Whiterose Summer Unit 4'** ➢ Telling the time to the hour ➢ Telling the time to half past ➢ Telling the time past the hour to half past (5 past, 10 past , quarter past, 20 past, 25 past) ➢ Tell the time to the hour (5 to, 10 to quarter to 20 to, 25 to ➢ Writing time ➢ Hours and Days ➢ Calculating and comparing durations of time