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Year 2 – Medium Term Plan

Guidance

- The Units below **MUST** be taught in this order.
- Use the **Meridian calculation policy**.
- Complete the summative assessments at the times stated.
- Formally assess the children's understanding continuously to inform **instant interventions** and **adapt** lessons to meet their needs.
- There is **additional time** built into the units for teachers to break one lesson into two, add in additional lessons, carry out **intervention or enrichment lessons** or do anything else as needed for their class.
- Any time left at the end of each term should be used for **closing the gap** and giving children the opportunity to **apply** their learnt skills to a real-life context, a shop, an estate agent, a car salesroom, a factory, planning a holiday etc. and open-ended investigations.
- Lesson starters may be used for Mastering Number or to consolidate previous learning in **number**, **shape** and **measure**. Initially, these will be used to **apply skills learnt from Year 1** until the subject areas are covered in Year 2.

Subject Knowledge Support

White Rose Schemes of Work - Maths resources for teachers | White Rose Maths

NCETM Subject Knowledge Audits Primary Subject Knowledge Audit | NCETM

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Autumn			
Place Value (3-4 weeks)	**Addition and Subtraction (4-5 weeks)**	**Statistics (2 Weeks)**	**Multiplication and Division (4 weeks across Autumn and Spring) (2 weeks)**
National Curriculum Statements: ♣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. ♣count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward **Lesson sequence:** 1. L.P: To Count objects to 100 by making 10. (Starter numbers to 20). Explore - How Many? (maths.org) 2. L.P: To Recognise tens and ones. 3. L.P: To represent numbers to 100 (Practical) 4. L.P: To represent numbers on a place value chart. 5. L.P: To Partition numbers to 100. 6. L.P: To flexibly partition numbers to 100. Explore - Two-digit Targets (maths.org) 7. L.P: To identify and position 10s on number line to 100. 8. L.P: To identify and position 10s and 1s on number line to 100. 9. L.P: To estimate numbers on a number line. 10. L.P: To compare objects and numbers 11. L.P: To order objects and numbers. 12. L.P: To count in 2s. 13. L.P: To count in 5s. Explore - How Would We Count? (maths.org) 14. L.P: To count in 3s. 15. L.P: To count in 2s, 3s, 5s. 16. L.P: To count in 10s from any given number.	**National Curriculum Statements:** ♣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. Lesson sequence: (Make from for fluency test) 1. L.P: To calculate number bonds to 10. 2. L.P: to find addition and subtraction bonds within 20. Explore - Digit Addition (maths.org) 3. L.P: To use related facts. 4. L.P: To calculate number bonds to 100. 5. L.P: To add and subtract 1s. 6. L.P: To add by making 10. 7. L.P: To add 3 1-digit numbers. 8. L.P: To add to the next 10	**National Curriculum Statements:** ♣ 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. **Lesson sequence:** 1. L.P: To explore data. 2. L.P: To understand and make tally charts. 3. L.P: To understand and use simple tables. 4. L.P: To understand and interpret block diagrams. 5. L.P: To understand, draw understand and interpret pictograms (1-1). 6. L.P: To draw pictograms (2, 5, 10). 7. L.P: To interpret pictograms (2, 5, 10). 8. L.P: To draw and interpret pictograms (3s- revisit counting in 3s).	National Curriculum Statements: ♣ 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. **Lesson Sequence:** 1) L.P: To investigate odd numbers. How Odd (maths.org) 2) L.P: To recognise and make equal groups. 3) L.P: To understand multiplication as repeated addition. 4) L.P: To write multiplication sentences using the X symbol. 5) L.P: To write multiplication sentences from pictures.

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Spring

Multiplication and Division (4 weeks across Autumn and Spring) (2 weeks)	Fractions (3-4 weeks)	Money (2-3 weeks)	Geometry - Properties of shapes (2-3 weeks)
National Curriculum Statements: ♣ 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. 1. L.P: To explain and represent multiplication when a group contains 0 or 1. 2. L.P: To understand multiplying by 2 as doubling. Up to 12 x 2. 3. L.P: To double 2-digit numbers. Up to double 50. 4. L.P: To relate doubling to halving. 5. L.P: To understand diving by 2 as halving. Up 24 ÷ 2. 6. L.P: To halve numbers up to 100. 7. L.P: To identify and explain the relationship between the 5 and 10 times tables. 8. L.P: To understand the inverse (x and ÷). 9. L.P: To use 5 times table facts to find the quotient. 10. L.P: To use 10 times table facts to find the quotient.	**National Curriculum Statements:** ♣ recognise, find, name and write fractions 1/3 , 1/4 , 2/4 and 3/4 of a length, shape, set of objects or quantity ♣ write simple fractions for example 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2 . 1) LP: To identify parts and whole. 2) LP: To identify equal and unequal parts. 3) LP: To recognise a half of a shape 4) LP: To find a half of a number (lots of fluency practise) 5) LP: To recognise a quarter of a shape. 6) LP: To find a quarter of a number. 7) LP: To recognise a third of a shape 8) LP: To find a third of a number. 9) LP: To find the whole. 10) LP: To identify unit fractions. 11) LP: To identify non-unit fractions. 12) LP: To recognise the equivalence of a half and 2 quarters. 13) LP: To identify 2 quarters of a number and a shape. 14) LP: To recognise 3 quarters 15) LP: To find 3 quarters. 16) LP: To count in fractions up to a whole.	.**National Curriculum statements:** ♣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 1) LP: To count money in pence. 2) LP: To count money in pounds (notes and coins). 3) LP: To count money in pounds and pence. 4) LP: To choose notes and coins. 5) LP: To make the same amount. 6) LP: To compare amounts of money. 7) LP: To calculate with money. 8) LP: To make a pound. 9) LP: To find change. (2 lessons?) 10) LP: To solve two-step problems.	**National Curriculum Statements :** ♣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 1) LP: To name 2d and 3D shapes. 2) LP: To count sides on 2D shapes. 3) LP: To count vertices on 2D shapes. 4) LP: To draw and label 2D shapes. 5) To identify lines of symmetry. 6) To use lines of symmetry to complete shapes. 7) To sort 2d shapes. 8) To count faces on 3D shapes. 9) To count edges on 3D shapes. 10) To count vertices on 3D shapes. 11) To sort 3D shapes 12) To make patterns with 2D and 3D shapes.

11. L.P: To solve problems using multiplication and division facts for 5s and 10s. 12. L.P: To solve word problems in context. (multiplication and division)21 13. L.P: To solve word problems in context. (multiplication and division) 14. Number Detective (maths.org) 15. LP: To recall 2, 5 and 10 times tables (TTRS lesson)			

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Summer				
Addition and Subtraction (re-visit) **10 lessons** Addition and subtraction of two-digit numbers (2) | NCETM	**Measures Length and Height** **Measures weight, capacity (4 weeks)** **20 lessons max** Sense of measure – capacity, volume, mass | NCETM	**Position and direction (1 week)** **5 lessons max** Position and direction | NCETM	**Time (1-2 weeks)** **10 lessons max** Time | NCETM	
National Curriculum Statements: 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 recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. Addition and Subtraction building to a method: Addition and subtraction of two-digit numbers (2) | NCETM 1. L.P: To add on multiples of 10. 36 + 30, 78 + 20 2. L.P: To use related number bonds within 10 facts. 5 + 4 = 9 so 65 + 4 = 69 3. L.P: To add 2 digit numbers. 23 + 14, 61 + 28	**National Curriculum Statements:** Pupils should be taught to: ♣ 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 = **Length and Height** 1. To measure in cm 2. To measure in m 3. To compare length and height 4. To order length and height 5. To solve addition and subtraction problems (one step) 6. To solve addition and subtraction problems two-step. **Mass** 1. To compare mass 2. To measure in g 3. To measure in kg	**National Curriculum Statements:** • 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) **Position and Direction** 1. To use the language of position 2. To describe movement 3. To describe turns (quarter turns, half turns and full turns)	**National Curriculum Statements:** ♣ 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. **Time** 1. To use time language to sequence (days of the week and months and seasons of the year) 2. To read and draw o'clock times 3. To read and draw half past times 4. To read and draw quarter past times 5. To read quarter to times 6. To read the time in 5-minute intervals 7. To draw the time in 5-minute intervals 8. To solve problems involving minutes in an hour 9. To solve problems involving hours in a day	

4. L.P: To use related number bond to 10 facts. 2 + 8 = 10 so 72 + 8 = 80 5. L.P: To re-call number bonds within 20. 7 + 8, 5 + 6, 9 + 4 etc 6. L.P: To use related number bonds within 20. 67 + 8 – make the next 10 and then add on or partition and add the ones first? 7. L.P: To add 2 digit numbers. 35 + 47 – What method? 8. L.P: To add 2 digit numbers. Intervention lesson – early rehearsal question and then support group and challenges for the rest. 9. L.P: To link addition and subtraction facts. Part, part, whole fact families 10. L.P: To subtract multiples of 10. 14 – 10, 24 – 10, 24 – 20, 34 – 20 etc 11. L.P: To use related number bonds within 10 facts. 5 - 4 = 1 so 65 - 4 = 61 12. L.P: To subtract 2 digit numbers. 24 - 11, 69 - 28 13. L.P: To use related number bond to 10 facts. 10 - 8 = 2 so 70 - 8 = 62 14. L.P: To re-call number bonds within 20.	4. To solve addition and subtraction problems (one step) 5. To solve addition and subtraction problems (two-steps) 6. To compare volume and capacity (practical lesson) **Capacity** 1. To measure in ml 2. To measure in l 3. To solve addition and subtraction problems (one-steps) 4. To solve addition and subtraction problems (two-steps) 5. To measure temperature 6. To read scales (see TAF) 7. To solve problems involving measures (combine all)	4. To describe shape patterns with turns (practical lesson) 5. To describe shape patterns with turns		

12 – 4, 16 – 8, 17 - 9 partition the subtrahend to get back to the next ten first. 15. L.P: To use related number bonds within 20. 67 - 9 partition the subtrahend to get back to the next ten first. 16. L.P: To subtract 2-digit numbers. 65 – 38 What method? 17. L.P: To subtract 2 digit numbers. Intervention lesson – early rehearsal question and then support group and challenges for the rest.				

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