

WALT: We Are Learning To
WAP: We Are Practising

Spring 1: Londinium

Week	Unit	National Curriculum objectives Possible lesson objectives	White Rose Maths (WRM) 'small steps'	Models and images representing number Key vocabulary	Reasoning (in addition to WRM questions)	Fluency
1	Number Calculation: Multiplication and division (1)	<ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 use place value, known and derived facts to multiply and divide mentally, including multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit <p>WAL the 11 times table WAL the 12 times table WALT multiply three numbers together WALT find and use factor pairs WALT use arrays to multiply larger numbers efficiently</p>	<ul style="list-style-type: none"> 11 and 12 times table Multiplying three numbers Factor pairs Efficient multiplication 	Base-10, counters, cubes, bar model, array Introduce Factor bug, grid model (<i>via arrays</i>)	<p>Making links Eggs are bought in boxes of 12. I need 140 eggs; how many boxes will I need to buy?</p> <p>Making links How can you use factor pairs to solve this calculation? 13×12</p> <p>Missing numbers $72 = \square \times \square$ Which pairs of numbers could be written in the boxes?</p> <p>NRICH Remainders NRICH Shape Times Shape</p>	<p>Mental calculation – 4 operations</p> <p>Number facts: check 6 times table and division</p>
2		<ul style="list-style-type: none"> multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit. <p>WALT choose and use efficient methods to multiply WAP using the column method to multiply 2-digit numbers WALT use the short multiplication method</p>	<ul style="list-style-type: none"> Written methods Multiply 2 digits by 1 digit (<i>WRM revision</i>) Multiply 2 digits by 1 digit Multiply 3 digits by 1 digit Divide 2 digits by 1 digit (2) (<i>WRM revision</i>) 	Empty numberline, base-10, part-whole model, place value counters, place value chart, column layout, bar model	<p>How close can you get? $\square \square \square \times 7$ Using the digits 3, 4 and 6 in the calculation above how close can you get to 4500? What is the largest product? What is the smallest product?</p> <p>Size of an answer Will the answer to the following calculations be greater or less than 300? $152 \times 2 =$ $78 \times 3 =$ $87 \times 3 =$</p>	<p>Bonds and subtraction facts to 10, 100 and 1000</p> <p>Number facts: revise 9 times table and division</p>

	WALT use the column method to multiply 3-digit numbers WAP using partitioning to divide			$4 \times 74 =$ Can you answer these without written calculations? NRICH Light the Lights Again	
3	<ul style="list-style-type: none"> practise to become fluent in the formal written method of short division with exact answers [non-statutory] solve problems involving multiplying and adding, including integer scaling problems and harder correspondence problems such as n objects are connected to m objects. <p>WALT divide by sharing into equal groups WAP division as repeated subtraction WALT divide with remainders WALT divide 3-digit numbers WALT solve problems involving correspondence</p>	<ul style="list-style-type: none"> Divide 2 digits by 1 digit (1) Divide 2 digits by 1 digit (3) (WRM revision) Divide 2 digits by 1 digit (2) Divide 3 digits by 1 digit Correspondence problems 	Place value chart, place value counters, part-whole model, empty numberline	Do, then Explain If 20 children have 40 hands between them, how many hands would 200 children have between them? What about 2000 children? Explain your answers Odd One Out Which calculation is the odd one out? Explain your answer. $84 \div 4$ $172 \div 4$ $84 \div 6$ $172 \div 6$ NRICH Remainders (especially Challenge q.) NRICH The Remainders Game	Written methods for addition and subtraction Number facts: revise 7 times table and division
4	Measurement Area				
	<ul style="list-style-type: none"> find the area of rectilinear shapes by counting squares <p>WALT understand the concept of area WALT find the area of a shape by counting squares WALT create rectilinear shapes of a given area WALT reason about the area of different shapes</p>	<ul style="list-style-type: none"> What is area? Counting squares Making shapes Comparing area 	Grid	Always, sometimes, never If you double the area of a rectangle, you double the perimeter. NRICH Torn Shapes NRICH Twice as Big?	Telling the time and calculating duration Number facts: 11 times table and division
5	Number Fractions (1)				
	<ul style="list-style-type: none"> extend the use of the number line to connect fractions, numbers and measures [non-statutory] make connections between fractions of a length, of a shape and as a representation of one whole or set of quantities [non-statutory] <p>WAL the difference between unit and non-unit fractions WALT explain what a fraction is WAL different ways of representing a fraction WAP working with tenths</p>	<ul style="list-style-type: none"> Unit and non-unit fractions (WRM revision) What is a fraction? Tenths (WRM revision) Count in tenths (WRM revision) 	Grid, array, 10-frame, part-whole model, counting stick, place value counters	Prove it A non-unit fraction is always greater than a unit fraction with the same denominator (you might want to draw something) Give an example of a fraction that is more than a half but less than a whole. Now another example that no one else will think of. Explain how you know the fraction is more than a half but less than a whole (draw an image)	Calculating area and perimeter Number facts: 12 times table

	WAP counting in tenths			Spot the mistake 6/10 7/10 8/10 9/10 10 Explain your answer	
6	<ul style="list-style-type: none"> recognise and show, using diagrams, families of common equivalent fractions practise counting using simple fractions [...], both forwards and backwards [non-statutory] <p>WAP using concrete resources and numberlines to show equivalent fractions WALT use a fraction wall to show equivalent fractions WALT calculate equivalent fractions WALT split a fraction greater than 1 into wholes and parts WALT count with fractions greater than 1</p>	<ul style="list-style-type: none"> Equivalent fractions (2) (<i>WRM revision</i>) Equivalent fractions (1) Equivalent fractions (2) Fractions greater than 1 Count in fractions 	Cuisenaire rods, paper strips, numberline, fraction wall, bar model, part-whole model, cubes	Odd one out. Which is the odd one out in each of these trios? $\frac{3}{4}$ $\frac{9}{12}$ $\frac{4}{6}$ $\frac{9}{12}$ $\frac{10}{15}$ $\frac{2}{3}$ Why? NRICH Fractional Triangles NRICH Fractional Wall NRICH Bryony's Triangle	Mental multiplication and division Number facts: 12 times table division