Maths Medium Term Plan

Year 5 2024-2025

Autumn 1

Link to WRM Planning: https://whiteroseeducation.com/resources?year=year-5-new&subject=maths

Week	Week Beginning	Unit	Small Steps	N.C. Links	Enriching our Mathematicians	Notes / AOI
1-8		Maths Skills	Arithmetic focus or numbers, multiples and factors etc. 30 mins			2 times a week
1-8		NSM Times Tables Programme	Follow the updated TBPS programme – see MTP folder.			5 times a week
1 2 3	2-9-24 (2-9-24 & 3-9-24 – INSET) 9-9-24 16-9-24	Number: Place Value	• **Step 2:** Numbers to 10,000 • **Step 3:** Numbers to 100,000. • **Step 4:** Numbers to 1,000,000. • **Step 5:** Read and write numbers to 1,000,000 • **Step 6:** Powers of 10 • **Step 7:** 10/100/1,000/10,000/100,000 more or less • **Step 8:** Partition numbers to 1,000,000 • **Step 9:** Number line to 1,000,000 • **Step 10:** Compare and order numbers to 100,000 • **Step 11:** Compare and order numbers to 1,000,000 • **Step 12:** Round to the nearest 10, 100 or 1,000 • **Step 13:** Round within 100,000 • **Step 14:** Round within 1,000,000	• Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. • Count forwards or backwards in steps of powers of 10 for any given number up to 1000000. • Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000. • Solve number problems and practical problems that involve all of the above. • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	NRICH Round the Three Dice https://nrich.maths.org/10436 Puzzles and Problems Y5 and Y6 – Make 5 Numbers	

			• **Step 1:** Roman numerals to 1,000.			
4 5	23-9-24 30-9-24	Number: Addition and Subtraction	• **Step 1:** Mental strategies • **Step 2:** Add whole numbers with more than 4-digits. • **Step 3:** Subtract whole numbers with more than 4-digits • **Step 4:** Round to check answers • **Step 5:** Inverse operations (addition and subtraction) • **Step 6:** Multi-step addition and subtraction problems • **Step 7:** Compare calculations • **Step 8:** Find missing numbers.	• Add and subtract numbers mentally with increasingly large numbers. • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	NRICH Arrange the Digits https://nrich.maths.org/1976	Check Calculation Strategy Policy Language – addend and sum; minuend, subtrahend and difference (see Maths Language – Parts of 4-Op)
6 7 8	7-10-24 14-10-24 21-10-24	Number: Multiplication and Division A	• **Step 1:** Multiples. • **Step 2:** Common multiples • **Step 3:** Factors • **Step 4:** Common factors. • **Step 5:** Prime numbers. • **Step 6:** Square numbers. • **Step 7:** Cube numbers • **Step 8:** Multiply by 10, 100 and 1000. • **Step 9:** Divide by 10, 100 and 1000. • **Step 10:** Multiples of 10, 100 and 1000.	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers. • Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. • Establish whether a number up to 100 is prime and recall prime numbers up to 19.	NRICH Multiply Multiples 1 https://nrich.maths.org/10421	Check Calculation Strategy Policy Language – multiplier, multiplicand, factor and product; dividend, divisor ad quotient (see Maths Language – Parts of 4-Op)

Maths Medium Term Plan

Year 5 2024-2025

Autumn 2

Week	Week Beginning	Unit	Small Steps	N.C. Links	Enriching our Mathematicians	Notes / AOI
1-7		Maths Skills	Arithmetic focus or numbers, multiples and factors etc. 30 mins			2 times a week
1-7		NSM Times Tables Programme	Follow the updated TBPS programme – see MTP folder.			5 times a week
1 2 3 4	4-11-24 11-11-24 18-11-24 25-11-24	Number: Fractions A	•**Step 1:** Find fractions equivalent to a unit fraction •**Step 2:** Find fractions equivalent to a non-unit fraction •**Step 3:** Recognise equivalent fractions •**Step 4:** Convert improper fractions to mixed numbers •**Step 5:** Convert mixed numbers to improper fractions •**Step 6:** Compare fractions less than 1 •**Step 7:** Order fractions less than 1 •**Step 8:** Compare and order fractions greater than 1 •**Step 9:** Add and subtract fractions with the same denominator •**Step 10:** Add fractions within 1 •**Step 11:** Add fractions with total greater than 1 •**Step 12:** Add to a mixed number	• Compare and order fractions whose denominators are multiples of the same number. • Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example ⅖ + ⅘ = $^{6}/_{5}$ = 1⅕]. • Add and subtract fractions with the same denominator and denominators that are multiples of the same number. • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • Read and write decimal numbers as fractions [for example 0.71 = $^{71}/_{100}$].	Use Cuisenaire throughout this unit NRICH Rectangle Tangle https://nrich.maths.org/1048 NRICH A4 Fraction Addition https://nrich.maths.org/12937 NRICH Fractions in a Box https://nrich.maths.org/1103	See Notes for Fractions

			• **Step 13:** Add two mixed numbers • **Step 14:** Subtract fractions • **Step 15:** Subtract from a mixed number • **Step 16:** Subtract from a mixed number – breaking the whole • **Step 17:** Subtract two mixed numbers	• Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.		
5 6	2-12-24 9-12-24	Measurement: Area and Perimeter	• **Step 1:** Perimeter of rectangles • **Step 2:** Perimeter of rectilinear shapes • **Step 3:** Perimeter of polygons • **Step 4:** Area of rectangles • **Step 5:** Area of compound shapes • **Step 6:** Estimate area	• Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. • Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm^2) and square metres (m^2), and estimate the area of irregular shapes.	Holes Area and Perimeter Problem if it fits here (English link)	
7	16-12-24	Number: Negative Numbers	• **Step 1:** Understand negative numbers • **Step 2:** Count through zero in 1s • **Step 3:** Count through zero in multiples • **Step 4:** Compare and order negative numbers • **Step 5:** Find the difference	• Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero	NRICH Tug Harder https://nrich.maths.org/5898	

Maths Medium Term Plan

Year 5 2024-2025

Spring 1

Week	Week Beginning	Unit	Small Steps	N.C. Links	Enriching our Mathematicians	Notes / AOI
1-6		Maths Skills	Arithmetic focus or numbers, multiples and factors etc. 30 mins			2 times a week
1-6		NSM Times Tables Programme	Follow the updated TBPS programme – see MTP folder.			5 times a week
1	6-1-25	Number: Addition and Subtraction	Retrieval Word Problems			Check Calculation Strategy Policy Language – addend and sum; minuend, subtrahend and difference (see Maths Language – Parts of 4-Op)
2 3 4	13-1-25 20-1-25 27-1-25	Number: Multiplication and Division B	• **Step 1:** Multiply up to a 4-digit number by a 1-digit number • **Step 2:** Multiply a 2-digit number by a 2-digit number (area model) • **Step 3:** Multiply a 2-digit number by a 2-digit number	• Multiply numbers up to 4 digits by a one-or two-digit number using a formal written method, including long multiplication for two-digit numbers. • Multiply and divide numbers mentally, drawing upon known facts.	NRICH Four Go https://nrich.maths.org/5633	Check Calculation Strategy Policy

			• **Step 4:** Multiply a 3-digit number by a 2-digit number • **Step 5:** Multiply a 4-digit number by a 2-digit number • **Step 6:** Solve problems with multiplication • **Step 9:** Divide with remainders • **Step 10:** Efficient division • **Step 11:** Solve problems with multiplication and division	• Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context. • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000. • Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}). • Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes. • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.		Language – multiplier, multiplicand, factor and product; dividend, divisor ad quotient (see Maths Language – Parts of 4-Op)
5 6	3-2-25 (7-2-25 – INSET) 10-2-25 (10-2-25 – INSET)	Statistics	• **Step 1:** Draw line graphs • **Step 2:** Read and interpret line graphs • **Step 3:** Read and interpret tables • **Step 4:** Two-way tables	• Solve comparison, sum and difference problems using information presented in a line graph. • Complete, read and interpret information in tables.		Work on timetables (Step 5) moved to a focus week on Time

Maths Medium Term Plan

Year 5 2024-2025

Spring 2

Week	Week Beginning	Unit	Small Steps	N.C. Links	Enriching our Mathematicians	Notes / AOI
1-6		Maths Skills	Arithmetic focus or numbers, multiples and factors etc. 30 mins			2 times a week
1-6		NSM Times Tables Programme	Follow the updated TBPS programme – see MTP folder.			5 times a week
1 2	24-2-25 3-3-25	Number: Fractions B	•**Step 1:** Multiply a unit fraction by an integer •**Step 2:** Multiply a non-unit fraction by an integer •**Step 3:** Multiply a mixed number by an integer •**Step 4:** Calculate a fraction of a quantity •**Step 5:** Fraction of an amount •**Step 6:** Find the whole •**Step 7:** Use fractions as operators	• Compare and order fractions whose denominators are multiples of the same number. • Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example ⅖ + ⅘ = $^{6}/_{5}$ = 1⅕]. • Add and subtract fractions with the same denominator and denominators that are multiples of the same number. • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • Read and write decimal numbers as fractions [for example 0.71 = $^{71}/_{100}$].	Use Cuisenaire throughout this unit NRICH Andy's Marbles https://nrich.maths.org/2421 NRICH Peaches Today, Peaches Tomorrow Peaches Today, Peaches Tomorrow... (maths.org)	See Notes for Fractions

				• Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.		
3 4 5	10-3-25 17-3-25 24-3-25	Number: Decimals and Percentages	•**Step 1:** Decimals up to 2 decimal places •**Step 2:** Equivalent fractions and decimals (tenths) •**Step 3:** Equivalent fractions and decimals (hundredths) •**Step 4:** Equivalent fractions and decimals •**Step 5:** Thousandths as fractions •**Step 6:** Thousandths as decimals •**Step 7:** Thousandths on a place value chart •**Step 8:** Order and compare decimals (same number of decimal places) •**Step 9:** Order and compare any decimals with up to 3 decimal places •**Step 10:** Round to the nearest whole number •**Step 11:** Round to 1 decimal place •**Step 12:** Understand percentages •**Step 13:** Percentages as fractions •**Step 14:** Percentages as decimals •**Step 15:** Equivalent fractions, decimals and percentages	• Read, write, order and compare numbers with up to three decimal places. • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Round decimals with two decimal places to the nearest whole number and to one decimal place. • Solve problems involving number up to three decimal places. • Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal. • Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.	Use Cuisenaire throughout this unit NRICH Matching Fractions, Decimals and Percentages https://nrich.maths.org/1249 Rounding Jigsaw rounding_rhombus_jigsaw.pdf (primaryresources.co.uk)	See Notes for Fractions
6	31-3-25	Geometry: Shape	•**Step 1:** Understand and use degrees •**Step 2:** Classify angles •**Step 3:** Estimate angles •**Step 4:** Measure angles up to 180° •**Step 5:** Draw lines and angles accurately •**Step 6:** Calculate angles around a point •**Step 7:** Calculate angles on a straight line •**Step 8:** Lengths and angles in shapes •**Step 9:** Regular and irregular polygons •**Step 10:** 3-D shapes **Continued in Summer 1**	• Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. • Use the properties of rectangles to deduce related facts and find missing lengths and angles. • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.		

				• Draw given angles and measure them in degrees. • Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) other multiples of 90°.		

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Summer 1

Week	Week Beginning	Unit	Small Steps	N.C. Links	Enriching our Mathematicians	Notes / AOI
1-5		Maths Skills	Arithmetic focus or numbers, multiples and factors etc. 30 mins			2 times a week
1-5		NSM Times Tables Programme	Follow the updated TBPS programme – see MTP folder.			5 times a week
1 2	21-4-25 (4 days) 28-4-25	Geometry: Shape	Continued from Spring 2			
3	5-5-25 (4 days)	Number: 4 Ops	Retrieval Word problems			Check Calculation Strategy Policy Language – addend and sum; minuend, subtrahend and difference; multiplier, multiplicand, factor and product;

						dividend, divisor ad quotient (see Maths
4 5	12-5-25 19-5-25 (World Maths Day – date tbc; 23-5-25 – INSET)	Geometry: Position and Direction	• **Step 1:** Read and plot coordinates • **Step 2:** Problem solving with coordinates • **Step 3:** Translation • **Step 4:** Translation with coordinates • **Step 5:** Lines of symmetry • **Step 6:** Reflection in horizontal and vertical lines	• Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.	NRICH Mirror Mirror https://nrich.maths.org/5458	

Maths Medium Term Plan

Year 5 2024-2025

Summer 2

Week	Week Beginning	Unit	Small Steps	N.C. Links	Enriching our Mathematicians	Notes / AOI
1-8		Maths Skills	Arithmetic focus or numbers, multiples and factors etc. 30 mins			2 times a week
1-8		NSM Times Tables Programme	Follow the updated TBPS programme – see MTP folder.			5 times a week
1 2 3	2-6-25 9-6-25 16-6-25	Number: Decimals	•**Step 1:** Use known facts to add and subtract decimals within 1 •**Step 2:** Complements to 1 •**Step 3:** Add and subtract decimals across 1 •**Step 4:** Add decimals with the same number of decimal places •**Step 5:** Subtract decimals with the same number of decimal places •**Step 6:** Add decimals with different numbers of decimal places •**Step 7:** Subtract decimals with different numbers of decimal places •**Step 8:** Efficient strategies for adding and subtracting decimals •**Step 9:** Decimal sequences •**Step 10:** Multiply by 10, 100 and 1,000 •**Step 11:** Divide by 10, 100 and 1,000 •**Step 12:** Multiply and divide decimals - missing values	• Read, write, order and compare numbers with up to three decimal places. • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Round decimals with two decimal places to the nearest whole number and to one decimal place. • Solve problems involving number up to three decimal places.	Use Cuisenaire throughout this unit	

4 5	23-6-25 30-6-25	Measurement: Converting Units of Measure	•**Step 1:** Kilograms and kilometres •**Step 2:** Millimetres and millilitres •**Step 3:** Convert units of length •**Step 4:** Convert between metric and imperial units	•Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml]. •Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.		
6	7-7-25	Measurement: Time	• (R) Telling the time to the minute • (R) Using a.m. and p.m. • (R) 24-hour clock • (R) Hours, minutes, seconds, years, months, weeks and days. • (R) Analogue to digital – 12- hour and 24-hour. •**Step 5:** Convert units of time (from Measurement: Converting Units of Measure) •**Step 5:** Read and interpret timetables (from Statistics unit)	• Complete, read and interpret information in tables including timetables. (from Statistics) • Solve problems involving converting between units of time.	NRICH The Time Is… https://nrich.maths.org/7384	
7	14-7-25	Measurement: Volume	•**Step 1:** Cubic centimetres •**Step 2:** Compare volume •**Step 3:** Estimate volume •**Step 4:** Estimate capacity	• Estimate volume [for example using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]. • Use all four operations to solve problems involving measure.	NRICH Making Boxes https://nrich.maths.org/89	
8	21-7-25 (2 days)	Consolidation				