ST PHILOMENA'S PRIMARY SCHOOL
MATHS MEDIUM TERM PLANNING YEAR 5
2026 - 2027

AUTUMN 1

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 1	Step 1	Roman numerals to 1,000	I can read and write Roman numerals to 1,000.	Know the values of I, V, X, L, C, D and M and how Roman numerals are formed.
	Step 2	Numbers to 10,000	I can understand and use numbers to 10,000.	Know the value of digits and how place value changes across powers of 10.
	Step 3	Numbers to 100,000	I can understand and use numbers to 100,000.	Know the value of digits and how place value changes across powers of 10.
	Step 4	Numbers to 1,000,000	I can understand and use numbers to 1,000,000.	Know the value of digits and how place value changes across powers of 10.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Read, write, order and compare numbers to at least 1,000,000; determine the value of each digit; count forwards or backwards in powers of 10; round numbers; read Roman numerals to 1,000 (M).			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 2	Step 5	Read and write numbers to 1,000,000	I can read and write numbers to 1,000,000.	Know the value of digits and how place value changes across powers of 10.
	Step 6	Powers of 10	I can use powers of 10 to understand place value.	Know the value of digits and how place value changes across powers of 10.
	Step 7	10/100/1,000/10,000/100,000 more or less	I can understand and use 10/100/1,000/10,000/100,000 more or less.	Know the key mathematical relationships and vocabulary needed to apply this learning accurately.
	Step 8	Partition numbers to 1,000,000	I can partition numbers to 1,000,000.	Know the value of digits and how place value changes across powers of 10.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Read, write, order and compare numbers to at least 1,000,000; determine the value of each digit; count forwards or backwards in powers of 10; round numbers; read Roman numerals to 1,000 (M).			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 3	Step 9	Number line to 1,000,000	I can understand and use number line to 1,000,000.	Know the value of digits and how place value changes across powers of 10.
	Step 10	Compare and order numbers to 100,000	I can compare and order numbers to 100,000.	Know the value of digits and how place value changes across powers of 10.
	Step 11	Compare and order numbers to 1,000,000	I can compare and order numbers to 1,000,000.	Know the value of digits and how place value changes across powers of 10.
	Steps 12-13	Round to the nearest 10, 100 or 1,000; round within 100,000	I can round to the nearest 10, 100 or 1,000; round within 100,000.	Know how the next place-value digit determines whether a number rounds up or down.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Read, write, order and compare numbers to at least 1,000,000; determine the value of each digit; count forwards or backwards in powers of 10; round numbers; read Roman numerals to 1,000 (M).			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 4	Step 14	Round within 1,000,000	I can round within 1,000,000.	Know how the next place-value digit determines whether a number rounds up or down.
	Step 1	Mental strategies	I can use efficient mental strategies for addition and subtraction.	Know the key mathematical relationships and vocabulary needed to apply this learning accurately.
	Step 2	Add whole numbers with more than four digits	I can add whole numbers with more than four digits.	Know how place value and exchanging support accurate addition.
	Step 3	Subtract whole numbers with more than four digits	I can subtract whole numbers with more than four digits.	Know how place value and exchanging support accurate subtraction.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Read, write, order and compare numbers to at least 1,000,000; determine the value of each digit; count forwards or backwards in powers of 10; round numbers; read Roman numerals to 1,000 (M). Add and subtract whole numbers with more than 4 digits using formal written methods; add and subtract mentally with increasingly large numbers; use rounding to check answers; solve multi-step problems.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 5	Step 4	Round to check answers	I can round to check answers.	Know how the next place-value digit determines whether a number rounds up or down.
	Step 5	Inverse operations (addition and subtraction)	I can use inverse operations to check and solve calculations.	Know how place value and exchanging support accurate addition.
	Step 6	Multi-step addition and subtraction problems	I can understand and use multi-step addition and subtraction problems.	Know how place value and exchanging support accurate addition.
	Step 7	Compare calculations	I can compare calculations.	Know the key mathematical relationships and vocabulary needed to apply this learning accurately.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Add and subtract whole numbers with more than 4 digits using formal written methods; add and subtract mentally with increasingly large numbers; use rounding to check answers; solve multi-step problems.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 6	Step 8	Find missing numbers	I can find missing numbers.	Know the key mathematical relationships and vocabulary needed to apply this learning accurately.
	Step 1	Multiples	I can understand and use multiples.	Know that multiples are products of a number and whole numbers.
	Step 2	Common multiples	I can understand and use common multiples.	Know that multiples are products of a number and whole numbers.
	Step 3	Factors	I can understand and use factors.	Know that factors divide a number exactly and common factors belong to more than one number.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Add and subtract whole numbers with more than 4 digits using formal written methods; add and subtract mentally with increasingly large numbers; use rounding to check answers; solve multi-step problems. Identify multiples and factors, including common factors and common multiples; know and use prime, square and cube numbers; multiply and divide by 10, 100 and 1,000.			

AUTUMN 2

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 7	Step 4	Common factors	I can understand and use common factors.	Know that factors divide a number exactly and common factors belong to more than one number.
	Step 5	Prime numbers	I can understand and use prime numbers.	Know that a prime number has exactly two factors: 1 and itself.
	Step 6	Square numbers	I can understand and use square numbers.	Know that square numbers are products of a whole number multiplied by itself.
	Step 7	Cube numbers	I can understand and use cube numbers.	Know that cube numbers are products of a whole number multiplied by itself twice.
	Arithmetic	Multiplication tables and related facts	I can recall multiplication and division facts fluently.	Know multiplication tables to 12 × 12 and related division facts.
NC LINKS	Identify multiples and factors, including common factors and common multiples; know and use prime, square and cube numbers; multiply and divide by 10, 100 and 1,000.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 8	Step 8	Multiply by 10, 100 and 1,000	I can multiply by 10, 100 and 1,000.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 9	Divide by 10, 100 and 1,000	I can divide by 10, 100 and 1,000.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 10	Multiples of 10, 100 and 1,000	I can understand and use multiples of 10, 100 and 1,000.	Know that multiples are products of a number and whole numbers.
	Step 1	Find fractions equivalent to a unit fraction	I can find fractions equivalent to a unit fraction.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Arithmetic	Multiplication tables and related facts	I can recall multiplication and division facts fluently.	Know multiplication tables to 12 × 12 and related division facts.
NC LINKS	Identify multiples and factors, including common factors and common multiples; know and use prime, square and cube numbers; multiply and divide by 10, 100 and 1,000. Compare and order fractions; identify, name and write equivalent fractions; recognise mixed numbers and improper fractions and convert between them; add and subtract fractions with related denominators.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 9	Step 2	Find fractions equivalent to a non-unit fraction	I can find fractions equivalent to a non-unit fraction.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 3	Recognise equivalent fractions	I can recognise equivalent fractions.	Know that equivalent fractions have the same value even when numerator and denominator differ.
	Step 4	Convert improper fractions to mixed numbers	I can convert improper fractions to mixed numbers.	Know the relationship between improper fractions and mixed numbers.
	Step 5	Convert mixed numbers to improper fractions	I can convert mixed numbers to improper fractions.	Know that each whole can be expressed as a fraction and use this to convert mixed numbers to improper fractions.
	Arithmetic	Multiplication tables and related facts	I can recall multiplication and division facts fluently.	Know multiplication tables to 12 × 12 and related division facts.
NC LINKS	Compare and order fractions; identify, name and write equivalent fractions; recognise mixed numbers and improper fractions and convert between them; add and subtract fractions with related denominators.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 10	Step 6	Compare fractions less than 1	I can compare fractions less than 1.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 7	Order fractions less than 1	I can order fractions less than 1.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 8	Compare and order fractions greater than 1	I can compare and order fractions greater than 1.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 9	Add and subtract fractions with the same denominator	I can add and subtract fractions with the same denominator.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Arithmetic	Fractions, decimals and percentages fluency	I can recall key fraction, decimal and percentage facts.	Know common equivalences and use them to calculate efficiently.
NC LINKS	Compare and order fractions; identify, name and write equivalent fractions; recognise mixed numbers and improper fractions and convert between them; add and subtract fractions with related denominators.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 11	Step 10	Add fractions within 1	I can add fractions within 1.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 11	Add fractions with total greater than 1	I can add fractions with total greater than 1.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 12	Add to a mixed number	I can add to a mixed number.	Know how place value and exchanging support accurate addition.
	Step 13	Add two mixed numbers	I can add two mixed numbers.	Know how place value and exchanging support accurate addition.
	Arithmetic	Fractions, decimals and percentages fluency	I can recall key fraction, decimal and percentage facts.	Know common equivalences and use them to calculate efficiently.
NC LINKS	Compare and order fractions; identify, name and write equivalent fractions; recognise mixed numbers and improper fractions and convert between them; add and subtract fractions with related denominators.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 12	Step 14	Subtract fractions	I can subtract fractions.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 15	Subtract from a mixed number	I can subtract from a mixed number.	Know how place value and exchanging support accurate subtraction.
	Step 16	Subtract from a mixed number - breaking the whole	I can subtract from a mixed number - breaking the whole.	Know how place value and exchanging support accurate subtraction.
	Step 17	Subtract two mixed numbers	I can subtract two mixed numbers.	Know how place value and exchanging support accurate subtraction.
	Arithmetic	Fractions, decimals and percentages fluency	I can recall key fraction, decimal and percentage facts.	Know common equivalences and use them to calculate efficiently.
NC LINKS	Compare and order fractions; identify, name and write equivalent fractions; recognise mixed numbers and improper fractions and convert between them; add and subtract fractions with related denominators.			

ST PHILOMENA'S PRIMARY SCHOOL
MATHS MEDIUM TERM PLANNING YEAR 5
2026 - 2027
SPRING 1

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 1	Step 1	Multiply up to a 4-digit number by a 1-digit number	I can multiply up to a 4-digit number by a 1-digit number.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 2	Multiply a 2-digit number by a 2-digit number (area model)	I can multiply a 2-digit number by a 2-digit number (area model).	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 3	Multiply a 2-digit number by a 2-digit number	I can multiply a 2-digit number by a 2-digit number.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 4	Multiply a 3-digit number by a 2-digit number	I can multiply a 3-digit number by a 2-digit number.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Multiply numbers up to 4 digits by a 1- or 2-digit number using formal written methods; divide numbers up to 4 digits by a 1-digit number; interpret remainders; solve multiplication and division problems.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 2	Step 5	Multiply a 4-digit number by a 2-digit number	I can multiply a 4-digit number by a 2-digit number.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 6	Solve problems with multiplication	I can solve problems with multiplication.	Know the key mathematical relationships and vocabulary needed to apply this learning accurately.
	Step 7	Short division	I can use short division accurately.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 8	Divide a 4-digit number by a 1-digit number	I can divide a 4-digit number by a 1-digit number.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Multiply numbers up to 4 digits by a 1- or 2-digit number using formal written methods; divide numbers up to 4 digits by a 1-digit number; interpret remainders; solve multiplication and division problems.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 3	Step 9	Divide with remainders	I can divide with remainders.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 10	Efficient division	I can choose an efficient division strategy.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 11	Solve problems with multiplication and division	I can solve problems with multiplication and division.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 1	Multiply a unit fraction by an integer	I can multiply a unit fraction by an integer.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Multiply numbers up to 4 digits by a 1- or 2-digit number using formal written methods; divide numbers up to 4 digits by a 1-digit number; interpret remainders; solve multiplication and division problems. Multiply proper fractions and mixed numbers by whole numbers; solve problems involving fractions of quantities and use fractions as operators.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 4	Step 2	Multiply a non-unit fraction by an integer	I can multiply a non-unit fraction by an integer.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 3	Multiply a mixed number by an integer	I can multiply a mixed number by an integer.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 4	Calculate a fraction of a quantity	I can calculate a fraction of a quantity.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 5	Fraction of an amount	I can understand and use fraction of an amount.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Multiply proper fractions and mixed numbers by whole numbers; solve problems involving fractions of quantities and use fractions as operators.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 5	Step 6	Find the whole	I can find the whole.	Know the key mathematical relationships and vocabulary needed to apply this learning accurately.
	Step 7	Use fractions as operators	I can use fractions as operators.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 1	Decimals up to 2 decimal places	I can understand and use decimals up to 2 decimal places.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 2	Equivalent fractions and decimals (tenths)	I can understand and use equivalent fractions and decimals (tenths).	Know that equivalent fractions have the same value even when numerator and denominator differ.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Multiply proper fractions and mixed numbers by whole numbers; solve problems involving fractions of quantities and use fractions as operators. Read and write decimal numbers as fractions; recognise and use thousandths; round decimals; compare numbers with up to 3 decimal places; recognise the percent symbol and write percentages as fractions and decimals.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 6	Step 3	Equivalent fractions and decimals (hundredths)	I can understand and use equivalent fractions and decimals (hundredths).	Know that equivalent fractions have the same value even when numerator and denominator differ.
	Step 4	Equivalent fractions and decimals	I can understand and use equivalent fractions and decimals.	Know that equivalent fractions have the same value even when numerator and denominator differ.
	Step 5	Thousandths as fractions	I can understand and use thousandths as fractions.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 6	Thousandths as decimals	I can understand and use thousandths as decimals.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Read and write decimal numbers as fractions; recognise and use thousandths; round decimals; compare numbers with up to 3 decimal places; recognise the percent symbol and write percentages as fractions and decimals.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 7	Step 7	Thousandths on a place value chart	I can understand and use thousandths on a place value chart.	Know the value of digits and how place value changes across powers of 10.
	Step 8	Order and compare decimals (same number of decimal places)	I can order and compare decimals (same number of decimal places).	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 9	Order and compare any decimals with up to 3 decimal places	I can order and compare any decimals with up to 3 decimal places.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 10	Round to the nearest whole number	I can round to the nearest whole number.	Know how the next place-value digit determines whether a number rounds up or down.
	Arithmetic	Multiplication tables and related facts	I can recall multiplication and division facts fluently.	Know multiplication tables to 12 × 12 and related division facts.
NC LINKS	Read and write decimal numbers as fractions; recognise and use thousandths; round decimals; compare numbers with up to 3 decimal places; recognise the percent symbol and write percentages as fractions and decimals.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 8	Step 11	Round to 1 decimal place	I can round to 1 decimal place.	Know how the next place-value digit determines whether a number rounds up or down.
	Step 12	Understand percentages	I can explain what percentage means.	Know that percent means parts per hundred and can be represented as a fraction or decimal.
	Step 13	Percentages as fractions	I can understand and use percentages as fractions.	Know that fractions describe equal parts and can be compared or calculated using equivalent forms.
	Step 14	Percentages as decimals	I can understand and use percentages as decimals.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Arithmetic	Multiplication tables and related facts	I can recall multiplication and division facts fluently.	Know multiplication tables to 12 × 12 and related division facts.
NC LINKS	Read and write decimal numbers as fractions; recognise and use thousandths; round decimals; compare numbers with up to 3 decimal places; recognise the percent symbol and write percentages as fractions and decimals.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 9	Step 15	Equivalent fractions, decimals and percentages	I can understand and use equivalent fractions, decimals and percentages.	Know that equivalent fractions have the same value even when numerator and denominator differ.
	Step 1	Perimeter of rectangles	I can understand and use perimeter of rectangles.	Know that perimeter is the total distance around the outside of a shape.
	Step 2	Perimeter of rectilinear shapes	I can understand and use perimeter of rectilinear shapes.	Know that perimeter is the total distance around the outside of a shape.
	Step 3	Perimeter of polygons	I can understand and use perimeter of polygons.	Know that perimeter is the total distance around the outside of a shape.
	Arithmetic	Multiplication tables and related facts	I can recall multiplication and division facts fluently.	Know multiplication tables to 12 × 12 and related division facts.
NC LINKS	Read and write decimal numbers as fractions; recognise and use thousandths; round decimals; compare numbers with up to 3 decimal places; recognise the percent symbol and write percentages as fractions and decimals. Measure and calculate the perimeter of composite rectilinear shapes; calculate and compare areas of rectangles and estimate the area of irregular shapes.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 10	Step 4	Area of rectangles	I can understand and use area of rectangles.	Know that area measures surface covered and rectangles can be calculated using length × width.
	Step 5	Area of compound shapes	I can understand and use area of compound shapes.	Know that area measures surface covered and rectangles can be calculated using length × width.
	Step 6	Estimate area	I can estimate area.	Know that area measures surface covered and rectangles can be calculated using length × width.
	Step 1	Draw line graphs	I can draw line graphs.	Know that line graphs show change between related values and use labelled axes and scales.
	Arithmetic	Fractions, decimals and percentages fluency	I can recall key fraction, decimal and percentage facts.	Know common equivalences and use them to calculate efficiently.
NC LINKS	Measure and calculate the perimeter of composite rectilinear shapes; calculate and compare areas of rectangles and estimate the area of irregular shapes. Solve comparison, sum and difference problems using information presented in line graphs; complete, read and interpret information in tables, including timetables.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 11	**Step 2**	**Read and interpret line graphs**	**I can read and interpret line graphs.**	**Know that line graphs show change between related values and use labelled axes and scales.**
	Step 3	**Read and interpret tables**	**I can read and interpret tables.**	**Know how headings, rows, columns and scales organise data for interpretation.**
	Step 4	**Two-way tables**	**I can understand and use two-way tables.**	**Know how headings, rows, columns and scales organise data for interpretation.**
	Step 5	**Read and interpret timetables**	**I can read and interpret timetables.**	**Know how headings, rows, columns and scales organise data for interpretation.**
	Arithmetic	**Fractions, decimals and percentages fluency**	**I can recall key fraction, decimal and percentage facts.**	**Know common equivalences and use them to calculate efficiently.**
NC LINKS	**Solve comparison, sum and difference problems using information presented in line graphs; complete, read and interpret information in tables, including timetables.**			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 12	Step 5	Read and interpret timetables – reasoning	I can reason and solve problems using information from timetables.	Know how to read timetable intervals and calculate elapsed time.
	Step 5	Read and interpret timetables – application	I can apply timetable skills to multi-step problems.	Know how to interpret timetable information and check calculations.
	Step 5	Read and interpret timetables – problem solving	I can solve multi-step timetable problems and explain my reasoning.	Know how to select and combine timetable information accurately.
	Step 5	Read and interpret timetables – consolidation	I can interpret and check timetable information independently.	Know how to use timetable headings, times and intervals.
	Arithmetic	**Fractions, decimals and percentages fluency**	**I can recall key fraction, decimal and percentage facts.**	**Know common equivalences and use them to calculate efficiently.**
NC LINKS	Solve comparison, sum and difference problems using information presented in line graphs; complete, read and interpret information in tables, including timetables.			

ST PHILOMENA'S PRIMARY SCHOOL
MATHS MEDIUM TERM PLANNING YEAR 5
2026 - 2027
SUMMER 1

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 1	Step 1	Understand and use degrees	I can understand degrees as a measure of angle.	Know that angles are measured in degrees and key angle facts can be used to calculate unknown angles.
	Step 2	Classify angles	I can classify angles as acute, right, obtuse or reflex.	Know that angles are measured in degrees and key angle facts can be used to calculate unknown angles.
	Step 3	Estimate angles	I can estimate the size of angles.	Know that angles are measured in degrees and key angle facts can be used to calculate unknown angles.
	Step 4	Measure angles up to 180°	I can measure angles up to 180°.	Know that angles are measured in degrees and key angle facts can be used to calculate unknown angles.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Identify 3-D shapes from 2-D representations; know angles are measured in degrees; estimate, compare, measure and draw angles; use angle facts; distinguish regular and irregular polygons.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 2	Step 5	Draw lines and angles accurately	I can draw lines and angles accurately.	Know that angles are measured in degrees and key angle facts can be used to calculate unknown angles.
	Step 6	Calculate angles around a point	I can calculate angles around a point.	Know that angles around a point total 360°.
	Step 7	Calculate angles on a straight line	I can calculate angles on a straight line.	Know that angles are measured in degrees and key angle facts can be used to calculate unknown angles.
	Step 8	Lengths and angles in shapes	I can understand and use lengths and angles in shapes.	Know that angles are measured in degrees and key angle facts can be used to calculate unknown angles.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Identify 3-D shapes from 2-D representations; know angles are measured in degrees; estimate, compare, measure and draw angles; use angle facts; distinguish regular and irregular polygons.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 3	Step 9	Regular and irregular polygons	I can understand and use regular and irregular polygons.	Know that polygons are 2-D shapes with straight sides and can be regular or irregular.
	Step 10	3-D shapes	I can identify and describe 3-D shapes.	Know that 3-D shapes can be described using faces, edges and vertices.
	Step 1	Read and plot coordinates	I can read and plot coordinates.	Know that coordinates are read and plotted using x first, then y.
	Step 2	Problem solving with coordinates	I can understand and use problem solving with coordinates.	Know that coordinates are read and plotted using x first, then y.
	Arithmetic	Place value and mental fluency	I can recall and apply place-value facts quickly.	Know key place-value relationships and powers of 10.
NC LINKS	Identify 3-D shapes from 2-D representations; know angles are measured in degrees; estimate, compare, measure and draw angles; use angle facts; distinguish regular and irregular polygons. Identify, describe and represent the position of a shape following a reflection or translation, using appropriate language and coordinates.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 4	Step 3	Translation	I can understand and use translation.	Know that a translation moves every point the same distance in the same direction.
	Step 4	Translation with coordinates	I can understand and use translation with coordinates.	Know that coordinates are read and plotted using x first, then y.
	Step 5	Lines of symmetry	I can understand and use lines of symmetry.	Know that reflection creates a mirror image the same perpendicular distance from the mirror line.
	Step 6	Reflection in horizontal and vertical lines	I can reflect shapes in horizontal and vertical lines.	Know that reflection creates a mirror image the same perpendicular distance from the mirror line.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Identify, describe and represent the position of a shape following a reflection or translation, using appropriate language and coordinates.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 5	Step 1	Use known facts to add and subtract decimals within 1	I can use known facts to add and subtract decimals within 1.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 2	Complements to 1	I can understand and use complements to 1.	Know the key mathematical relationships and vocabulary needed to apply this learning accurately.
	Step 3	Add and subtract decimals across 1	I can add and subtract decimals across 1.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 4	Add decimals with the same number of decimal places	I can add decimals with the same number of decimal places.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Solve problems involving numbers with up to 3 decimal places; use place value and known facts to add, subtract, multiply and divide decimals.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 6	Step 5	Subtract decimals with the same number of decimal places	I can subtract decimals with the same number of decimal places.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 6	Add decimals with different numbers of decimal places	I can add decimals with different numbers of decimal places.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 7	Subtract decimals with different numbers of decimal places	I can subtract decimals with different numbers of decimal places.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 8	Efficient strategies for adding and subtracting decimals	I can understand and use efficient strategies for adding and subtracting decimals.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Arithmetic	Addition and subtraction fluency	I can calculate accurately using mental and written methods.	Know number facts and efficient strategies for addition and subtraction.
NC LINKS	Solve problems involving numbers with up to 3 decimal places; use place value and known facts to add, subtract, multiply and divide decimals.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 7	Step 9	Decimal sequences	I can understand and use decimal sequences.	Know the place value of tenths, hundredths and thousandths and how decimals relate to fractions.
	Step 10	Multiply by 10, 100 and 1,000	I can multiply by 10, 100 and 1,000.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 11	Divide by 10, 100 and 1,000	I can divide by 10, 100 and 1,000.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Step 12	Multiply and divide decimals - missing values	I can multiply and divide decimals - missing values.	Know and apply multiplication facts, place value and inverse relationships to calculate efficiently.
	Arithmetic	Multiplication tables and related facts	I can recall multiplication and division facts fluently.	Know multiplication tables to 12 × 12 and related division facts.
NC LINKS	Solve problems involving numbers with up to 3 decimal places; use place value and known facts to add, subtract, multiply and divide decimals.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 8	Step 1	Understand negative numbers	I can understand and represent negative numbers.	Know that negative numbers are less than zero and their position on a number line shows order and difference.
	Step 2	Count through zero in 1s	I can count through zero in 1s.	Know that negative numbers are less than zero and their position on a number line shows order and difference.
	Step 3	Count through zero in multiples	I can count through zero in multiples.	Know that multiples are products of a number and whole numbers.
	Step 4	Compare and order negative numbers	I can compare and order negative numbers.	Know that negative numbers are less than zero and their position on a number line shows order and difference.
	Arithmetic	Multiplication tables and related facts	I can recall multiplication and division facts fluently.	Know multiplication tables to 12 × 12 and related division facts.
NC LINKS	Interpret negative numbers in context; count forwards and backwards with positive and negative whole numbers, including through zero.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 9	Financial Education 1	Currencies and Spending Options	I understand countries have their own currencies and can explain different ways to pay for things.	Know that countries use different currencies and payments can be made using cash, cards and digital methods.
	Financial Education 2	Spending Influences	I can talk about factors that may influence how people spend their money.	Know that needs, wants, advertising, peers, values and available money can influence spending.
	Financial Education 3	Budgeting	I can explain why budgeting can be helpful and how a budget can be made.	Know that a budget compares money coming in with planned spending and saving.
	Financial Education 4	Money and Emotional Wellbeing	I can discuss the effect money can have on people's emotional wellbeing.	Know that money worries and financial choices can affect feelings and wellbeing, and support can be sought.
	Financial Education 5	Online Financial Safety	I can explain different ways of spending money online and how to do this securely.	Know how to protect payment details, passwords and personal information when spending online.
	Financial Education 6	Employment Choices	I can discuss factors which may influence people's employment decisions and ways people can contribute positively to society.	Know that pay, interests, skills, working conditions and contribution to society can influence employment choices.
	Arithmetic	Mixed arithmetic fluency	I can recall and apply key arithmetic facts and methods fluently.	Know and select efficient methods for the four operations, fractions and decimals.
NC LINKS	Financial education: understand currencies, payment methods, spending influences, budgeting, emotional wellbeing, online financial safety and employment choices.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 10	Step 5	Find the difference	I can find the difference.	Know that negative numbers are less than zero and their position on a number line shows order and difference.
	Step 1	Kilograms and kilometres	I can understand and use kilograms and kilometres.	Know common metric units and conversion relationships, and apply them accurately.
	Step 2	Millimetres and millilitres	I can understand and use millimetres and millilitres.	Know common metric units and conversion relationships, and apply them accurately.
	Step 3	Convert units of length	I can convert units of length.	Know common metric units and conversion relationships, and apply them accurately.
	Arithmetic	Fractions, decimals and percentages fluency	I can recall key fraction, decimal and percentage facts.	Know common equivalences and use them to calculate efficiently.
NC LINKS	Interpret negative numbers in context; count forwards and backwards with positive and negative whole numbers, including through zero. Convert between different units of metric measure; understand and use approximate equivalences between metric and common imperial units; solve problems involving time and timetables.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 11	Step 4	Convert between metric and imperial units	I can convert between metric and imperial units.	Know common metric units and conversion relationships, and apply them accurately.
	Step 5	Convert units of time	I can convert units of time.	Know common metric units and conversion relationships, and apply them accurately.
	Step 6	Calculate with timetables	I can calculate with timetables.	Know how headings, rows, columns and scales organise data for interpretation.
	Step 1	Cubic centimetres	I can use cubic centimetres to measure volume.	Know that volume can be measured in cubic centimetres (cm^3) using unit cubes.
	Arithmetic	Fractions, decimals and percentages fluency	I can recall key fraction, decimal and percentage facts.	Know common equivalences and use them to calculate efficiently.
NC LINKS	Convert between different units of metric measure; understand and use approximate equivalences between metric and common imperial units; solve problems involving time and timetables. Estimate volume and capacity; use cube numbers and cubic units to compare and describe volume.			

	WHITE ROSE STEPS	WHITE ROSE CONTENT	LEARNING OBJECTIVES	KEY KNOWLEDGE
WEEK 12	**Step 2**	**Compare volume**	**I can compare volume.**	**Know that volume is the space occupied by a 3-D object and can be measured in cubic units.**
	Step 3	**Estimate volume**	**I can estimate volume.**	**Know that volume is the space occupied by a 3-D object and can be measured in cubic units.**
	Step 4	**Estimate capacity**	**I can estimate capacity.**	**Know that volume is the space occupied by a 3-D object and can be measured in cubic units.**
	Step 4	Estimate capacity – reasoning	I can reason about and solve problems involving capacity estimates.	Know how to estimate capacity using suitable benchmarks and units.
	Arithmetic	**Fractions, decimals and percentages fluency**	**I can recall key fraction, decimal and percentage facts.**	**Know common equivalences and use them to calculate efficiently.**
NC LINKS	**Estimate volume and capacity; use cube numbers and cubic units to compare and describe volume. Convert between different units of metric measure; understand and use approximate equivalences between metric and common imperial units; solve problems involving time and timetables.**			

Financial Education resources: counters of six different colours (or small paper squares), mini whiteboards, sticky notes, colourful pens and pencils, and large paper.