



'Everyone can do maths!'

(White Rose Maths)

Introduction and Intent

Like White Rose Maths, at The Forest School, we believe every pupil can do Maths at their own pace, at the right level and with appropriate support. All Maths learning is supported and structured in the same way throughout school, beginning with concrete resources such as cubes, counters or shapes and pupils being actively involved in their daily maths lessons. The next part of the pupils' Maths journey involves linking their concrete, active learning to pictorial representations of numbers. Following this, they start to build understanding of abstract maths concepts, developing knowledge and skills that allow pupils' to apply Maths knowledge at a greater-depth, enabling them to solve problems.

The National Curriculum for Mathematics aims to ensure that all pupils:

- *become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time*
- *reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language*
- *can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.*

In the Early Years Foundation Stage and Key Stage 1, Maths learning is class-based. In Key Stage 2, pupils will begin to stream into an appropriate level Maths group along with Key Stage 3 peers. In Key Stage 4, pupils will reinforce and refine their knowledge and continue their learning, to gain Maths Functional Skills qualifications or AQA certification, alongside acquired Maths knowledge, which will help all pupils with life-long problem solving, reasoning and critical thinking.



W Pathway Toolkit

Nursery Curriculum (0 months - 48 months)

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|---|---|---|---|---|---|
| <p>Comparison 1</p> <p>More than, fewer than, same</p> <p>VIEW</p> | <p>Shape, space and measure 1</p> <p>Explore and build with shapes and objects</p> <p>VIEW</p> | <p>Pattern 1</p> <p>Explore repeats</p> <p>VIEW</p> | <p>Counting 1</p> <p>Hear and say number names</p> <p>VIEW</p> | <p>Counting 2</p> <p>Begin to order number names</p> <p>VIEW</p> | <p>Subitising 1</p> <p>I see 1, 2, 3</p> <p>VIEW</p> |
| <p>Pattern 2</p> <p>Join in with repeats</p> <p>VIEW</p> | <p>Shape, space and measure 2</p> <p>Explore position and space</p> <p>VIEW</p> | <p>Subitising 2</p> <p>Show me 1, 2, 3</p> <p>VIEW</p> | <p>Counting 3</p> <p>Move and label 1, 2, 3</p> <p>VIEW</p> | <p>Shape, space and measure 3</p> <p>Explore position and routes</p> <p>VIEW</p> | <p>Pattern 3</p> <p>Explore patterns</p> <p>VIEW</p> |
| <p>Counting 4</p> <p>Take and give 1, 2, 3</p> <p>VIEW</p> | <p>Shape, space and measure 4</p> <p>Match, talk, push and pull</p> <p>VIEW</p> | <p>Subitising 3</p> <p>Talk about dots</p> <p>VIEW</p> | <p>Composition 2</p> <p>Compare and sort collections</p> <p>VIEW</p> | <p>Pattern 4</p> <p>Lead on own repeats</p> <p>VIEW</p> | <p>Shape, space and measure 5</p> <p>Start to puzzle</p> <p>VIEW</p> |
| <p>Pattern 5</p> <p>Making patterns together</p> <p>VIEW</p> | <p>Subitising 4</p> <p>Make games and actions</p> <p>VIEW</p> | <p>Counting 5</p> <p>Show me 5</p> <p>VIEW</p> | <p>Pattern 6</p> <p>My own pattern</p> <p>VIEW</p> | <p>Counting 6</p> <p>Stop at 1, 2, 3, 4, 5</p> <p>VIEW</p> | <p>Comparison 3</p> <p>Match, sort, compare</p> <p>VIEW</p> |



Reception Curriculum (48 months - 60 months)

| | | | | | | | |
|--------------------|------------------------------|---|---|-------------------------------------|--------------------------------------|--------------------------------|---------------------------------|
| Autumn term | Getting to know you | Match, sort and compare FREE TRIAL VIEW | Talk about measure and patterns VIEW | It's me 1, 2, 3 VIEW | Circles and triangles VIEW | 1, 2, 3, 4, 5 VIEW | Shapes with 4 sides VIEW |
| Spring term | Alive in 5 VIEW | Mass and capacity VIEW | Growing 6, 7, 8 VIEW | Length, height and time VIEW | Building 9 and 10 VIEW | Explore 3-D shapes VIEW | |
| Summer term | To 20 and beyond VIEW | How many now? VIEW | Manipulate, compose and decompose VIEW | Sharing and grouping VIEW | Visualise, build and map VIEW | Make connections VIEW | Consolidation |



Year 1 Curriculum

| Year 1 | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|------------------------------------|----------------------|--|------------------------|
| Autumn | Place Value within 10 | Shape | Addition and Subtraction within 10 | Length and Height |
| Spring | Place Value within 20 | Mass and Volume | Addition and Subtraction within 20 | Position and Direction |
| Summer | Place value within 50 / 100 | Money | Multiplication and Division / Fractions | Time |

White Rose Maths Year 1 Plan for steps and resources (add other resources, especially concrete too).

| | | | | | | |
|--------------------|--|---|---|---|---|------------------------------|
| Autumn term | Number Place value (within 10) VIEW | | Number Addition and subtraction (within 10) VIEW | | Geometry Shape VIEW | Consolidation |
| | Number Place value (within 20) VIEW | Number Addition and subtraction (within 20) VIEW | Number Place value (within 50) VIEW | Measurement Length and height VIEW | Measurement Mass and volume VIEW | |
| Spring term | Number Multiplication and division VIEW | | Number Fractions VIEW | Geometry Position and direction VIEW | Number Place value (within 100) VIEW | Measurement Money VIEW |
| | Measurement Time VIEW | | Consolidation | | | |



Year 2 Curriculum

| <u>Year 2</u> | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|-----------------------------|-------------------|--------------------------|--------------------------------|
| Autumn | Place Value | Shape | Place Value | Money |
| Spring | Addition and Subtraction | Length and Height | Addition and Subtraction | Mass, Capacity and Temperature |
| Summer | Multiplication and Division | Time | Fractions / Statistics | Position and Direction |

White Rose Maths Year 2 Plan for steps and resources (add other resources, especially concrete too).

| | | | | | |
|-------------|-------------------------------|---|--|--|---|
| Autumn term | Number Place value VIEW | | Number Addition and subtraction VIEW | | Geometry Shape VIEW |
| | Measurement Money VIEW | Number Multiplication and division VIEW | | Measurement Length and height VIEW | Measurement Mass, capacity and temperature VIEW |
| | Number Fractions VIEW | Measurement Time VIEW | Statistics VIEW | Geometry Position and direction VIEW | Consolidation |



Year 3 Curriculum

| Year 3 | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|--------------------------------------|----------------------|--------------------------------------|----------------------|
| Autumn | Place Value | Length and Perimeter | Addition and Subtraction | Mass and Capacity |
| Spring | Multiplication and Division A | Money | Multiplication and Division B | Time |
| Summer | Fractions A | Shape | Fractions B | Statistics |

White Rose Maths Year 3 Plan for steps and resources (add other resources, especially concrete too).

| | | | | | | |
|--------------------|--|--|--|----------------------------------|---------------------------|----------------------|
| Autumn term | Number Place value VIEW | Number Addition and subtraction VIEW | Number Multiplication and division A VIEW | | | |
| | Number Multiplication and division B VIEW | Measurement Length and perimeter VIEW | Number Fractions A VIEW | | | |
| | Measurement Mass and capacity VIEW | | | | | |
| Spring term | Number Fractions B VIEW | Measurement Money VIEW | Measurement Time VIEW | Geometry Shape VIEW | Statistics VIEW | Consolidation |



Year 4 Curriculum

| <u>Year 4</u> | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|-------------------------------|----------------------------|-------------------------------|------------------------|
| Autumn | Place Value | Area, Length and Perimeter | Addition and Subtraction | Money |
| Spring | Multiplication and Division A | Time | Multiplication and Division B | Shape |
| Summer | Fractions | Statistics | Decimals A / B | Position and Direction |

White Rose Maths Year 4 Plan for steps and resources (add other resources, especially concrete too).

| | | | | | |
|--------------------|--|--|------------------------------------|--|---|
| Autumn term | Number Place value VIEW | Number Addition and subtraction VIEW | Measurement Area VIEW | Number Multiplication and division A VIEW | Consolidation |
| Spring term | Number Multiplication and division B VIEW | Measurement Length and perimeter VIEW | Number Fractions VIEW | Number Decimals A VIEW | |
| Summer term | Number Decimals B VIEW | Measurement Money VIEW | Measurement Time VIEW | Consolidation | Geometry Shape VIEW |
| | | | | Statistics VIEW | Geometry Position and direction VIEW |



Year 5 Curriculum

| Year 5 | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|--|----------------------|--|------------------------|
| Autumn | Place Value | Perimeter and Area | Addition and Subtraction | Statistics |
| Spring | Multiplication and Division A / Fractions A | Shape | Multiplication and Division B / Fractions B | Position and Direction |
| Summer | Decimals and Percentages | Converting Units | Decimals / Negative Numbers | Volume |

White Rose Maths Year 5 Plan for steps and resources (add other resources, especially concrete too).

| | | | | | |
|--------------------|--|---|--|--|--------------------------------------|
| Autumn term | Number Place value VIEW | Number Addition and subtraction VIEW | Number Multiplication and division A VIEW | Number Fractions A VIEW | |
| Spring term | Number Multiplication and division B VIEW | Number Fractions B VIEW | Number Decimals and percentages VIEW | Measurement Perimeter and area VIEW | Statistics VIEW |
| Summer term | Geometry Shape VIEW | Geometry Position and direction VIEW | Number Decimals VIEW | Measurement Converting units VIEW | Measurement Volume VIEW |



Year 6 Curriculum

| <u>Year 6</u> | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|---|----------------------------|---|----------------------------|
| Autumn | Place Value | Converting Units | Addition, Subtraction, Multiplication and Division | Area, Perimeter and Volume |
| Spring | Addition, Subtraction, Multiplication and Division | Area, Perimeter and Volume | Fractions A / B | Statistics |
| Summer | Ratio / Algebra | Shape | Decimals / Fractions, Decimals and Percentages | Position and Direction |

White Rose Maths Year Plan for steps and resources (add other resources, especially concrete too).

| | | | | | | |
|--------------------|-------------------------------|--|--|--|---|--------------------|
| Autumn term | Number Place value VIEW | Number Addition, subtraction, multiplication and division VIEW | Number Fractions A VIEW | Number Fractions B VIEW | Measurement Converting units VIEW | |
| Spring term | Number Ratio VIEW | Number Algebra VIEW | Number Decimals VIEW | Number Fractions decimals and percentages VIEW | Measurement Area, perimeter and volume VIEW | Statistics VIEW |
| Summer term | Geometry Shape VIEW | Geometry Position and direction VIEW | Themed projects, consolidation and problem solving | | | |



Year 7 Curriculum

| Year 7 | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|---|--|---|---------------------------------------|
| Autumn | Sequences / Understand and Use Algebraic Notation / Equality and Equivalence | Fractions and Percentages of Amounts | Place Value and Ordering Integers and Decimals / Fraction, Decimal and Percentages Equivalence | Addition and Subtraction of Fractions |
| Spring | Solving Problems with Addition and Subtraction | Addition and Subtraction of Fractions | Solving Problems with Multiplication and Division | Addition and Subtraction of Fractions |
| Summer | Operations and Equations with Directed Number | Constructing, Measuring and Using Geometric Notation | Developing Number Sense / Sets and Probability / Prime Numbers and Proof | Developing Geometric Reasoning |

White Rose Maths Year 7 Plan for steps and resources (add other resources, especially concrete too).

| | | | | | |
|--------------------|---|--|---|---|---|
| Autumn term | Algebraic thinking Sequences FREE TRIAL VIEW | Algebraic thinking Understand & use algebraic notation VIEW | Algebraic thinking Equality & equivalence VIEW | Place value & proportion Place value & ordering integers & decimals VIEW | Place value & proportion Fraction, decimal & percentage equivalence VIEW |
| | Applications of number Solving problems with addition & subtraction VIEW | Applications of number Solving problems with multiplication & division VIEW | Fractions & percentages of amounts VIEW | Directed number Operations & equations with directed number VIEW | Fractional thinking Addition & subtraction of fractions VIEW |
| | Lines & angles Constructing, measuring & using geometric notation VIEW | Lines & angles Developing geometric reasoning VIEW | Reasoning with number Developing number sense VIEW | Reasoning with number Sets & probability VIEW | Reasoning with number Prime numbers & proof VIEW |



Year 8 Curriculum

| <u>Year 8</u> | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|--|--|--|---------------------------------|
| Autumn | Ration and Scale / Multiplicative Change / Multiplying and Dividing Fractions | Angles in Parallel Lines and Polygons | Working in the Cartesian Plane / Representing Data / Tables and Probability | Area of Trapezia and Circles |
| Spring | Brackets, Equations and Inequalities | Line Symmetry and Reflection | Sequences / Indices | The Data Handling Cycle |
| Summer | Fractions and Percentages | The Data Handling Cycle | Standard Index Form / Number Sense | Measures of Location |

White Rose Maths Year 8 Plan for steps and resources (add other resources, especially concrete too).

| | | | | | | |
|--------------------|---|--|---|--|--|--|
| Autumn term | Proportional reasoning Ratio & scale FREE TRIAL VIEW | Proportional reasoning Multiplicative change VIEW | Proportional reasoning Multiplying and dividing fractions VIEW | Representations Working in the Cartesian plane VIEW | Representations Representing data VIEW | Representations Tables & Probability VIEW |
| Spring term | Algebraic techniques Brackets, equations & inequalities VIEW | Algebraic techniques Sequences VIEW | Algebraic techniques Indices VIEW | Developing Number Fractions & percentages VIEW | Developing Number Standard index form VIEW | Developing Number Number sense VIEW |
| Summer term | Developing geometry Angles in parallel lines & polygons VIEW | Developing geometry Area of trapezia & circles VIEW | Developing geometry Line symmetry & reflection VIEW | Reasoning with data The data handling cycle VIEW | Reasoning with data Measures of location VIEW | |



Year 9 Curriculum

| <u>Year 9</u> | 1 (focus) | 1 (last week) | 2 (focus) | 2 (last week) |
|---------------|---|-----------------------------|--|---------------------------------|
| Autumn | Straight Line Graphs / Forming and Solving Equations | Three Dimensional Shapes | Forming and Solving Equations / Testing Conjectures | Constructions and Congruency |
| Spring | Numbers / Using Percentages | Deduction | Using Percentages / Maths and Money | Rotation and Translation |
| Summer | Enlargement and Similarity / Solving Ratio and Proportion Problems | Pythagoras Theorem | Rates / Probability | Algebraic Representations |

White Rose Maths Year 9 Plan for steps and resources (add other resources, especially concrete too).

| | | | | | | |
|--------------------|---|---|--|---|---|---|
| Autumn term | Reasoning with algebra Straight line graphs FREE TRIAL VIEW | Reasoning with algebra Forming & solving equations VIEW | Reasoning with algebra Testing conjectures VIEW | Constructing in 2 & 3 dimensions Three dimensional shapes VIEW | Constructing in 2 & 3 dimensions Constructions & congruency VIEW | |
| Spring term | Reasoning with number Numbers VIEW | Reasoning with number Using percentages VIEW | Reasoning with number Maths & money VIEW | Reasoning with geometry Deduction VIEW | Reasoning with geometry Rotation & translation VIEW | Reasoning with geometry Pythagoras' theorem VIEW |
| Summer term | Reasoning with proportion Enlargement & similarity VIEW | Reasoning with proportion Solving ratio & proportion problems VIEW | Reasoning with proportion Rates VIEW | Representations & revision Probability VIEW | Algebraic Representation VIEW | Revision |



Entry Level 1 Curriculum

Working below Year 1 NC - White Rose Maths Year R / 1 for steps and resources (add other resources, especially concrete too).

| | | |
|-----------------|----------------------------------|---|
| Autumn 1 | Pearson Focus | <p>Using numbers and the number system – whole numbers Read, write, order and compare numbers up to 20. Use whole numbers to count up to 20 items, including zero. Add numbers which total up to 20, and subtract numbers from numbers up to 20. Recognise and interpret the symbols +, – and = appropriately.</p> |
| | Links to White Rose Maths | Place Value (within 10 / 20) / Addition and Subtraction (within 10 / 20) |
| Autumn 2 | Pearson Focus | <p>Using common measures, shape and space Recognise coins and notes and write them in numbers with the correct symbols (£ & p), where these involve numbers up to 20. Read 12-hour digital and analogue clocks in hours. Know the number of days in a week, months and seasons in a year; be able to name and sequence. Describe and make comparisons in words between measures of items including size, length, width, height, weight and capacity. Identify and recognise common 2-D and 3-D shapes including circle, cube, rectangle (including square) and triangle. Use every day positional vocabulary to describe position and direction, including left, right, in front, behind, under and above.</p> |
| | Links to White Rose Maths | Money / Time / Length and Height / Mass and Volume / Shape / Position and Direction |
| Spring 1 | Pearson Focus | <p>Handling information and data Read numerical information from lists. Sort and classify objects using a single criterion. Read and draw simple charts and diagrams, including a tally chart, block diagram/graph.</p> |
| | Links to White Rose Maths | No links, own planning. |
| Spring 2 | Recap / Consolidation | As needed from above. |



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|-----------------|-------------------------|-----------------------|
| Summer 1 | Exam Preparation | Entry Level 1 |
| Summer 2 | Consolidation | As needed from above. |



Entry Level 2 Curriculum

Working at Year 2 NC - White Rose Maths Year 1 / 2 for steps and resources (add other resources, especially concrete too).

| | | |
|----------|---------------------------|--|
| Autumn 1 | Pearson Focus | <p>Using numbers and the number system – whole numbers, fractions and decimals Count reliably up to 100 items. Read, write, order and compare numbers up to 200. Recognise and sequence odd and even numbers up to 100. Recognise and interpret the symbols +, −, ×, ÷ and = appropriately. Add and subtract two-digit numbers. Multiply whole numbers in the range 0×0 to 12×12 (times tables). Know the number of hours in a day and weeks in a year; be able to name and sequence. Divide two-digit whole numbers by single-digit whole numbers and express remainders. Approximate by rounding to the nearest 10, and use this rounded answer to check results. Recognise simple fractions (halves, quarters and tenths) of whole numbers and shapes. Read, write and use decimals to one decimal place.</p> <p>REVISION</p> |
| | Links to White Rose Maths | <p>Place Value / Addition and Subtraction / Multiplication and Division / Time / Fractions Rounding no links, own planning. / Decimals no links, own planning.</p> |
| Autumn 2 | Pearson Focus | <p>Using common measures, shape and space Calculate money with pence up to one pound and in whole pounds of multiple items and write with the correct symbols (£ or p). Read and record time in common date formats, and read time displayed on analogue clocks in hours, half hours and quarter hours, and understand hours from a 24-hour digital clock. Use metric measures of length, including millimetres, centimetres, metres and kilometres. Use measures of weight, including grams and kilograms. Use measures of capacity, including millilitres and litres. Read and compare positive temperatures. Read and use simple scales to the nearest labelled division. Recognise and name 2-D and 3-D shapes, including pentagons, hexagons, cylinders, cuboids, pyramids and spheres. Describe the properties of common 2-D and 3-D shapes, including numbers of sides, corners, edges, faces, angles and base.</p> |



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| | | Use appropriate positional vocabulary to describe position and direction, including between, inside, outside, middle, below, on top, forwards and backwards. REVISION |
| | Links to White Rose Maths | Money / Time / Length and Height / Mass, Capacity and Temperature / Properties of Shape / Position and Direction |
| Spring 1 | Pearson Focus | Handling information and data Extract information from lists, tables, diagrams and bar charts. Make numerical comparisons from bar charts. Sort and classify objects using two criteria. Take information from one format and represent the information in another format, including use of bar charts. REVISION |
| | Links to White Rose Maths | Statistics |
| Spring 2 | Recap / Consolidation | As needed from above. |
| Summer 1 | Exam Preparation | Entry Level 2 |
| Summer 2 | Consolidation | As needed from above. |



Entry Level 3 Curriculum

Working at Year 4 NC - White Rose Maths Year 3 / 4 for steps and resources (add other resources, especially concrete too).

| | | |
|----------|---------------------------|--|
| Autumn 1 | Pearson Focus | <p>Using numbers and the number system – whole numbers, fractions and decimals Count, read, write, order and compare numbers up to 1000. Add and subtract using three-digit whole numbers. Divide three-digit whole numbers by single- and double-digit whole numbers and express remainders. Multiply two-digit whole numbers by single- and double-digit whole numbers. Approximate by rounding numbers less than 1000 to the nearest 10 or 100 and use this rounded answer to check results. Recognise and continue linear sequences of numbers up to 100. Read, write and understand thirds, quarters, fifths and tenths, including equivalent forms. Read, write and use decimals up to two decimal places. Recognise and continue sequences that involve decimals.</p> <p>REVISION</p> |
| | Links to White Rose Maths | Place Value / Addition and Subtraction / Multiplication and Division A and B / Fractions / Decimals A and B |
| Autumn 2 | Pearson Focus | <p>Using common measures, shape and space Calculate with money using decimal notation and express money correctly in writing in pounds and pence. Round amounts of money to the nearest £1 or 10p. Read, measure and record time using am and pm. Read time from analogue and 24-hour digital clocks in hours and minutes. Use and compare measures of length, capacity, weight and temperature using metric or imperial units to the nearest labelled or unlabelled division. Compare metric measures of length, including millimetres, centimetres, metres and kilometres. Compare measures of weight, including grams and kilograms. Compare measures of capacity, including millilitres and litres. Use a suitable instrument to measure mass and length. Sort 2-D and 3-D shapes using properties, including lines of symmetry, length, right angles, angles, including in rectangles and triangles.</p> |



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| | | Using appropriate positional vocabulary to describe position and direction, including eight compass points and full/half/quarter turns. REVISION |
| | Links to White Rose Maths | Money / Time / Length and Perimeter / Area / Shape / Position and Direction / Mass no links, own planning. / Capacity, no links own planning. |
| Spring 1 | Pearson Focus | Handling information and data Extract information from lists, tables, diagrams and charts and create frequency tables. Interpret information to make comparisons and record changes, from different formats, including bar charts and simple line graphs. Organise and represent information in appropriate ways, including tables, diagrams, simple line graphs and bar charts. REVISION |
| | Links to White Rose Maths | Statistics |
| Spring 2 | Recap / Consolidation | As needed from above. |
| Summer 1 | Exam Preparation | Entry Level 3 |
| Summer 2 | Consolidation | As needed from above. |



Level 1 Curriculum

Working at Year 6 NC - White Rose Maths Year 5 / 6 for steps and resources (add other resources, especially concrete too).

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|----------|---------------------------|---|
| Autumn 1 | Pearson Focus | <p>Using numbers and the number system – whole numbers, fractions and decimals and percentages</p> <p>Read, write, order and compare large numbers (up to one million). Recognise and use positive and negative numbers. Multiply and divide whole numbers and decimals by 10, 100, 1000. Use multiplication facts and make connections with division facts. Use simple formulae expressed in words for one or two-step operations. Calculate the squares of one-digit and two-digit numbers. Follow the order of precedence of operators. Read, write, order and compare common fractions and mixed numbers. Find fractions of whole number quantities or measurements. Read, write, order and compare decimals up to three decimal places. Add, subtract, multiply and divide decimals up to two decimal places. Approximate by rounding to a whole number or to one or two decimal places. Read, write, order and compare percentages in whole numbers. Calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiples thereof. Estimate answers to calculations using fractions and decimals. Recognise and calculate equivalences between common fractions, percentages and decimals. Work with simple ratio and direct proportions.</p> <p>REVISION</p> |
| | Links to White Rose Maths | Place Value / Addition, Subtraction, Multiplication and Division / Fractions A and B / Decimals / Ratio / Algebra / Fractions, Decimals and Percentages |
| Autumn 2 | Pearson Focus | <p>Using common measures, shape and space</p> <p>Calculate simple interest in multiples of 5% on amounts of money. Calculate discounts in multiples of 5% on amounts of money. Convert between units of length, weight, capacity, money and time, in the same system. Recognise and make use of simple scales on maps and drawings.</p> |



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| | | <p>Calculate the area and perimeter of simple shapes including those that are made up of a combination of rectangles. Calculate the volumes of cubes and cuboids. Draw 2-D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles. Interpret plans, elevations and nets of simple 3-D shapes. Use angles when describing position and direction, and measure angles in degrees.</p> <p style="text-align: center;">REVISION</p> |
| | Links to White Rose Maths | Fractions, Decimals and Percentages / Converting Units / Shape / Position and Direction |
| Spring 1 | Pearson Focus | <p style="text-align: center;">Handling information and data</p> <p>Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs. Group discrete data and represent grouped data graphically. Find the mean and range of a set of quantities. Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events. Use equally likely outcomes to find the probabilities of simple events and express them as fractions.</p> <p style="text-align: center;">REVISION</p> |
| | Links to White Rose Maths | Statistics |
| Spring 2 | Recap / Consolidation | As needed from above. |
| Summer 1 | Exam Preparation | Level 1 |
| Summer 2 | Consolidation | As needed from above. |



Level 2 Curriculum

Working at Year 9 NC - White Rose Maths Year 7 / 8 / 9 for steps and resources (add other resources, especially concrete too).

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|----------|---------------------------|--|
| Autumn 1 | Pearson Focus | <p>Using numbers and the number system – whole numbers, fractions, decimals and percentages</p> <p>Read, write, order and compare positive and negative numbers of any size. Carry out calculations with numbers up to one million including strategies to check answers including estimation and approximation.</p> <p>Evaluate expressions and make substitutions in given formulae in words and symbols. Identify and know the equivalence between fractions, decimals and percentages. Work out percentages of amounts and express one amount as a percentage of another. Calculate percentage change (any size increase and decrease), and original value after percentage change.</p> <p>Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers.</p> <p>Express one number as a fraction of another. Order, approximate and compare decimals. Add, subtract, multiply and divide decimals up to three decimal places. Understand and calculate using ratios, direct proportion and inverse proportion. Follow the order of precedence of operators, including indices.</p> <p>REVISION</p> |
| | Links to White Rose Maths | Numbers / Forming and Solving Equations / using Percentages / Solving Ratio and Proportion Problems |
| Autumn 2 | Pearson Focus | <p>Using common measures, shape and space</p> <p>Calculate amounts of money, compound interest, percentage increases, decreases and discounts including tax and simple budgeting.</p> <p>Convert between metric and imperial units of length, weight and capacity using a) a conversion factor and b) a conversion graph.</p> <p>Calculate using compound measures including speed, density and rates of pay. Calculate perimeters and areas of 2-D shapes including triangles and circles and composite shapes including non-rectangular shapes (formulae given except for triangles and circles).</p> |



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| | | <p>Use formulae to find volumes and surface areas of 3-D shapes including cylinders (formulae to be given for 3-D shapes other than cylinders). Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements. Use coordinates in 2-D, positive and negative, to specify the positions of points. Understand and use common 2-D representations of 3-D objects. Draw 3-D shapes to include plans and elevations. Calculate values of angles and/or coordinates with 2-D and 3-D shapes.</p> <p style="text-align: center;">REVISION</p> |
| | Links to White Rose Maths | Maths and Money / Straight line Graphs / Three Dimensional Shapes |
| Spring 1 | Pearson Focus | <p style="text-align: center;">Handling information and data</p> <p>Calculate the median and mode of a set of quantities. Estimate the mean of a grouped frequency distribution from discrete data. Use the mean, median, mode and range to compare two sets of data. Work out the probability of combined events including the use of diagrams and tables, including two-way tables. Express probabilities as fractions, decimals and percentages. Draw and interpret scatter diagrams and recognise positive and negative correlation.</p> <p style="text-align: center;">REVISION</p> |
| | Links to White Rose Maths | Probability |
| Spring 2 | Recap / Consolidation | As needed from above. |
| Summer 1 | Exam Preparation | Level 2 |
| Summer 2 | Consolidation | As needed from above. |