



MAPLE HAVEN SCHOOL

MATHEMATICS

PATHWAY 2-4



MAPLE HAVEN SCHOOL

Maths curriculum tree map

A coherent framework with smaller steps for access, understanding and challenge

Why we use White Rose Maths

At Maple Haven School, we use White Rose Maths as the framework for our mathematics curriculum. Its carefully sequenced units help us build learning from Foundation to Year 6, revisit key ideas and make connections between topics. The framework supports a consistent approach while allowing us to respond to the needs of our pupils.

Making every step accessible

We use the White Rose small steps as a starting point and break them down further where needed. Teaching will include clear modelling, practical resources, visual representations, mathematical language, supported practice and regular checks for understanding. Pupils will have time to revisit and secure learning, with support adapted so that all pupils can access the curriculum.

Maintaining challenge

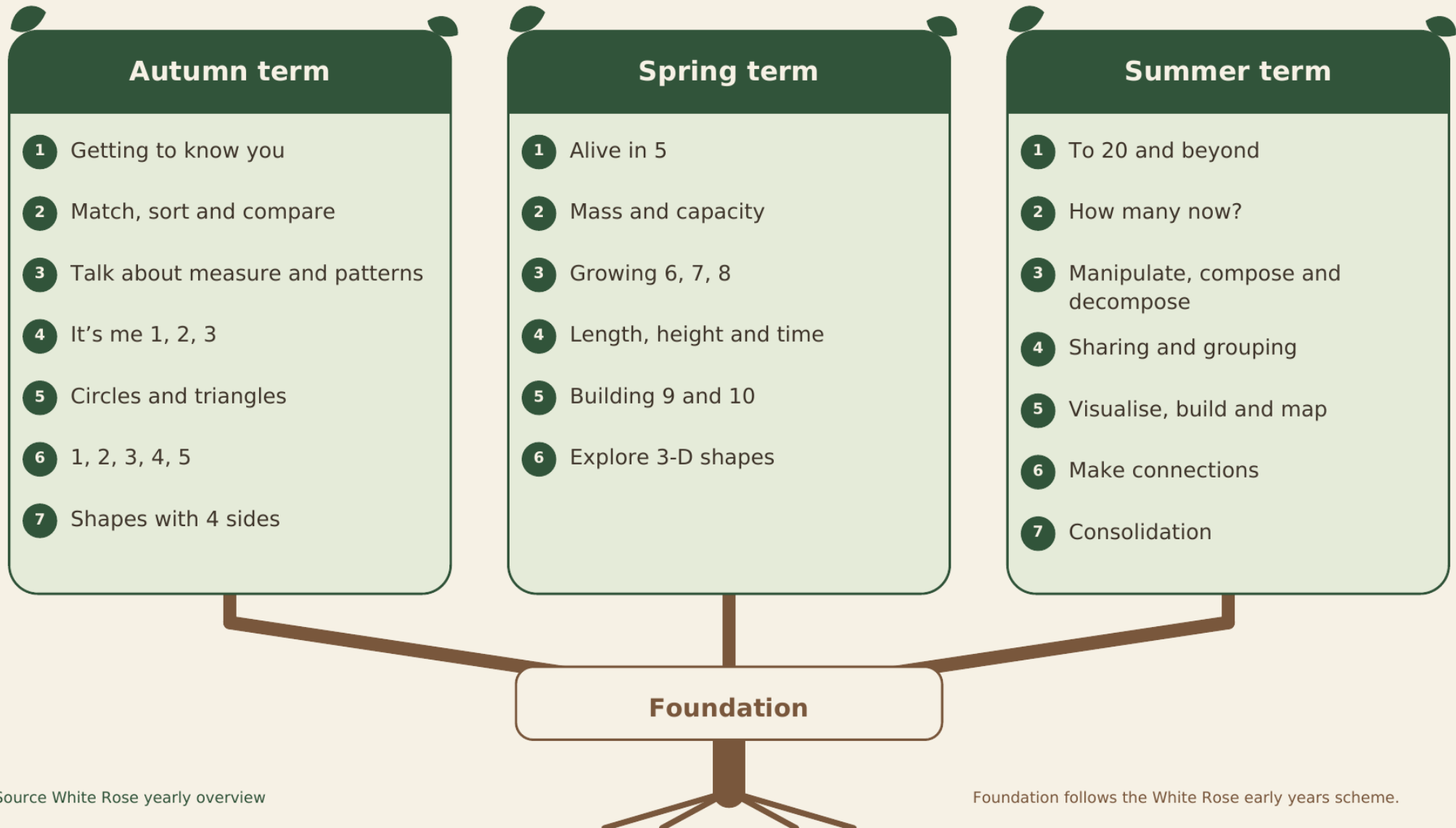
Smaller steps maintain ambitious expectations. We will challenge pupils through reasoning, explaining their thinking, comparing methods and applying learning to problems. As pupils become more secure, we will adapt support and deepen tasks so that each pupil develops confidence, independence and understanding.

White Rose Maths framework | Foundation to Year 6



Foundation maths curriculum

Read each term branch from top to bottom in teaching order

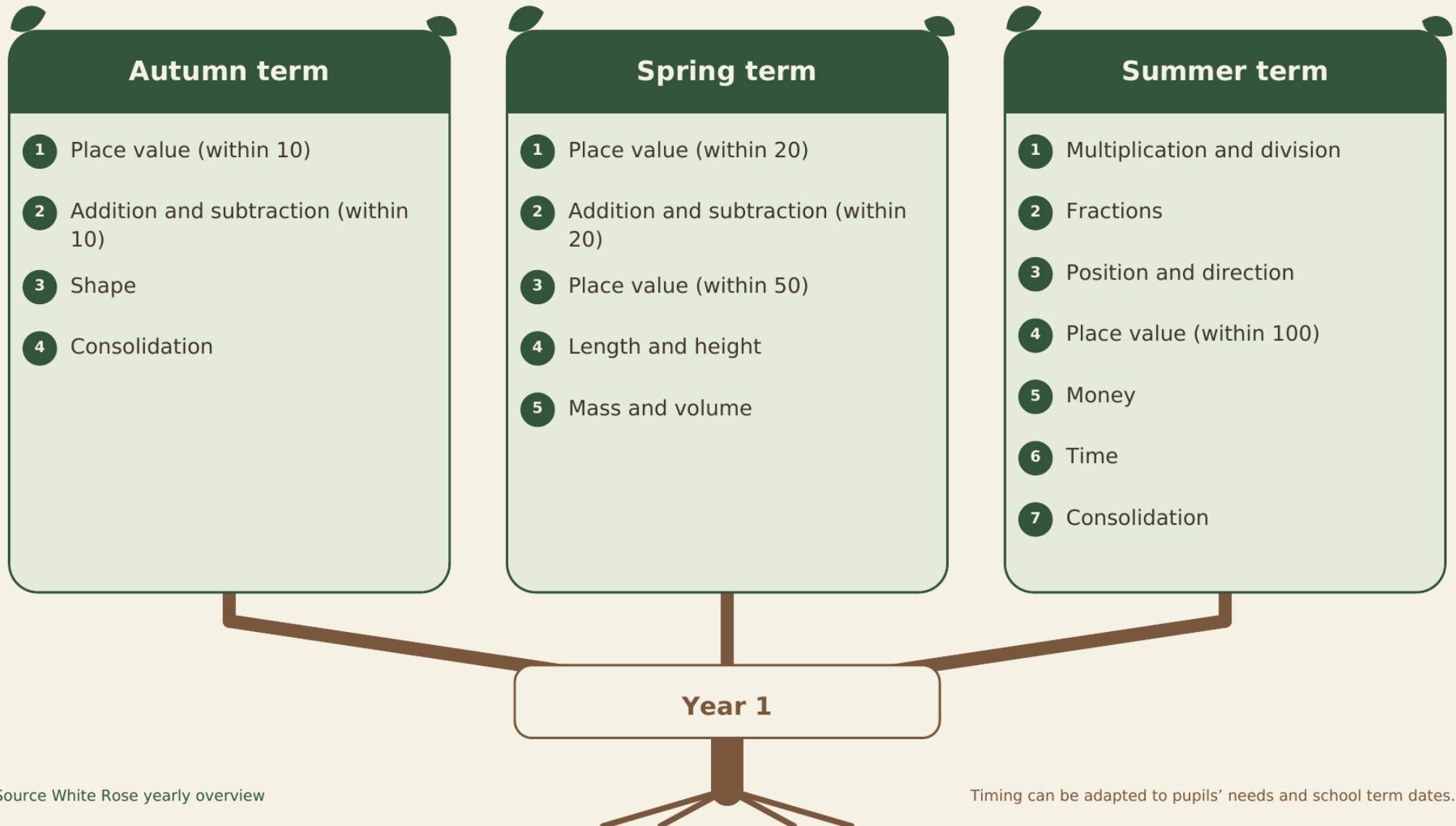


Source White Rose yearly overview

Foundation follows the White Rose early years scheme.

Year 1 maths curriculum

Read each term branch from top to bottom in teaching order

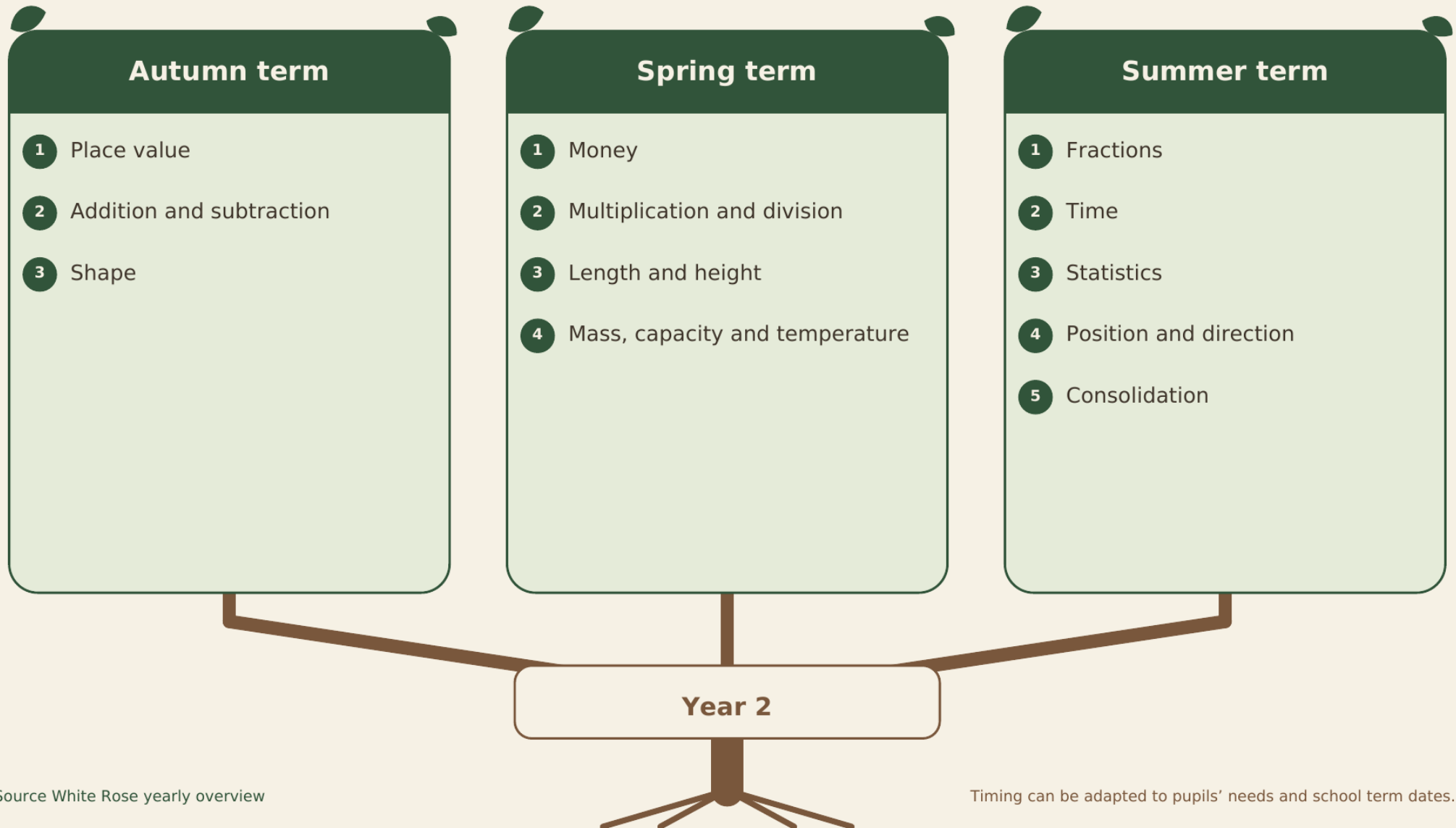


Source White Rose yearly overview

Timing can be adapted to pupils' needs and school term dates.

Year 2 maths curriculum

Read each term branch from top to bottom in teaching order

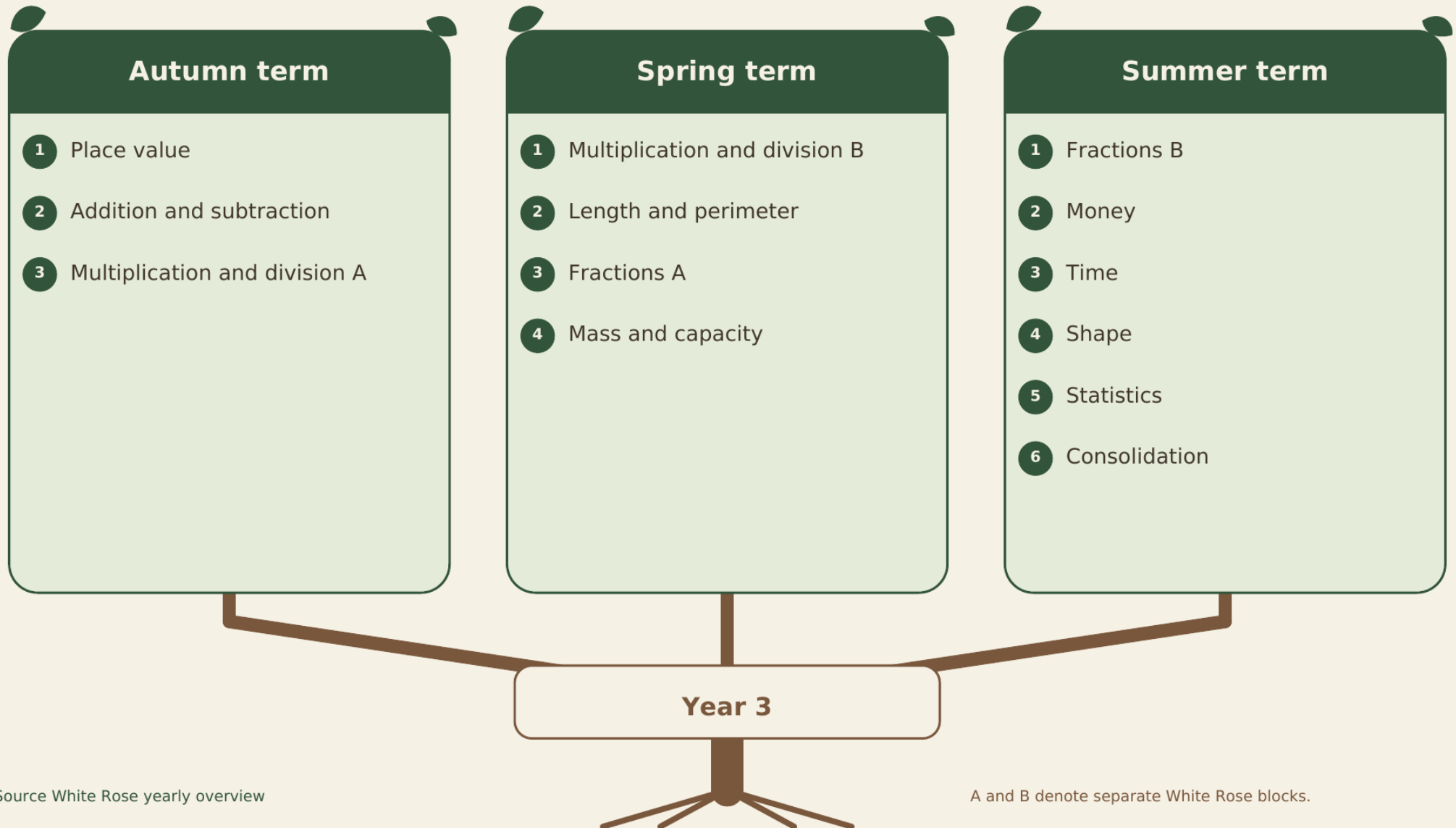


Source White Rose yearly overview

Timing can be adapted to pupils' needs and school term dates.

Year 3 maths curriculum

Read each term branch from top to bottom in teaching order

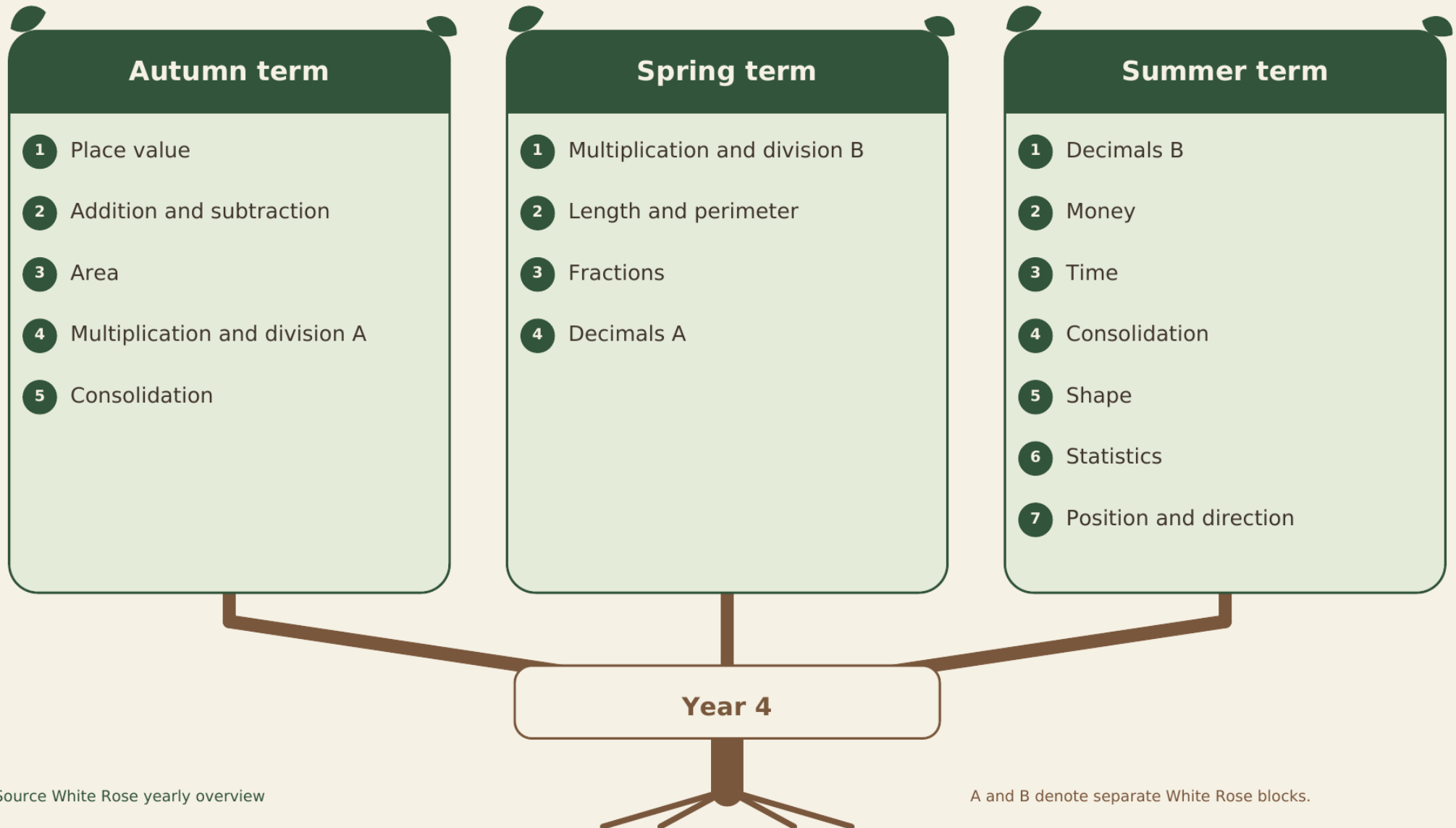


Source White Rose yearly overview

A and B denote separate White Rose blocks.

Year 4 maths curriculum

Read each term branch from top to bottom in teaching order

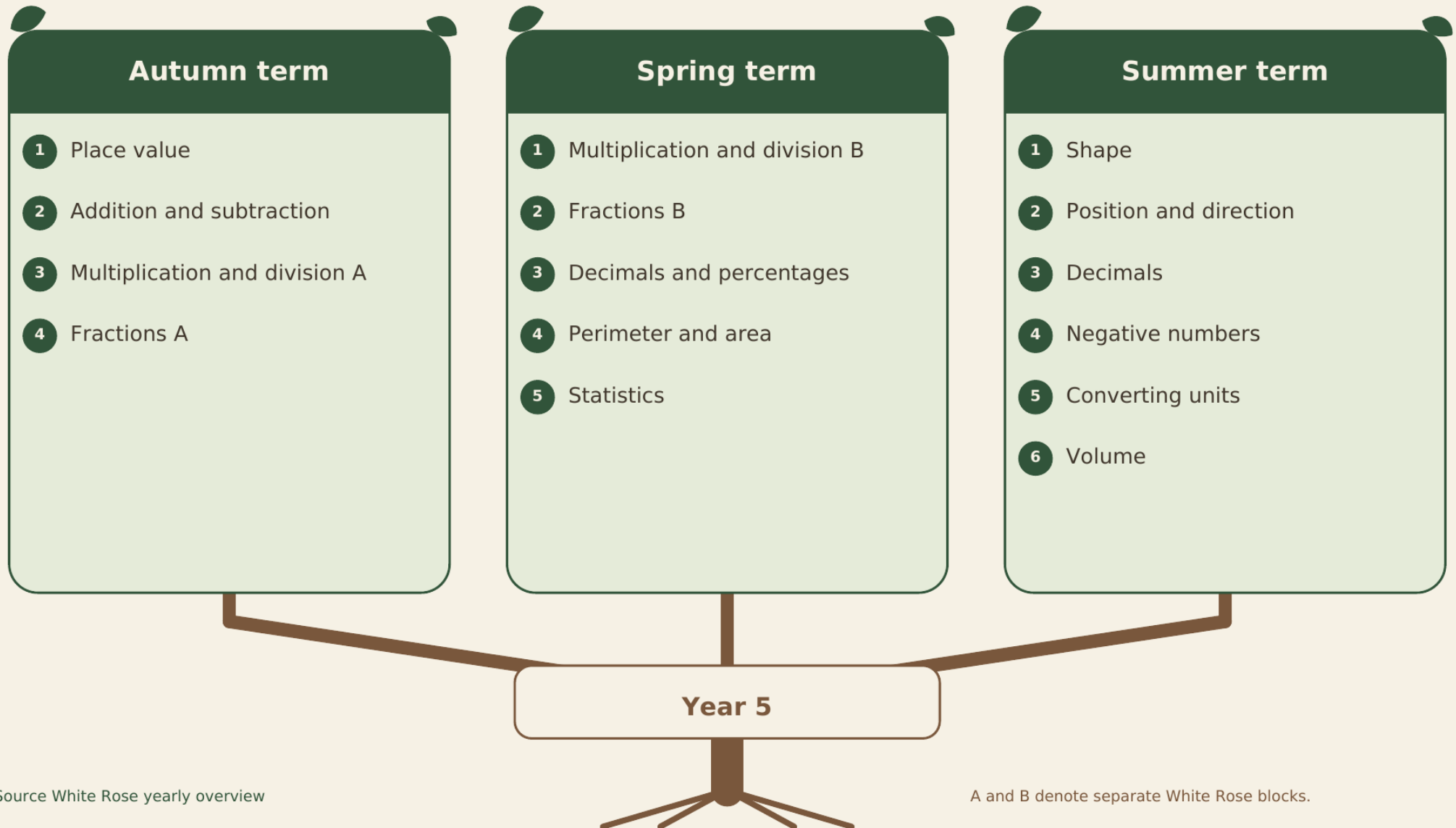


Source White Rose yearly overview

A and B denote separate White Rose blocks.

Year 5 maths curriculum

Read each term branch from top to bottom in teaching order

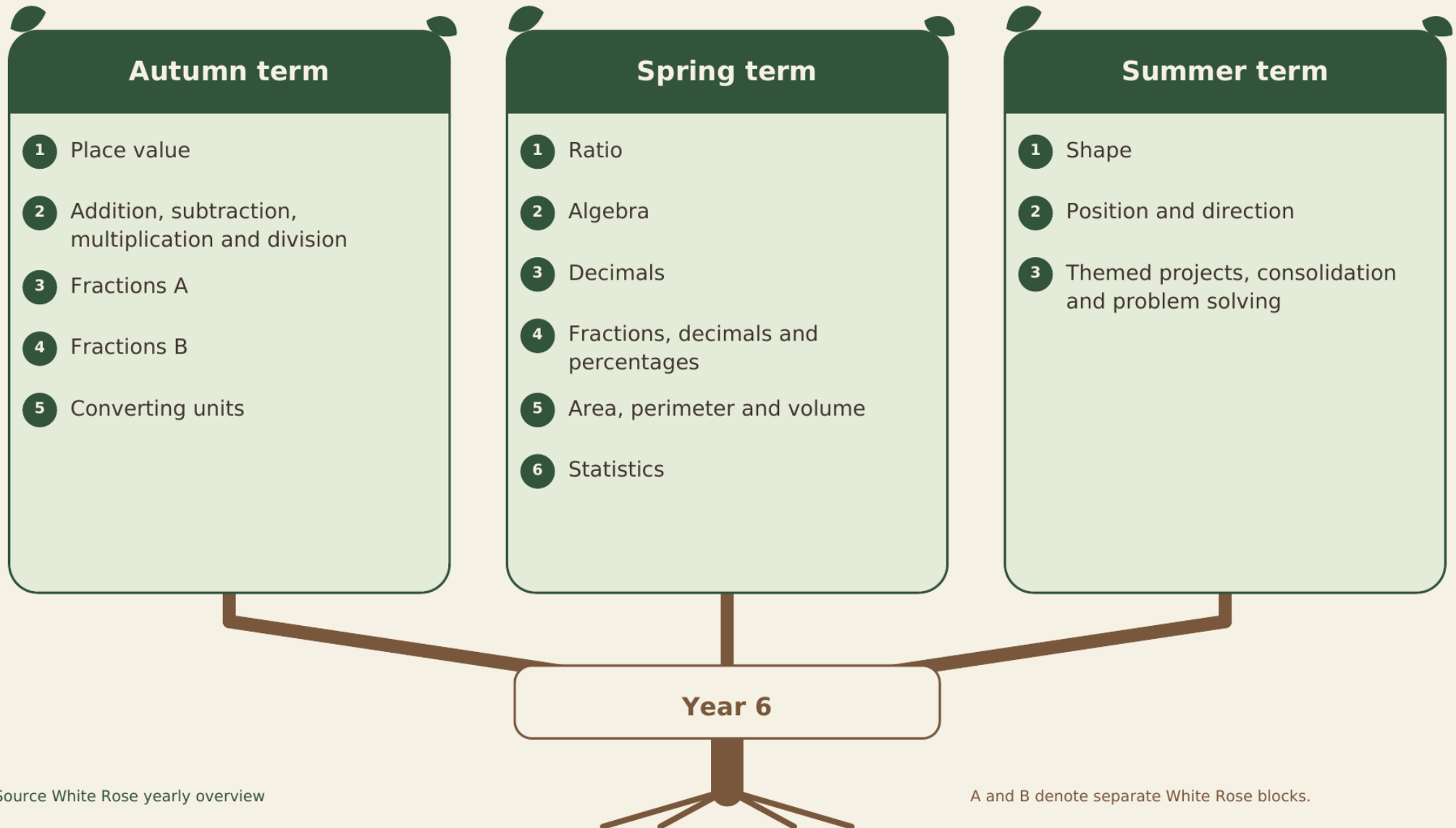


Source White Rose yearly overview

A and B denote separate White Rose blocks.

Year 6 maths curriculum

Read each term branch from top to bottom in teaching order



Source White Rose yearly overview

A and B denote separate White Rose blocks.



Maple Haven School

Math learning objectives

Foundation to Year 6 • Road Map and White Rose Maths cross reference

This curriculum breakdown turns the Maple Maths Road Map into teachable learning objectives, organised by year group and the strands in the Maths Key. White Rose Maths provides the sequence and the linked teaching blocks. Foundation is used throughout as the school's name for the early years group.

Our framework and our pupils

At Maple Haven, White Rose Maths gives us a connected framework for developing mathematical understanding. Teachers will break the learning down further when pupils need smaller steps, using practical resources, visual models, clear language and supported practice. Regular assessment will guide the pace and the support provided.

Pupils will also be challenged to explain their thinking, compare methods, find patterns and apply learning to unfamiliar or everyday problems. Smaller steps support access while maintaining ambitious expectations and opportunities to develop independence.

Using the Maths Key

Strand names retain the meaning of the supplied Key. The green, cream and brown design replaces its original colour coding, so use the written strand names to identify content.

Maths Key strand	What it covers in this breakdown
Place Value	Counting, representing, comparing, ordering, partitioning, rounding and negative numbers.
Add/Subtract	Number bonds, combining and separating quantities, mental and written calculations, and checking.
Multiplication/Division	Equal groups, tables, scaling, factors, multiples, products, quotients and remainders.
Measurement	Length, height, mass, capacity, temperature, money, time, perimeter, area and volume.
Shape	Identifying, describing, sorting and constructing 2-D and 3-D shapes, including nets.
Fractions	Equal parts, fractions of sets, equivalence, mixed numbers and fraction calculations.
Geometry	Position, movement, turns, angles, symmetry, coordinates, translations and reflections.
Decimals	Decimal place value, comparison, rounding and calculations.
Percentages	Parts per hundred, equivalence and percentages of amounts.
Statistics	Collecting and representing data, interpreting charts and tables, and calculating mean.
Problem Solving & Life Skills	Reasoning and practical application across all strands; ratio and algebra are grouped here because they have no separate heading in the Key.

Foundation learning objectives

Part 1 of 2 • Number and calculation

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Place Value	WR foundation Prepares for sorting, counting and representing objects	- Match and sort objects by an attribute - Count objects with one number name for each object - Recognise that the last number counted gives the total	Autumn: Match, sort and compare; It's me 1, 2, 3
Place Value	WR foundation Prepares for number recognition and comparison	- Recognise small quantities without counting, initially to 3 then to 5 - Match numerals to quantities within 10 - Compare groups using more, fewer and equal	Autumn: It's me 1, 2, 3; 1, 2, 3, 4, 5 Spring: Alive in 5; Building 9 and 10
Add/Subtract	WR foundation Prepares for part-whole models and number bonds	- Explore different ways to make numbers within 10 - Identify one more and one fewer using objects - Recall number bonds to 5 and explore bonds to 10	Autumn: It's me 1, 2, 3 Spring: Alive in 5; Growing 6, 7, 8; Building 9 and 10
Place Value	WR foundation Prepares for counting forwards and backwards	- Build and describe numbers beyond 10 using a ten and extra ones - Count beyond 20 and notice the repeating counting pattern - Explore adding and taking away objects through stories	Summer: To 20 and beyond; How many now?

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Foundation learning objectives

Part 2 of 2 • Further learning and applications

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Multiplication/ Division	WR foundation Prepares for grouping, sharing and doubling	• Share objects fairly and check whether groups are equal • Make equal groups and describe what is left over • Explore doubles and odd and even arrangements practically	Spring: Growing 6, 7, 8 Summer: Sharing and grouping
Measurement	WR foundation Prepares for comparing measures and time	• Compare length, height, mass and capacity through practical activities • Use longer, shorter, heavier, lighter, full and empty accurately • Sequence familiar events and discuss duration	Autumn: Talk about measure and patterns Spring: Mass and capacity; Length, height and time
Shape / Geometry	WR foundation Prepares for identifying shapes and describing position	• Recognise circles, triangles and shapes with four sides • Explore solid shapes and combine or separate shapes to make new arrangements • Describe position and routes using practical models	Autumn: Circles and triangles; Shapes with 4 sides Spring: Explore 3-D shapes Summer: Manipulate, compose and decompose; Visualise, build and map
Problem Solving & Life Skills	WR foundation Prepares for applying the Road Map skills	• Copy, continue and create simple repeating patterns • Explain a practical choice through words, actions or objects • Apply counting, sharing and comparing in everyday play	Autumn: Talk about measure and patterns Summer: Make connections Across all blocks

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 1 learning objectives

Part 1 of 2 • Number and calculation

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Place Value	RM Sort, count and represent objects; place value to 100	• Read and represent numbers within 10, then 20, 50 and 100 • Count forwards and backwards from different starting numbers • Explain tens and ones with objects and place-value models	Autumn: Place value within 10 Spring: Place value within 20 and 50 Summer: Place value within 100
Place Value	RM Partition ones and tens; compare and order; number line to 100	• Partition a two-digit number into tens and ones • Compare and order numbers and groups • Locate numbers on a number line and explain an estimate	Place value blocks across the year
Add/Subtract	RM Symbols; part-whole models; bonds to 10 and 20	• Explain +, – and = using objects and pictures • Connect parts and a whole to addition and subtraction sentences • Recall bonds to 10 and use them to develop bonds within 20	Autumn: Addition and subtraction within 10 Spring: Addition and subtraction within 20
Add/Subtract	RM Add or subtract 1 or 2; single-digit addition; calculations within 20	• Find one or two more or fewer • Add by combining groups and counting on • Subtract by taking away and finding the difference within 20	Autumn and spring: Addition and subtraction

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Multiplication/ Division	RM link Counting in 2s, 5s and 10s; doubling; sharing and grouping	- Count in 2s, 5s and 10s using objects and number patterns - Make doubles and add equal groups - Solve practical sharing and grouping problems	Summer: Multiplication and division Place value blocks Formal table recall develops in Year 2

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 1 learning objectives

Part 2 of 2 • Further learning and applications

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Fractions	RM Recognise one-half and one-quarter of a shape or quantity	• Explain why fractional parts must be equal • Find a half of a shape, object or small group • Find a quarter through equal sharing into four parts	Summer: Fractions
Measurement	RM Compare length and height; measure length in cm	• Compare and order lengths and heights • Measure using equal non-standard units without gaps • Use a ruler to measure a simple length in centimetres	Spring: Length and height
Measurement	RM Mass in cubes; compare capacity and volume	• Compare objects using heavier and lighter • Measure mass with equal non-standard units • Compare and measure capacity using consistent containers	Spring: Mass and volume
Measurement	RM and WR Days and months; shapes of coins; early clock reading	• Sequence days and months and describe before and after • Recognise common coins and notes • Read o'clock and half past and compare simple durations	Summer: Money; Time Money recognition added from White Rose

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Shape / Geometry / Problem Solving & Life Skills	RM and WR Recognise and sort 2-D and 3-D shapes; position and turns	• Name and sort familiar flat and solid shapes • Describe position, movement and whole, half and quarter turns • Use pictures or objects to solve a one-step everyday problem and explain the answer	Autumn: Shape Summer: Position and direction Reasoning and problem solving across all blocks

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 2 learning objectives

Part 1 of 2 • Number and calculation

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Place Value	RM Read and write numbers to 100; compare with $<$, $>$ and $=$	• Read and write two-digit numbers in numerals and words • Partition numbers flexibly into tens and ones • Compare and order numbers using $<$, $>$ and $=$	Autumn: Place value Partitioning hundreds belongs to Year 3
Place Value / Add/Subtract	RM Count in 3s; add or subtract 10; bonds within 20 and to 100	• Count in steps of 2, 3, 5 and 10 • Add or subtract 10 and explain the change in tens • Use bonds within 20 and multiples-of-10 bonds to 100	Autumn: Place value; Addition and subtraction Counting in 4s is developed in Year 3
Add/Subtract	RM Across 10; two-digit calculations; three one-digit numbers; inverses	• Add and subtract two-digit numbers, including crossing a ten • Add three one-digit numbers using known facts • Compare calculations and use inverse operations to check answers	Autumn: Addition and subtraction
Multiplication/ Division	RM Equal groups; $\times$ and $\div$; 2, 5 and 10 tables	• Make arrays and connect repeated addition to multiplication • Use $\times$ and $\div$ to record equal-group problems • Recall and use the 2, 5 and 10 tables and related division facts	Spring: Multiplication and division

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Multiplication/ Division	RM Odd and even; double and halve numbers to 100	• Recognise odd and even numbers through pairing • Double and halve suitable numbers within 100 using partitioning • Explain the link between doubling and dividing by 2	Spring: Multiplication and division 3 and 4 tables develop in Year 3

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 2 learning objectives

Part 2 of 2 • Further learning and applications

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Fractions	RM Unit and non-unit fractions; one-third and three-quarters	- Find halves, quarters, thirds and three-quarters of shapes and sets - Distinguish a unit fraction from a non-unit fraction - Explain that one-half and two-quarters represent the same amount	Summer: Fractions
Measurement	RM Count, make and add or subtract money in £ and p	- Count pounds and pence and make an amount in different ways - Add and subtract costs and calculate change - Solve a simple two-step shopping problem	Spring: Money
Measurement	RM cm and m; g and kg; ml and litres; temperature	- Choose and use standard units to measure length, mass and capacity - Read simple scales, compare measures and calculate with them - Read a thermometer and compare temperatures in degrees Celsius	Spring: Length and height; Mass, capacity and temperature
Measurement	RM O'clock, half past, quarter past, quarter to; five-minute intervals	- Read times to five minutes, including quarter past and quarter to - Use minutes in an hour and hours in a day - Apply clock reading to a familiar daily routine	Summer: Time Five-minute reading is introduced here and revisited in Year 3

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Shape / Geometry / Statistics	RM Sides, vertices, faces and edges; movement; tallies and pictograms	• Describe and sort shapes using sides, vertices, faces and edges • Describe movement and turns accurately • Make and interpret tally charts, tables and pictograms, including keys worth 2, 5 or 10	Autumn: Shape Summer: Position and direction; Statistics

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 3 learning objectives

Part 1 of 2 • Number and calculation

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Place Value	RM bridge Partition hundreds; compare totals; number-line estimates	• Read, write and represent numbers to 1,000 • Partition into hundreds, tens and ones and in alternative ways • Compare, order and estimate numbers using scales and number lines	Autumn: Place value Bridge between Road Map numbers to 100 and to 10,000
Add/Subtract	RM link Add and subtract 100; develop larger-number calculations	• Add or subtract ones, tens and hundreds from a three-digit number • Add and subtract up to three-digit numbers using column methods • Estimate an answer and check it using the inverse	Autumn: Addition and subtraction
Multiplication/Division	RM Count in 3s and 4s; know 3 and 4 tables	• Recall the 3 and 4 tables and related division facts • Recall and use the 8 table and connect it to doubling • Use known facts to solve equal-group problems	Autumn: Multiplication and division A The 8 table completes the White Rose Year 3 sequence
Multiplication/Division	RM link Multiplication and division problems; larger-number calculations	• Multiply a two-digit number by a one-digit number • Divide two-digit numbers using partitioning and explain remainders • Solve scaling and simple correspondence problems	Spring: Multiplication and division B

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Fractions	RM link Unit and non-unit fractions; equivalent fractions; add and subtract fractions	• Use numerator and denominator to describe fractions • Compare fractions with the same denominator and identify equivalents using models • Add and subtract fractions with the same denominator within one whole	Spring: Fractions A Summer: Fractions B

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 3 learning objectives

Part 2 of 2 • Further learning and applications

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Fractions	RM Fractions of an amount	- Find a unit fraction of a set by sharing equally - Find a non-unit fraction using the unit fraction - Explain the result using a bar model or objects	Summer: Fractions B
Measurement	RM link Length calculations and perimeter; mass and capacity	- Measure and convert between mm and cm, and cm and m - Measure or calculate the perimeter of a simple shape - Use g and kg, and ml and litres, including mixed-unit comparisons	Spring: Length and perimeter; Mass and capacity
Measurement	RM link Pounds and pence; money calculations; telling the time	- Convert between pounds and pence and calculate change - Read analogue time to the minute and read digital times using am and pm - Calculate simple durations and compare units of time	Summer: Money; Time
Shape / Geometry	RM bridge Shape properties; measuring and classifying angles	- Identify right angles and compare other angles with a right angle - Recognise horizontal, vertical, parallel and perpendicular lines - Draw and describe 2-D shapes and make or describe 3-D shapes	Summer: Shape Preparation for later angle measurement in degrees

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Statistics / Problem Solving & Life Skills	RM Bar charts, pictograms and tables	• Collect data and choose an appropriate chart or table • Read and draw pictograms and bar charts using a scale • Answer comparison and difference questions and explain what the data shows	Summer: Statistics Practical applications across all blocks

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 4 learning objectives

Part 1 of 2 • Number and calculation

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Place Value	RM Numbers to 10,000; partition thousands; number line	• Read and write numbers to 10,000 in numerals and words • Partition into thousands, hundreds, tens and ones • Compare, order and estimate positions on a number line	Autumn: Place value Ten-thousands partitioning extends in Year 5
Place Value / Add/Subtract	RM Rounding to 10, 100 and 1,000; add or subtract 1,000; four-digit calculations	• Round a number to the nearest 10, 100 or 1,000 • Add and subtract four-digit numbers using column methods • Estimate and use inverse operations to check a calculation	Autumn: Place value; Addition and subtraction
Multiplication/ Division	RM 6, 7 and 8 tables; counting in 6s, 7s, 8s and 9s; tables to 12 ×	• Recall multiplication and division facts for all tables up to 12×12 • Connect related tables and use known facts to derive others • Multiply three numbers using an efficient grouping	Autumn: Multiplication and division A Spring: Multiplication and division B The 8 table is introduced in Year 3
Multiplication/ Division	RM Multiply by 10 and 100; multiply or divide two- and three-digit numbers	• Multiply and divide whole numbers by 10 and 100 • Multiply two- and three-digit numbers by a one-digit number • Divide two- and three-digit numbers by a one-digit number, including remainders	Spring: Multiplication and division B

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Fractions	RM Equivalent fractions; mixed and improper forms; add and subtract fractions	• Use diagrams and number lines to identify equivalent fractions • Convert between mixed numbers and improper fractions • Add and subtract fractions with the same denominator, including crossing a whole	Spring: Fractions Different denominators develop in Years 5 and 6

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 4 learning objectives

Part 2 of 2 • Further learning and applications

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Decimals	RM Tenths and hundredths as decimals and on a number line; divide by 10 and 100	• Represent tenths and hundredths as fractions and decimals • Locate these decimals on a number line • Divide one- and two-digit numbers by 10 or 100 and explain the place-value change	Spring: Decimals A
Decimals / Measurement	RM Order and round decimals; decimal money; £ and p conversions	• Compare and order numbers with up to two decimal places • Round a decimal to the nearest whole number • Write money in decimal notation, convert £ and p and solve cost or change problems	Summer: Decimals B; Money
Measurement	RM Kilometres; perimeter of regular and irregular shapes; area	• Convert between kilometres and metres • Calculate perimeters, including missing side lengths • Find area by counting squares and distinguish area from perimeter	Spring: Length and perimeter Autumn: Area Multiplicative area formula develops in Year 5
Measurement	RM Analogue and digital time; 12-hour and 24-hour clocks	• Convert between analogue and digital times • Convert to and from the 24-hour clock • Use years, months, weeks, days, hours, minutes and seconds in problems	Summer: Time

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Shape / Geometry / Statistics	RM and WR Angle classification; bar charts; position and movement	• Classify triangles and quadrilaterals and identify lines of symmetry • Compare acute, obtuse and right angles and describe coordinates or translations in the first quadrant • Interpret charts and draw or read simple line graphs	Summer: Shape; Position and direction; Statistics Symmetry and coordinates added from White Rose

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 5 learning objectives

Part 1 of 2 • Number and calculation

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Place Value	RM Compare and order numbers to 1,000,000	• Read, write, compare and order numbers to 1,000,000 • Explain each digit's value and partition numbers flexibly • Round to a stated place value to make a useful estimate • Read Roman numerals to 1,000	Autumn: Place value Roman numerals to 1,000 are a White Rose addition
Add/Subtract	RM Add and subtract numbers up to 1,000,000	• Add and subtract numbers with more than four digits using column methods • Select an efficient mental or written strategy • Solve multi-step problems and justify an estimate or check	Autumn: Addition and subtraction
Multiplication/ Division	RM Common factors and multiples; primes; square and cube numbers	• Find factors, factor pairs and common multiples • Identify prime numbers and recall primes to 19 • Recognise square and cube numbers and explain their structure	Autumn: Multiplication and division A
Multiplication/ Division	RM Multiply three- and four-digit numbers by two digits; division problems	• Multiply up to four-digit numbers by one- or two-digit numbers • Divide up to four-digit numbers by a one-digit number using short division • Interpret remainders in a practical problem	Spring: Multiplication and division B Long division by two digits belongs to Year 6

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Fractions	RM Different denominators; mixed numbers; multiply fractions by integers	• Convert mixed numbers and improper fractions and compare them • Add and subtract fractions using a common denominator where denominators are multiples • Multiply proper fractions and mixed numbers by a whole number	Autumn: Fractions A Spring: Fractions B

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 5 learning objectives

Part 2 of 2 • Further learning and applications

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Decimals / Percentages	RM Equivalent fractions, decimals and percentages; powers of 10	• Read and order decimals to three decimal places • Convert familiar fractions, decimals and percentages, explaining percentages as parts per hundred • Multiply and divide decimals by 10, 100 and 1,000	Spring: Decimals and percentages Summer: Decimals Percentage-of-amount calculations develop in Year 6
Place Value / Decimals	RM Negative numbers; later decimal calculations	• Use a number line to compare negative and positive values • Count through zero and find differences in context • Add and subtract decimals using place value, including regrouping	Summer: Negative numbers; Decimals
Measurement	RM Metric and imperial measures; rectangle area; compound shapes	• Convert between common metric units and use approximate imperial equivalents • Calculate rectangle area using length $\times$ width and find area of compound rectilinear shapes • Solve perimeter, timetable and capacity or volume problems	Spring: Perimeter and area Summer: Converting units; Volume Formula for cuboid volume develops in Year 6
Shape / Geometry	RM and WR Measure and classify angles; calculate angles; shape properties	• Measure and draw angles in degrees with a protractor • Calculate missing angles on a line and around a point • Identify regular and irregular polygons and describe translations or reflections	Summer: Shape; Position and direction

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Statistics / Problem Solving & Life Skills	RM and WR Line graphs; tables; application of measures	• Read and draw line graphs and compare changing values • Read two-way tables and timetables • Choose operations to solve practical problems and explain the method	Spring: Statistics Summer: Converting units Timetables added explicitly from White Rose

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 6 learning objectives

Part 1 of 3 • Number and fraction calculations

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Place Value	RM Read and write numbers to 10,000,000	• Read, write, compare and order numbers to 10,000,000 • Explain digit values and round to a useful degree of accuracy • Use negative values in context and find intervals across zero	Autumn: Place value
Add/Subtract / Multiplication/ Division	RM Large-number calculations; common factors and multiples; long division; order of operations	• Add and subtract large numbers accurately and choose efficient mental or written methods • Multiply up to four-digit numbers by a two-digit number • Use long division with two-digit divisors and interpret remainders • Apply the order of operations and use factors or multiples to simplify work	Autumn: Addition, subtraction, multiplication and division
Fractions	RM Different denominators; mixed numbers; fractions of an amount	• Simplify and compare fractions using common factors and multiples • Add and subtract fractions and mixed numbers with different denominators • Calculate a fraction of an amount and find the whole from a known part	Autumn: Fractions A; Fractions B

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Fractions	RM adjusted Multiply fractions; divide fractions by integers and fractions	• Multiply two proper fractions and simplify the result • Divide a proper fraction by a positive whole number • Explain the operation using a diagram or bar model	Autumn: Fractions B Division by a fraction is beyond this Year 6 mapping

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 6 learning objectives

Part 2 of 3 • Decimals percentages ratio and algebra

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Decimals	RM Multiply or divide decimals by powers of 10 and by integers	• Multiply and divide decimals by 10, 100 and 1,000 • Multiply a decimal by a whole number and divide a decimal by a whole number • Estimate the result and calculate in a money or measure context	Spring: Decimals
Percentages / Fractions / Decimals	RM Equivalent forms; percentage of amounts	• Convert between fraction, decimal and percentage representations • Compare quantities expressed in different forms • Find percentages of an amount and solve missing-value problems	Spring: Fractions, decimals and percentages
Problem Solving & Life Skills	RM Understand ratio; ratio and fractions	• Describe the relative sizes of two quantities using ratio language and notation • Distinguish a part-to-part ratio from a fraction of the whole • Solve scaling, recipe, ratio and proportion problems	Spring: Ratio Ratio is grouped here because the Key has no ratio strand
Problem Solving & Life Skills	WR addition Algebra is not named on the Road Map	• Use a simple rule or formula to represent a relationship • Form and solve one- and two-step equations • Find possible pairs of values in a problem with two unknowns	Spring: Algebra

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Year 6 learning objectives

Part 3 of 3 • Measures geometry data and applications

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Measurement	RM Convert and calculate metric measures; triangles; compound shapes; cuboid volume	• Convert metric measures and use miles and kilometres in context • Calculate areas of triangles, parallelograms and compound shapes • Calculate cube and cuboid volume using cubic units	Autumn: Converting units Spring: Area, perimeter and volume
Shape / Geometry	RM and WR Calculate angles; angles in shapes; 3-D nets	• Calculate missing angles using line, point, opposite-angle and polygon facts • Draw shapes to stated dimensions and identify nets of 3-D shapes • Plot coordinates in all four quadrants and describe translations or reflections	Summer: Shape; Position and direction Four-quadrant coordinates added from White Rose
Statistics	RM Line graphs, pie charts and calculating mean	• Read and compare data in line graphs and pie charts • Draw a pie chart using proportions, percentages and angles • Calculate the mean and explain what it represents	Spring: Statistics

Maths Key strand	Road Map link	Pupils will learn to	White Rose block or location
Problem Solving & Life Skills	RM progression Preparation for further education and everyday application	• Select and justify operations in a multi-step real-life problem • Apply ratio, money, measures or data to a practical project • Check whether an answer is reasonable and communicate a conclusion	Summer: Themed projects, consolidation and problem solving NOCN outcomes require their own qualification specification

Teaching sequence: model with objects → represent visually → practise with support → apply independently → explain and extend.

Sources and cross reference

White Rose sources

Primary maths schemes and resources | Early years maths framework

The year-group locations refer to the White Rose primary scheme sequence dated 2022 and the revised early years sequence dated 2023. Block names are retained to make the cross reference usable. Use the linked scheme documents for the full teaching guidance and exact small-step wording. Source check 30 September 2026.

Year 1: [Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

Year 2: [Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

Year 3: [Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

Year 4: [Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

Year 5: [Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

Year 6: [Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

Additional verified guidance

[White Rose calculation policy across all year groups](#)

[White Rose Year 6 spring small steps including ratio and algebra](#)

[White Rose early years autumn scheme](#)

[White Rose early years spring guidance](#)

[White Rose early years summer guidance](#)

[DfE mathematics programmes of study for checking primary expectations](#)



Maple Haven School

Math vocabulary by year group

Foundation to Year 6

This document provides a vocabulary planning guide for Maple Haven's maths curriculum. The words are grouped by topic and linked to White Rose Maths teaching blocks so that staff can use consistent mathematical language across the school.

Using the vocabulary guide

Each year-group page includes language to teach, practise and revisit during that year. The lists are cumulative: pupils continue to use vocabulary learned in earlier years. A word appearing on a later page does not mean it is first introduced in that year.

Foundation is used throughout for the early years group. Foundation language develops through counting, practical activities, play, discussion and exploration of shape and measure. Year 1 to Year 6 vocabulary follows the topics in the White Rose primary schemes.

At Maple Haven, we will model vocabulary with objects, pictures and clear explanations, giving pupils repeated opportunities to use the words in context. We will select language at each pupil's starting point and extend its use through explanations, comparisons and mathematical reasoning.

What the columns show

Column	Purpose
Maths topic	The area of mathematics in which the vocabulary is used.
Vocabulary to teach and revisit	Selected words and phrases for classroom discussion, worked examples and pupil explanations.
White Rose block	The teaching block or blocks to use alongside the vocabulary.

Foundation maths vocabulary

Vocabulary to teach and revisit alongside the White Rose Maths blocks

Maths topic	Vocabulary to teach and revisit	White Rose block
Number and counting	number, numeral, zero, count, subitise, how many, forwards, backwards, before, after, more, fewer, same, equal	Match sort and compare; number blocks from 1 to 10; To 20 and beyond
Combining and separating	part, whole, altogether, add, take away, one more, one less, left, first, now	Alive in 5; Growing 6 7 8; Building 9 and 10; How many now
Sharing and grouping	share, sharing, group, equal groups, unequal groups, fair, pair, double, odd, even	Growing 6 7 8; Sharing and grouping
Patterns	match, sort, same, different, pattern, copy, continue, repeat, repeating pattern	Match sort and compare; Talk about measure and patterns; Make connections
Length height and time	long, short, longer, shorter, tall, taller, height, length, first, next, then, before, after, morning, afternoon, today, tomorrow, yesterday	Talk about measure and patterns; Length height and time
Mass and capacity	heavy, light, heavier, lighter, mass, balance, full, empty, more, less	Mass and capacity
Shape	circle, triangle, square, rectangle, side, corner, curved, straight, flat, solid, 3-D shape, build, combine	Circles and triangles; Shapes with 4 sides; Explore 3-D shapes; Manipulate compose and decompose
Position and spatial language	in, on, under, over, behind, in front, beside, between, above, below, position, route, map	Circles and triangles; Shapes with 4 sides; Visualise build and map

Year 1 maths vocabulary

Vocabulary to teach and revisit alongside the White Rose Maths blocks

Maths topic	Vocabulary to teach and revisit	White Rose block
Place value	ones, tens, digit, number, numeral, place value, represent, partition, compare, order, greater than, less than, equal to, most, fewest, number line, first, second, third	Place value within 10 20 50 and 100
Addition and subtraction	add, addition, plus, subtract, subtraction, minus, equals, total, altogether, difference, part, whole, number bond, fact family, count on, count back, double, near double	Addition and subtraction within 10 and 20
Multiplication and division	equal groups, unequal groups, array, repeated addition, double, share, sharing, grouping, count in 2s 5s and 10s	Multiplication and division
Fractions	whole, equal parts, half, halves, quarter, quarters, one-half, one-quarter	Fractions
Length and height	length, height, longer, shorter, taller, measure, compare, unit, centimetre, ruler	Length and height
Mass and volume	mass, heavier, lighter, balance, capacity, volume, full, empty, half full, container, non-standard unit	Mass and volume
Money and time	coin, note, money, pound, pence, value, day, week, month, year, hour, minute, before, after, o'clock, half past	Money; Time
Shape	2-D shape, 3-D shape, circle, triangle, square, rectangle, cube, cuboid, cone, cylinder, sphere, pyramid, side, corner, face, curved, straight, sort	Shape
Position and direction	left, right, above, below, between, forwards, backwards, full turn, half turn, quarter turn, three-quarter turn	Position and direction

Year 2 maths vocabulary

Vocabulary to teach and revisit alongside the White Rose Maths blocks

Maths topic	Vocabulary to teach and revisit	White Rose block
Place value	ones, tens, digit, value, partition, exchange, estimate, number line, interval, compare, order, greater than, less than, equal to	Place value
Addition and subtraction	calculation, operation, method, number bond, related facts, sum, difference, inverse, exchange, crossing a ten, increase, decrease	Addition and subtraction
Multiplication and division	multiply, multiplication, times, divide, division, equal groups, array, repeated addition, times-table, odd, even, double, halve, sharing, grouping	Multiplication and division
Fractions	whole, equal parts, half, quarter, third, two-quarters, three-quarters, unit fraction, non-unit fraction, equivalent, numerator, denominator	Fractions
Length mass capacity and temperature	centimetre, metre, gram, kilogram, millilitre, litre, length, height, mass, capacity, volume, scale, temperature, thermometer, degrees Celsius	Length and height; Mass capacity and temperature
Money	pound, pence, coin, note, value, amount, cost, total, change, equivalent	Money
Time	o'clock, half past, quarter past, quarter to, five minutes, hour, minute, second, clockwise, day, month, year	Time
Shape and position	side, vertex, vertices, edge, face, line of symmetry, symmetrical, 2-D, 3-D, clockwise, anticlockwise, turn, direction, movement	Shape; Position and direction
Statistics	collect, record, data, tally, tally chart, table, pictogram, key, block diagram, most, least, total, difference	Statistics

Year 3 maths vocabulary

Vocabulary to teach and revisit alongside the White Rose Maths blocks

Maths topic	Vocabulary to teach and revisit	White Rose block
Place value	hundreds, tens, ones, three-digit number, partition, place value, ascending, descending, compare, order, estimate, interval	Place value
Addition and subtraction	column addition, column subtraction, exchange, estimate, inverse, operation, calculation, efficient, crossing a ten, crossing a hundred	Addition and subtraction
Multiplication and division	multiple, multiplication, division, product, array, commutative, remainder, scaling, equal groups, sharing, grouping	Multiplication and division A and B
Fractions	numerator, denominator, unit fraction, non-unit fraction, equivalent, compare, order, fraction of an amount, whole, equal parts	Fractions A and B
Length perimeter mass and capacity	millimetre, centimetre, metre, perimeter, length, width, measure, convert, gram, kilogram, millilitre, litre, capacity, scale	Length and perimeter; Mass and capacity
Money	pound, pence, amount, convert, equivalent, cost, total, change	Money
Time	analogue, digital, am, pm, noon, midnight, minute, second, duration, interval, Roman numeral, leap year	Time
Shape	angle, right angle, acute, obtuse, horizontal, vertical, parallel, perpendicular, polygon, side, vertex, edge, face	Shape
Statistics	data, bar chart, pictogram, table, axis, horizontal axis, vertical axis, scale, label, title, key	Statistics

Year 4 maths vocabulary

Vocabulary to teach and revisit alongside the White Rose Maths blocks

Maths topic	Vocabulary to teach and revisit	White Rose block
Place value	thousand, thousands, hundreds, tens, ones, place value, partition, placeholder, Roman numeral, round, nearest, estimate	Place value
Addition and subtraction	column method, exchange, inverse, estimate, efficient, sum, difference, calculation, strategy	Addition and subtraction
Multiplication and division	factor, factor pair, multiple, product, remainder, inverse, multiply, divide, efficient, times-table	Multiplication and division A and B
Fractions	proper fraction, improper fraction, mixed number, equivalent, numerator, denominator, whole, convert, compare	Fractions
Decimals	decimal, decimal point, decimal place, tenths, hundredths, place value, decimal equivalent, compare, order, round	Decimals A and B
Area length and perimeter	area, square unit, count squares, perimeter, rectilinear, length, width, kilometre, metre, convert	Area; Length and perimeter
Money and time	pound, pence, decimal notation, cost, change, estimate, analogue, digital, 12-hour clock, 24-hour clock, duration	Money; Time
Shape and position	equilateral, isosceles, scalene, quadrilateral, parallelogram, rhombus, trapezium, regular, irregular, symmetry, coordinates, grid, first quadrant, translation	Shape; Position and direction
Statistics	data, bar chart, line graph, axis, scale, interval, estimate, comparison	Statistics

Year 5 maths vocabulary

Vocabulary to teach and revisit alongside the White Rose Maths blocks

Maths topic	Vocabulary to teach and revisit	White Rose block
Place value and negative numbers	ten thousand, hundred thousand, million, integer, positive, negative number, zero, round, estimate, power of 10	Place value; Negative numbers
Addition and subtraction	mental method, written method, column method, exchange, estimate, inverse, accurate, approximate, difference, strategy	Addition and subtraction
Multiplication and division	factor, multiple, common factor, common multiple, prime number, composite number, square number, cube number, product, short division, remainder	Multiplication and division A and B
Fractions	equivalent, improper fraction, mixed number, common denominator, numerator, denominator, convert, compare, order, whole	Fractions A and B
Decimals and percentages	decimal place, decimal point, tenths, hundredths, thousandths, percentage, per cent, hundred, equivalent, round	Decimals and percentages; Decimals
Measures	metric, imperial, convert, kilogram, gram, litre, millilitre, kilometre, metre, centimetre, millimetre, inch, pound, pint, perimeter, area, square centimetre, volume, cubic centimetre, capacity	Perimeter and area; Converting units; Volume
Shape	degree, protractor, acute, obtuse, reflex, straight angle, angles around a point, regular polygon, irregular polygon	Shape
Position and direction	coordinate, first quadrant, x-axis, y-axis, translation, reflection, mirror line, position	Position and direction
Statistics and time	line graph, data, scale, interval, two-way table, timetable, duration, comparison	Statistics; Converting units

Year 6 maths vocabulary

Vocabulary to teach and revisit alongside the White Rose Maths blocks

Maths topic	Vocabulary to teach and revisit	White Rose block
Place value and calculations	ten million, integer, negative number, round, estimate, common factor, common multiple, prime, composite, long division, quotient, remainder, order of operations	Place value; Addition subtraction multiplication and division
Fractions	simplify, simplest form, equivalent, common denominator, numerator, denominator, proper fraction, improper fraction, mixed number, whole number	Fractions A and B
Decimals and percentages	decimal place, tenths, hundredths, thousandths, equivalent, percentage, percentage of an amount, rounding, whole	Decimals; Fractions decimals and percentages
Ratio and proportion	ratio, proportion, scale factor, scale drawing, enlargement, scaling, additive, multiplicative, simplest form	Ratio
Algebra	algebra, expression, equation, formula, function, input, output, rule, substitute, substitution, unknown, solve	Algebra
Measures	metric, imperial, convert, mile, kilometre, area, perimeter, base, perpendicular height, triangle, parallelogram, cuboid, volume, cubic unit, formula	Converting units; Area perimeter and volume
Shape	radius, diameter, circumference, centre, net, dimensions, interior angle, vertically opposite angles, angle sum, intersect	Shape
Position and direction	coordinates, four quadrants, origin, x-axis, y-axis, translation, reflection, vertex, positive, negative	Position and direction
Statistics	pie chart, line graph, data, scale, sector, proportion, percentage, mean, average, total, number of values	Statistics

White Rose Maths references

The year-group vocabulary is selected to match the content of the White Rose primary schemes of learning and the revised early years framework. Earlier vocabulary is deliberately repeated where it supports the current topic.

[White Rose primary maths schemes and resources](#)

[White Rose early years maths framework](#)

Schemes of learning by year group

[Year 1: Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

[Year 2: Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

[Year 3: Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

[Year 4: Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

[Year 5: Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

[Year 6: Autumn scheme](#) | [Spring scheme](#) | [Summer scheme](#)

Vocabulary progression reference

[White Rose Primary maths Vocabulary progression document September 2025](#)

The linked vocabulary progression document is authored by White Rose Education and hosted by Lingfield Primary School. It identifies vocabulary by its introduction point; this Maple Haven guide groups selected language for use and revision within each year.

[Primary scheme sequence 2022 and revised early years framework 2023. Reference check 30 September 2026.](#)