



Maths Long Term Plan

Approved By: Senior Leadership

Last Reviewed: September 2026

Next Review Due by: September 2027

What do we want for our pupils?

Intent

We strongly believe that all children, no matter what their starting points, can become confident, competent mathematicians. The use of White Rose Maths is fundamental to ensuring children experience a range of concrete, pictorial and abstract learning to maximise their understanding of mathematics. It is essential that, through EYFS and KS1, children have a secure knowledge of number at the earliest opportunity and use all available time to make as much progress as possible in this area. Our Maths curriculum, through consistent high expectations and challenge, ensures the majority of children leave KS2 with sustained Mastery. This means children are fluent in basic concepts, can reason mathematically and are able to make links with their knowledge to solve problems in relation to National standards. It is our intent that children build on some of the school's intents in Maths specifically, working independently and collaboratively, building on prior knowledge, show resilience and peer and self-reflect.

Implementation

The use of White Rose Maths allows our children to learn through a range of manipulatives on a daily basis, if needed. Children will leave KS1 with a secure understanding of number so they are able to make links between areas in KS2. Maths is taught on a daily basis; staff provide children with questions relating to the National Curriculum standards, stretch children through challenging, reasoning problems and offer effective, immediate, intervention to children who are struggling to understand the concept. This allows children the opportunity to progress as much as possible and have every opportunity to achieve fluency and reason mathematically by the end of KS2. Children who are below age-related expectation receive afternoon interventions (especially in KS1) to help close gaps in knowledge.

What is our goal?

Impact

Our Maths curriculum will ensure the majority of children leave KS2 with fluency and are able to apply knowledge and skills to problem solve. Children will be able to recognise relationships and make links in mathematics. It is essential every child leaves KS2 with vital life skills that are mastered and embedded. We aim for children to leave St Francis with a joy for learning Mathematics.

Assessment in Maths

Summative assessment in Maths take place 3 times per year – end of Autumn, end of Spring and end of Summer.

Teachers analyse results and complete the school's data sheet ready for Pupil Progress meetings. Teachers identify children who are below, children who have not made expected progress, children who are not on track to achieve their target from KS1 and what the teacher is going to do about it.

In addition to this, at the end of each unit, children complete End of Unit Assessments from White Rose as another indicator to see how much progress children have made and to check attainment.

FS1

Autumn Term

Maths Number

Maths Numerical Pattern

Shape, Space and Measure

Spring Term

Maths Number

Maths Numerical Pattern

Shape, Space and Measure

Summer Term

Maths Number

Maths Numerical Pattern

Shape, Space and Measure

Autumn 1

Autumn 2

Spring 1

Maths Number

Children will learn:

- Routines and expectations and children will be introduced to the areas of provision and have opportunities to get to know their peers.

Maths Numerical Pattern

Children will learn:

- To recognise colours.

Shape, Space and Measure

Children will learn:

- To explore and match objects which are the same.
- Can you find one exactly like mine? How do you know it's the same? Can you find one different to mine? Why is this one not like mine?

Sort

- Children learn that collections can be sorted into sets based on attributes such as colour, size or shape.
- Sorting enables the children to consider, what is the same about all the objects in one set and how
- They are different to the other sets.
- They begin to understand that the same collection of objects can be sorted in different ways

Maths Number

Children will learn:

- To understand that when making comparisons a set can have more, the same or fewer than another set.
- To confidently sort collections into sets they learn that these sets can be compared and ordered.

Maths Numerical Pattern

Children will learn:

- To copy, continue and create their own patterns.
- That it is important to provide patterns with at least three full units of repeat.
- To be encouraged to say the pattern out loud

Shape, Space and Measure

Children will learn:

- That objects can be compared and ordered according to their size.
- Encourage the use of language such as big and little, small and large to describe a range of objects.

More specific language such as tall, long, short can also be introduced.

Maths Number

Children will learn:

- To identify representations of 1 and 2
- To subitise or count to find out how many and make their own collections of 1 or 2 objects.
- To match the number names to quantities and numerals.
- To touch count in different arrangements and recognise the final number is the quantity of the set.
- Counting to 1
- Finding 1 object
- Representing 1 on a 5 frame
- A circle – 1 sides shape (including in the environment)
- 1 action e.g. 1 hop, 1 jump, 1 clap
- What is 1 made of 1 nose, 1 mouth, 1 body
- Exploring different varieties of circle
- 1 being the first number, its position on a number line, ordinal numbers
- Numicon 1
- Dice 1
- Subitising 1
- The numeral and formation of 1
- Number 1 in the environment
- Representing 1 using marks, pictures and finger
- Matching numeral to quantity
- They match the number names to quantities and numerals.
- They touch count in different arrangements and recognise the final number is the quantity of the set.
- Counting to 2
- Finding 2 objects
- Representing 2 on a 5 frame
- A semi-circle – 2 sides shape (including in the environment)
- 2 actions e.g. 2 hops, 2 jumps, 2 claps
- What 2 is made of 1 is a part of me, 1 is a part of me and the whole of me is 2
- 2 being the second number, its position on a number line, ordinal numbers
- Numicon 2
- Dice 2
- Subitising 2
- The numeral and formation of 2
- Number 2 in the environment
- Representing 2 using marks, pictures and finger
- Matching numeral to quantity

Maths Numerical Pattern

Children will learn:

- To use real objects to see that the quantity of a group can be changed by adding more.

		Shape, Space and Measure Children will learn: • Weight through carrying heavy and light items. • Encourage them to make direct comparisons holding items to estimate which feels the heaviest then use the balance scales to check. • Prompt them to use the language heavy, heavier than, heaviest, light, lighter than, lightest to compare items starting with items that have an obvious difference in weight. • Avoid common misconception that bigger items are always heavier by providing some small heavier items and some large lighter ones
Spring 2	Summer 1	Summer 2
Maths Number Children will learn: • To identify representations of 1, 2, 3. They subitise or count to find out how many and make their own collections of 1, 2 or 3 objects. • They match the number names to quantities and numerals. • They touch count in different arrangements and recognise the final number is the quantity of the set. • Counting to 3 • Finding 3 objects • Representing 3 on a 5 frame • A triangle – 3 sides shape (including in the environment) • 3 actions e.g. 3 hops, 3 jumps, 3 claps • What is 3 made of - 2 is a part of me, 1 is a part of me and the whole of me is 3. • Exploring different varieties and orientations of triangles. • 3 being the third number, its position on a number line, ordinal numbers • Numicon 3 • Dice 3	Maths Number Children will learn: • Counting to 4 • Number blocks episode 4 • Finding 4 objects • Representing 4 on a 5 frame • Squares and rectangles, 4 sided shapes including in the environment • 4 actions e.g. 4 hops, 4 jumps, 4 claps • Composition of 4 (2 is a part of me, 2 is a part of me and the whole of me is 4; 3 is a part of me, 1 is a part of me and the whole of me is 4) • 4 being the fourth number, its position on a number line, ordinal numbers • Numicon 4 • Dice 4 • Subitising 4 • The numeral and formation of 4 • Number 4 in the environment • Representing 4 using marks, pictures and finger	Maths Number Children will learn: • To subitise up to 5 items and to count forwards and backwards to 5 accurately using the counting principles. • They represent up to 5 items on a five frame. • Counting to 5 • Finding 5 objects • Representing 5 on a 5 frame • Pentagons, 5 sided shapes including in the environment • 5 actions e.g. 5 hops, 5 jumps, 5 claps • Composition of 5 (3 is a part of me, 2 is a part of me and the whole of me is 5; 4 is a part of me, 1 is a part of me and the whole of me is 5) • 5 being the fifth number, its position on a number line, ordinal numbers • Numicon 5 • Dice 5 • Subitising 5 • The numeral and formation of 5 • Number 5 in the environment

• Subitising 3 • The numeral and formation of 3 • Number 3 in the environment • Representing 3 using marks, pictures and finger • Matching numeral to quantity Maths Numerical Pattern Children will learn: • The first, then, now structure can be used to create mathematical stories in meaningful contexts Shape, Space and Measure Children will learn: • By using language to describe length and height e.g. the tree is tall the pencil is short. • When making direct comparisons they may initially say something is bigger than something else. • Encourage them to use more specific mathematical vocabulary in relation to Length • The children should then move on to finding objects that are longer/shorter than a given item. They should be encouraged to utilise Strategies such as direct comparison (e.g. placing objects side by side to determine which is longer).	• Matching numeral to quantity • Children count on and back to 4. • They subitise sets of up to 4 objects to find out how many make their own collections of objects. • They match the number to numerals and quantities and are able to say which sets have more and fewer items. • When counting they continue to learn that the final number they say names the set. Maths Numerical Pattern Children will learn: • To see the link between counting forwards and the one more pattern • To see the link between counting back and the one less pattern. Shape, Space and Measure Children will learn: • The primary focus in relation shapes should be on the properties of shapes. For example, children should be encouraged to notice and describe shapes in the environment and talk about the properties using words such as ‘straight/flat/round/ curved’. • When teaching the names of shapes, wherever possible, real life shapes in the environment should be used. • Note that only flat surfaces should be referred to as faces. Include sorting of natural shapes; the children may sort Stones, for example, into sets that have straight edges, sets that have curved edges etc.	• Representing 5 using marks, pictures and finger • Matching numeral to quantity Maths Numerical Pattern Children will learn: • To continue to count, Subitise and compare as they explore one more and one less. Shape, Space and Measure Children will learn: • To talk about night and day and order key events in their daily routines, such as waking up, coming to school, dinner, and bed time. • They use language to describe when things happen e.g. day, night, morning, afternoon, before after, today, tomorrow. • Encourage the vocabulary of first, next, then and possibly last. • Children explore measuring time • Encourage children to build on their understanding of full and empty Provide opportunities to explore capacity with different materials such as water, sand, rice and loose parts • Initially children should be exposed to the comparison of full, half full, empty using the same container. • Provide different sized and shaped Children need opportunities to be exposed to and to use the language of position and direction; Position: ‘in’, ‘on’, ‘under’. Direction: ‘up’, ‘down’, ‘across’ • Children also need opportunities to use terms which are relative: ‘in front of’, ‘behind’, ‘on top of’. • Create as many opportunities as possible to explore this language such as hunting for hidden objects with some prompts (e.g. look behind the shed). Money.
---	---	--

FS2 <u>Autumn Term</u> Early Mathematical experiences Pattern and early number Numbers within 6 Addition and subtraction within 6 Measures Shape and sorting <u>Spring Term</u> Numbers within 10 Calendar and time Addition and subtraction within 10 Grouping and sharing Number patterns within 15 Doubling and halving Shape and pattern <u>Summer Term</u> Securing addition and subtraction facts Number patterns within 20 Number patterns beyond 20 Money Measures Exploration of patterns within number		
Autumn 1	Autumn 2	Spring 1
Early Mathematical Experiences - Classifying objects based on one attribute - Matching equal and unequal sets - Comparing objects and sets - Ordering objects and sets Pattern and Early Number	Numbers within 6 - Count up to six objects - One more or one fewer - Order numbers 1 – 6 - Conservation of numbers within six Addition and subtraction within 6	Numbers within 10 - Count up to ten objects - Represent, order and explore numbers to ten - One more or fewer, one greater or less Calendar and time - Days of the week, seasons

- Recognise, describe, copy and extend colour and size patterns - Count and represent the numbers 1 to 3 - Estimate and check by counting	- Explore zero - Explore addition and subtraction Measures - Estimate, order compare, discuss and explore capacity, weight and lengths Shape and sorting - Describe, and sort 3-D shapes - Describe position accurately	- Sequence daily events Addition and subtraction within 10 - Explore addition as counting on and subtraction as taking away Grouping and Sharing - Counting and sharing in equal groups - Grouping into fives and tens - Relationship between grouping and sharing
---	---	--

Spring 2	Summer 1	Summer 2
Number patterns within 15 - Count up to 15 objects and recognise different representations - Order and explore number patterns to 15 - One more or fewer Doubling and halving - Doubling and halving - Relationship between doubling and halving Shape and pattern - Describe and sort 2-D and 3-D shapes - Recognise, complete and create patterns	Securing addition and subtraction facts - Commutativity - Explore addition and subtraction - Compare two amounts Number patterns within 20 - Count up to 10 and beyond with objects - Represent, compare and explore numbers to 20 - One more or fewer Number patterns beyond 20 - One more one less - Estimate and count - Grouping and sharing	Money - Coin recognition and values - Combinations to total 20p - Change from 10p Measures - Describe capacities - Compare volumes - Compare weights - Estimate, compare and order lengths Exploration of patterns within number - Explore numbers and strategies - Recognise and extend patterns - Apply number, shape and measures knowledge - Count forwards and backwards

--	--	--

Year 1 <u>Autumn Term</u> Number and Place Value (within 10) Addition and Subtraction (within 10) Geometry (Shape) <u>Spring Term</u> Number and Place Value (within 20) Addition and Subtraction (within 20) Number and Place Value (within 50) Measurement (Length and Height) Measurement (Mass and Volume) <u>Summer Term</u> Multiplication and Division Fractions Geometry (Position and Direction) Number and Place Value (Numbers to 100) Measurement (Money) Measurement (Time)	Autumn
--	---------------

Number and Place Value (Within 10) Step 1 Sort objects Step 2 Count objects Step 3 Count objects from a larger group Step 4 Represent objects Step 5 Recognise numbers as words Step 6 Count on from any number Step 7 1 more Step 8 Count backwards within 10 Step 9 1 less Step 10 Compare groups by matching Step 11 Fewer, more, same Step 12 Less than, greater than, equal to Step 13 Compare numbers Step 14 Order objects and numbers Step 15 The number line. Addition and Subtraction (within 10) Step 1 Introduce parts and wholes Step 2 Part-whole model Step 3 Write number sentences Step 4 Fact families – addition facts Step 5 Number bonds within 10 Step 6 Systematic number bonds within 10 Step 7 Number bonds to 10 Step 8 Addition – add together	Addition and Subtraction (within 10) Step 9 Addition – add more Step 10 Addition problems Step 11 Find a part Step 12 Subtraction – find a part Step 13 Fact families – the eight facts Step 14 Subtraction – take away/cross out (How many left?) Step 15 Take away (How many left?) Step 16 Subtraction on a number line Step 17 Add or subtract 1 or 2 Geometry (Shape) Step 1 Recognise and name 3-D shapes Step 2 Sort 3-D shapes Step 3 Recognise and name 2-D shapes Step 4 Sort 2-D shapes Step 5 Patterns with 2-D and 3-D shapes
--	--

Spring	
Number and Place Value (Within 20) Step 1 Count within 20 Step 2 Understand 10 Step 3 Understand 11, 12 and 13 Step 4 Understand 14, 15 and 16 Step 5 Understand 17, 18 and 19 Step 6 Understand 20 Step 7 1 more and 1 less Step 8 The number line to 20 Step 9 Use a number line to 20 Step 10 Estimate on a number line to 20 Step 11 Compare numbers to 20 Step 12 Order numbers to 20 Addition and Subtraction (Within 20) Step 1 Add by counting on within 20 Step 2 Add ones using number bonds Step 3 Find and make number bonds to 20	Number and Place Value (Within 50) Step 1 Count from 20 to 50 Step 2 20, 30, 40 and 50 Step 3 Count by making groups of tens Step 4 Groups of tens and ones Step 5 Partition into tens and ones Step 6 The number line to 50 Step 7 Estimate on a number line to 50 Step 8 1 more, 1 less Measurement (Length and Height) Step 1 Compare lengths and heights Step 2 Measure length using objects Step 3 Measure length in centimetres Measurement (Mass and Volume) Step 1 Heavier and lighter Step 2 Measure mass

Step 4 Doubles Step 5 Near doubles Step 6 Subtract ones using number bonds Step 7 Subtraction – counting back Step 8 Subtraction – finding the difference Step 9 Related facts Step 10 Missing number problems	Step 3 Compare mass Step 4 Full and empty Step 5 Compare volume Step 6 Measure capacity Step 7 Compare capacity
--	---

Summer	
Multiplication and Division Step 1 Count in 2s Step 2 Count in 10s Step 3 Count in 5s Step 4 Recognise equal groups Step 5 Add equal groups Step 6 Make arrays Step 7 Make doubles Step 8 Make equal groups – grouping Step 9 Make equal groups – sharing Fractions Step 1 Recognise a half of an object or a shape Step 2 Find a half of an object or a shape Step 3 Recognise a half of a quantity Step 4 Find a half of a quantity Step 5 Recognise a quarter of an object or a shape Step 6 Find a quarter of an object or a shape Step 7 Recognise a quarter of a quantity Step 8 Find a quarter of a quantity Geometry (Position and Direction) Step 1 Describe turns Step 2 Describe position – left and right Step 3 Describe position – forwards and backwards Step 4 Describe position – above and below Step 5 Ordinal numbers	Number and Place Value (Numbers to 100) Step 1 Count from 50 to 100 Step 2 Tens to 100 Step 3 Partition into tens and ones Step 4 The number line to 100 Step 5 1 more, 1 less Step 6 Compare numbers with the same number of tens Step 7 Compare any two numbers Measurement (Money) Step 1 Unitising Step 2 Recognise coins Step 3 Recognise notes Step 4 Count in coins Measurement (Time) Step 1 Before and after Step 2 Days of the week Step 3 Months of the year Step 4 Hours, minutes and seconds Step 5 Tell the time to the hour Step 6 Tell the time to the half hour

Year 2 <u>Autumn Term</u> Place value Addition and subtraction Shape <u>Spring Term</u> Money Multiplication and division Length and height Mass, capacity and temperature <u>Summer Term</u> Fractions Time Statistics Position and direction	
Autumn	
Place Value Step 1 Numbers to 20 Step 2 Count objects to 100 by making 10s Step 3 Recognise tens and ones Step 4 Use a place value chart Step 5 Partition numbers to 100 Step 6 Write numbers to 100 in words Step 7 Flexibly partition numbers to 100 Step 8 Write numbers to 100 in expanded form Step 9 10s on the number line to 100 Step 10 10s and 1s on the number line to 100	Addition and Subtraction (II) Step 11 Subtract from a 10 Step 12 Subtract a 1-digit number from a 2-digit number (across a 10) Step 13 10 more, 10 less Step 14 Add and subtract 10s Step 15 Add two 2-digit numbers (not across a 10) Step 16 Add two 2-digit numbers (across a 10) Step 17 Subtract two 2-digit numbers (not across a 10) Step 18 Subtract two 2-digit numbers (across a 10) Step 19 Mixed addition and subtraction Step 20 Compare the number sentences

Step 11 Estimate numbers on a number line Step 12 Compare objects Step 13 Compare numbers Step 14 Order objects and numbers Step 15 Count in 2s, 5s and 10s Step 16 Count in 3s Addition and Subtraction (I) Step 1 Bonds to 10 Step 2 Fact families - addition and subtraction bonds within 20 Step 3 Related facts Step 4 Bonds to 100 (tens) Step 5 Add and subtract 1s Step 6 Add by making 10 Step 7 Add three 1-digit numbers Step 8 Add to the next 10 Step 9 Add across a 10 Step 10 Subtract across 10	Step 21 Missing number problems Shape Step 1 Recognise 2-D and 3-D shape Step 2 Count sides on 2-D shapes Step 3 Count vertices on 2-D shapes Step 4 Draw 2-D shapes Step 5 Lines of symmetry on shapes Step 6 Use lines of symmetry to complete shapes Step 7 Sort 2-D shapes Step 8 Count faces on 3-D shapes Step 9 Count edges on 3-D shapes Step 10 Count vertices on 3-D shapes Step 11 Sort 3-D shapes Step 12 Make patterns with 2-D and 3-D shapes
---	--

Spring	
Money Step 1 Count money – pence Step 2 Count money – pounds (notes and coins) Step 3 Count money – pounds and pence Step 4 Choose notes and coins Step 5 Make the same amount Step 6 Compare amounts of money Step 7 Calculate with money Step 8 Make a pound Step 9 Find change Step 10 Two-step problems Multiplication and Division Step 1 Recognise equal groups Step 2 Make equal groups Step 3 Add equal groups Step 4 Introduce the multiplication symbol Step 5 Multiplication sentences Step 6 Use arrays Step 7 Make equal groups – grouping Step 8 Make equal groups – sharing Step 9 The 2 times-table Step 10 Divide by 2 Step 11 Doubling and halving Step 12 Odd and even numbers	Measurement: Length and Height Step 1 Measure in centimetres Step 2 Measure in metres Step 3 Compare lengths and heights Step 4 Order lengths and heights Step 5 Four operations with lengths and heights Measurement: Mass, Capacity and Temperature Step 1 Compare mass Step 2 Measure in grams Step 3 Measure in kilograms Step 4 Four operations with mass Step 5 Compare volume and capacity Step 6 Measure in millilitres Step 7 Measure in litres Step 8 Four operations with volume and capacity Step 9 Temperature

Step 13 The 10 times-table
 Step 14 Divide by 10
 Step 15 The 5 times-table
 Step 16 Divide by 5
 Step 17 The 5 and 10 times-tables

Summer

Fractions

Step 1 Introduction to parts and whole
 Step 2 Equal and unequal parts
 Step 3 Recognise a half
 Step 4 Find a half
 Step 5 Recognise a quarter
 Step 6 Find a quarter
 Step 7 Recognise a third
 Step 8 Find a third
 Step 9 Find the whole
 Step 10 Unit fractions
 Step 11 Non-unit fractions
 Step 12 Recognise the equivalence of a half and two-quarters
 Step 13 Recognise three-quarters
 Step 14 Find three-quarters
 Step 15 Count in fractions up to a whole

Time

Step 1 O'clock and half past
 Step 2 Quarter past and quarter to
 Step 3 Tell the time past the hour
 Step 4 Tell the time to the hour
 Step 5 Tell the time to 5 minutes
 Step 6 Minutes in an hour
 Step 7 Hours in a day

Statistics

Step 1 Make tally charts
 Step 2 Tables
 Step 3 Block diagrams
 Step 4 Draw pictograms (1–1)
 Step 5 Interpret pictograms (1–1)
 Step 6 Draw pictograms (2, 5 and 10)
 Step 7 Interpret pictograms (2, 5 and 10)

Position and Direction

Step 1 Language of position
 Step 2 Describe movement
 Step 3 Describe turns
 Step 4 Describe movement and turns
 Step 5 Shape patterns with turns

Year 3 <u>Autumn Term</u> Place value Addition and subtraction Multiplication and Division <u>Spring Term</u> Multiplication and division (B) Length and Perimeter Fractions A Mass and Capacity <u>Summer Term</u> Fractions A Mass and Capacity Fractions B Money Time	
Autumn	
Place Value Step 1 Represent numbers to 100 Step 2 Partition numbers to 100 Step 3 Number line to 100 Step 4 Hundreds Step 5 Represent numbers to 1,000 Step 6 Partition numbers to 1,000 Step 7 Flexible partitioning of numbers to 1,000 Step 8 Hundreds, tens and ones Step 9 Find 1, 10 or 100 more or less Step 10 Number line to 1,000 Step 11 Estimate on a number line to 1,000 Step 12 Compare numbers to 1,000 Step 13 Order numbers to 1,000 Step 14 Count in 50s	Addition and Subtraction Step 11 Add two numbers (no exchange) Step 12 Subtract two numbers (no exchange) Step 13 Add two numbers (across a 10) Step 14 Add two numbers (across a 100) Step 15 Subtract two numbers (across a 10) Step 16 Subtract two numbers (across a 100) Step 17 Add 2-digit and 3-digit numbers Step 18 Subtract a 2-digit number from a 3-digit number Step 19 Complements to 100 Step 20 Estimate answers Step 21 Inverse operations Step 22 Make decisions Multiplication and Division (A)

Addition and Subtraction Step 1 Apply number bonds within 10 Step 2 Add and subtract 1s Step 3 Add and subtract 10s Step 4 Add and subtract 100s Step 5 Spot the pattern Step 6 Add 1s across a 10 Step 7 Add 10s across a 100 Step 8 Subtract 1s across a 10 Step 9 Subtract 10s across a 100 Step 10 Make connections	Step 1 Multiplication – equal groups Step 2 Use arrays Step 3 Multiples of 2 Step 4 Multiples of 5 and 10 Step 5 Sharing and grouping Step 6 Multiply by 3 Step 7 Divide by 3 Step 8 The 3 times-table Step 9 Multiply by 4 Step 10 Divide by 4 Step 11 The 4 times-table Step 12 Multiply by 8 Step 13 Divide by 8 Step 14 The 8 times-table Step 15 The 2, 4 and 8 times-tables
--	---

Spring	
Multiplication and Division (B) Step 1 Multiples of 10 Step 2 Related calculations Step 3 Reasoning about multiplication Step 4 Multiply a 2-digit number by a 1-digit number – no exchange Step 5 Multiply a 2-digit number by a 1-digit number – with exchange Step 6 Link multiplication and division Step 7 Divide a 2-digit number by a 1-digit number – no exchange Step 8 Divide a 2-digit number by a 1-digit number – flexible partitioning Step 9 Divide a 2-digit number by a 1-digit number – with remainders Step 10 Scaling Step 11 How many ways? Measurement (Length and Perimeter) Step 1 Measure in metres and centimetres Step 2 Measure in millimetres Step 3 Measure in centimetres and millimetres Step 4 Metres, centimetres and millimetres Step 5 Equivalent lengths (metres and centimetres) Step 6 Equivalent lengths (centimetres and millimetres) Step 7 Compare lengths Step 8 Add lengths Step 9 Subtract lengths Step 10 What is perimeter? Step 11 Measure perimeter Step 12 Calculate perimeter	Fractions (A) Step 1 Understand the denominators of unit fractions Step 2 Compare and order unit fractions Step 3 Understand the numerators of non unit fractions Step 4 Understand the whole Step 5 Compare and order non-unit fractions Step 6 Fractions and scales Step 7 Fractions on a number line Step 8 Count in fractions on a number line Step 9 Equivalent fractions on a number line Step 10 Equivalent fractions as bar models Measurement (Mass and Capacity) Step 1 Use scales Step 2 Measure mass in grams Step 3 Measure mass in kilograms and grams Step 4 Equivalent masses (kilograms and grams) Step 5 Compare mass Step 6 Add and subtract mass Step 7 Measure capacity and volume in millilitres Step 8 Measure capacity and volume in litres and millilitres Step 9 Equivalent capacities and volumes (litres and millilitres) Step 10 Compare capacity and volume Step 11 Add and subtract capacity and volume.

Summer

Fractions (B)

- Step 1 Add fractions
- Step 2 Subtract fractions
- Step 3 Partition the whole
- Step 4 Unit fractions of a set of objects
- Step 5 Non-unit fractions of a set of objects
- Step 6 Reasoning with fractions of an amount

Measurement (Money)

- Step 1 Pounds and pence
- Step 2 Convert pounds and pence
- Step 3 Add money
- Step 4 Subtract money
- Step 5 Find change

Time

- Step 1 Roman numerals to 12
- Step 2 Tell the time to 5 minutes
- Step 3 Tell the time to the minute
- Step 4 Read time on a digital clock
- Step 5 Use am and pm
- Step 6 Years, months and days
- Step 7 Days and hours
- Step 8 Hours and minutes – use start and end times
- Step 9 Hours and minutes - use durations
- Step 10 Minutes and seconds
- Step 11 Units of time
- Step 12 Solve problems with time

Geometry (Shape)

- Step 1 Turns and angles
- Step 2 Right angles
- Step 3 Compare angles
- Step 4 Measure and draw accurately
- Step 5 Horizontal and vertical
- Step 6 Parallel and perpendicular
- Step 7 Recognise and describe 2-D shapes
- Step 8 Draw polygons
- Step 9 Recognise and describe 3-D shapes
- Step 10 Make 3-D shapes

Statistics

- Step 1 Interpret pictograms
- Step 2 Draw pictograms
- Step 3 Interpret bar charts
- Step 4 Draw bar charts
- Step 5 Collect and represent data
- Step 6 Two-way tables

Year 4

Autumn Term

Number Place Value
Addition and Subtraction
Measurement (Area)
Multiplication and Division (A)

Spring Term

Multiplication and Division (B)
Measurement (Length and Perimeter)
Fractions
Decimals (A)

Summer Term

Decimals (B)
Measurement (Money)
Measurement (Time)
Geometry (Shape)
Statistics
Geometry (Position and Direction)

Autumn

Number Place Value

Step 1 Represent numbers to 1,000
Step 2 Partition numbers to 1,000
Step 3 Number line to 1,000
Step 4 Thousands
Step 5 Represent numbers to 10,000
Step 6 Partition numbers to 10,000
Step 7 Flexible partitioning of numbers to 10,000
Step 8 Find 1, 10, 100, 1,000 more or less
Step 9 Number line to 10,000
Step 10 Estimate on a number line to 10,000
Step 11 Compare numbers to 10,000
Step 12 Order numbers to 10,000
Step 13 Roman numerals
Step 14 Round to the nearest 10
Step 15 Round to the nearest 100
Step 16 Round to the nearest 1,000
Step 17 Round to the nearest 10, 100 or 1,000

Measurement (Area)

Step 1 What is area?
Step 2 Count squares
Step 3 Make shapes
Step 4 Compare areas

Multiplication and Division (A)

Step 1 Multiples of 3
Step 2 Multiply and divide by 6
Step 3 6 times-table and division facts
Step 4 Multiply and divide by 9
Step 5 9 times-table and division facts
Step 6 The 3, 6 and 9 times-tables
Step 7 Multiply and divide by 7
Step 8 7 times-table and division facts
Step 9 11 times-table and division facts

Addition and Subtraction

Step 1 Add and subtract 1s, 10s, 100s and 1,000s
Step 2 Add up to two 4-digit numbers – no exchange
Step 3 Add two 4-digit numbers – one exchange
Step 4 Add two 4-digit numbers – more than one exchange
Step 5 Subtract two 4-digit numbers – no exchange
Step 6 Subtract two 4-digit numbers – one exchange
Step 7 Subtract two 4-digit numbers – more than one exchange
Step 8 Efficient subtraction
Step 9 Estimate answers
Step 10 Checking strategies

Spring**Multiplication and Division (B)**

Step 1 Factor pairs
Step 2 Use factor pairs
Step 3 Multiply by 10
Step 4 Multiply by 100
Step 5 Divide by 10
Step 6 Divide by 100
Step 7 Related facts – multiplication and division.
Step 8 Informal written methods for multiplication.
Step 9 Multiply a 2-digit number by a 1-digit number
Step 10 Multiply a 3-digit number by a 1-digit number
Step 11 Divide a 2-digit number by a 1-digit number (1)
Step 12 Divide a 2-digit number by a 1-digit number (2)
Step 13 Divide a 3-digit number by a 1-digit number
Step 14 Correspondence problems
Step 15 Efficient multiplication

Measurement (Length and Perimeter)

Step 1 Measure in kilometres and metres
Step 2 Equivalent lengths (kilometres and metres)
Step 3 Perimeter on a grid
Step 4 Perimeter of a rectangle
Step 5 Perimeter of rectilinear shapes
Step 6 Find missing lengths in rectilinear shapes
Step 7 Calculate perimeter of rectilinear shapes
Step 8 Perimeter of regular polygons
Step 9 Perimeter of polygons

Fractions

Step 1 Understand the whole
Step 2 Count beyond 1
Step 3 Partition a mixed number

Fractions

Step 9 Equivalent fractions on a number line
Step 10 Equivalent fraction families
Step 11 Add two or more fractions
Step 12 Add fractions and mixed numbers
Step 13 Subtract two fractions
Step 14 Subtract from whole amounts
Step 15 Subtract from mixed numbers

Decimals (A)

Step 1 Tenths as fractions
Step 2 Tenths as decimals
Step 3 Tenths on a place value chart
Step 4 Tenths on a number line
Step 5 Divide a 1-digit number by 10
Step 6 Divide a 2-digit number by 10
Step 7 Hundredths as fractions
Step 8 Hundredths as decimals
Step 9 Hundredths on a place value chart
Step 10 Divide a 1- or 2-digit number by 100

Step 4 Number lines with mixed numbers Step 5 Compare and order mixed numbers Step 6 Understand improper fractions Step 7 Convert mixed numbers to improper fractions Step 8 Convert improper fractions to mixed numbers	
--	--

Summer	
Decimals (B) Step 1 Make a whole with tenths Step 2 Make a whole with hundredths Step 3 Partition decimals Step 4 Flexibly partition decimals Step 5 Compare decimals Step 6 Order decimals Step 7 Round to the nearest whole number Step 8 Halves and quarters as decimals Measurement (Money) Step 1 Write money using decimals Step 2 Convert between pounds and pence Step 3 Compare amounts of money Step 4 Estimate with money Step 5 Calculate with money Step 6 Solve problems with money Measurement (Time) Step 1 Years, months, weeks and days Step 2 Hours, minutes and seconds Step 3 Convert between analogue and digital times Step 4 Convert to the 24-hour clock Step 5 Convert from the 24-hour clock	Geometry (Shape) Step 1 Understand angles as turns Step 2 Identify angles Step 3 Compare and order angles Step 4 Triangles Step 5 Quadrilaterals Step 6 Polygons Step 7 Lines of symmetry Step 8 Complete a symmetric figure Statistics Step 1 Interpret charts Step 2 Comparison, sum and difference Step 3 Interpret line graphs Step 4 Draw line graphs Geometry (Position and Direction) Step 1 Describe position using coordinates Step 2 Plot coordinates Step 3 Draw 2-D shapes on a grid Step 4 Translate on a grid Step 5 Describe translation on a grid

Year 5 <u>Autumn Term</u> Place Value and Number Addition and Subtraction Multiplication and Division (A) Fractions (A) <u>Spring Term</u> Multitplication and Division (B) Fractions (B) Decimals and Percentages Measurement (Perimeter and Area) Statistics <u>Summer Term</u> Geometry (Shape) Geometry (Position and Direction) Decimals Negative numbers Measurement (Converting Units) Measurement (Volume)	
Autumn	
Place Value and Number Step 1 Roman numerals to 1,000 Step 2 Numbers to 10,000 Step 3 Numbers to 100,000 Step 4 Numbers to 1,000,000 Step 5 Read and write numbers to 1,000,000 Step 6 Powers of 10 Step 7 10/100/1,000/10,000/100,000 more or less Step 8 Partition numbers to 1,000,000 Step 9 Number line to 1,000,000 Step 10 Compare and order numbers to 100,000 Step 11 Compare and order numbers to 1,000,000 Step 12 Round to the nearest 10, 100 or 1,000 Step 13 Round within 100,000	Multiplication and Division (A) Step 1 Multiples Step 2 Common multiples Step 3 Factors Step 4 Common factors Step 5 Prime numbers Step 6 Square numbers Step 7 Cube numbers Step 8 Multiply by 10, 100 and 1,000 Step 9 Divide by 10, 100 and 1,000 Step 10 Multiples of 10, 100 and 1,000 Fractions (A) Step 1 Find fractions equivalent to a unit fraction

Step 14 Round within 1,000,000 Addition and Subtraction Step 1 Mental strategies Step 2 Add whole numbers with more than four digits Step 3 Subtract whole numbers with more than four digits Step 4 Round to check answers Step 5 Inverse operations (addition and subtraction) Step 6 Multi-step addition and subtraction problems Step 7 Compare calculations Step 8 Find missing numbers	Step 2 Find fractions equivalent to a non-unit fraction Step 3 Recognise equivalent fractions Step 4 Convert improper fractions to mixed numbers Step 5 Convert mixed numbers to improper fractions Step 6 Compare fractions less than 1 Step 7 Order fractions less than 1 Step 8 Compare and order fractions greater than 1 Step 9 Add and subtract fractions with the same denominator Step 10 Add fractions within 1 Step 11 Add fractions with total greater than 1 Step 12 Add to a mixed number Step 13 Add two mixed numbers Step 14 Subtract fractions Step 15 Subtract from a mixed number Step 16 Subtract from a mixed number – breaking the whole Step 17 Subtract two mixed numbers
---	---

Spring	
Multiplication and Division (B) Step 1 Multiply up to a 4-digit number by a 1-digit number Step 2 Multiply a 2-digit number by a 2digit number (area model) Step 3 Multiply a 2-digit number by a 2digit number Step 4 Multiply a 3-digit number by a 2digit number Step 5 Multiply a 4-digit number by a 2digit number Step 6 Solve problems with multiplication Step 7 Short division Step 8 Divide a 4-digit number by a 1-digit number Step 9 Divide with remainders Step 10 Efficient division Step 11 Solve problems with Fractions (B) Step 1 Multiply a unit fraction by an integer Step 2 Multiply a non-unit fraction by an integer Step 3 Multiply a mixed number by an integer Step 4 Calculate a fraction of a quantity Step 5 Fraction of an amount Step 6 Find the whole Step 7 Use fractions as operators Decimals and Percentages (I) Step 1 Decimals up to 2 decimal places Step 2 Equivalent fractions and decimals (tenths) Step 3 Equivalent fractions and decimals (hundredths) Step 4 Equivalent fractions and decimals Step 5 Thousandths as fractions	Decimals and Percentages (II) Step 8 Order and compare decimals (same number of decimal places) Step 9 Order and compare any decimals with up to 3 decimal places Step 10 Round to the nearest whole number Step 11 Round to 1 decimal place Step 12 Understand percentages Step 13 Percentages as fractions Step 14 Percentages as decimals Step 15 Equivalent fractions, decimals and percentages Measurement (Perimeter/Area) Step 1 Perimeter of rectangles Step 2 Perimeter of rectilinear shapes Step 3 Perimeter of polygons Step 4 Area of rectangles Step 5 Area of compound shapes Step 6 Estimate area Statistics Step 1 Draw line graphs Step 2 Read and interpret line graphs Step 3 Read and interpret tables Step 4 Two-way tables Step 5 Read and interpret timetables

Step 6 Thousandths as decimals
Step 7 Thousandths on a place value chart

Summer

Geometry (shape)

Step 1 Understand and use degrees
Step 2 Classify angles
Step 3 Estimate angles
Step 4 Measure angles up to 180°
Step 5 Draw lines and angles accurately
Step 6 Calculate angles around a point
Step 7 Calculate angles on a straight line
Step 8 Lengths and angles in shapes
Step 9 Regular and irregular polygons
Step 10 3-D shapes

Geometry: Position and Direction

Step 1 Read and plot coordinates
Step 2 Problem solving with coordinates
Step 3 Translation
Step 4 Translation with coordinates
Step 5 Lines of symmetry
Step 6 Reflection in horizontal and vertical lines

Decimals

Step 1 Use known facts to add and subtract decimals within 1
Step 2 Complements to 1
Step 3 Add and subtract decimals across 1
Step 4 Add decimals with the same number of decimal places
Step 5 Subtract decimals with the same number of decimal places
Step 6 Add decimals with different numbers of decimal places
Step 7 Subtract decimals with different numbers of decimal places
Step 8 Efficient strategies for adding and subtracting decimals
Step 9 Decimal sequences
Step 10 Multiply by 10, 100 and 1,000
Step 11 Divide by 10, 100 and 1,000

Negative Numbers

Step 1 Understand negative numbers
Step 2 Count through zero in 1s
Step 3 Count through zero in multiples
Step 4 Compare and order negative numbers
Step 5 Find the difference

Measurement (Converting units)

Step 1 Kilograms and kilometres
Step 2 Millimetres and millilitres
Step 3 Convert units of length
Step 4 Convert between metric and imperial units
Step 5 Convert units of time
Step 6 Calculate with timetables

Measurement (Volume)

Step 1 Cubic centimetres
Step 2 Compare volume
Step 3 Estimate volume
Step 4 Estimate capacity

Step 12 Multiply and divide decimals – missing values	
---	--

Year 6 <u>Autumn Term</u> Number Place Value Addition, Subtraction, Multiplication and Division Fractions (A) Fractions (B) Converting Units <u>Spring Term</u> Ratio Algebra Decimals Fraction, Decimals and Percentages Measurement (Area, Perimeter, Volume) Statistics <u>Summer Term</u> Geometry (Properties of Shapes) Geometry (Position and Direction) Themed projects, Consolidation and Problem Solving	Autumn
--	----------------------

Number Place Value Step 1 Numbers to 1,000,000 Step 2 Numbers to 10,000,000 Step 3 Read and write numbers to 10,000,000 Step 4 Powers of 10 Step 5 Number line to 10,000,000 Step 6 Compare and order any integers Step 7 Round any integer Step 8 Negative numbers Addition, Subtraction, Multiplication and Division Step 1 Add and subtract integers Step 2 Common factors Step 3 Common multiples Step 4 Rules of divisibility Step 5 Primes to 100 Step 6 Square and cube numbers Step 7 Multiply up to a 4-digit number by a 2-digit number Step 8 Solve problems with multiplication Step 9 Short division Step 10 Division using factors Step 11 Introduction to long division Step 12 Long division with remainders Step 13 Solve problems with division Step 14 Solve multi-step problems Step 15 Order of operations Step 16 Mental calculations and estimation Step 17 Reason from known facts	Fractions (A) Step 1 Equivalent fractions and simplifying Step 2 Equivalent fractions on a number line Step 3 Compare and order (denominator) Step 4 Compare and order (numerator) Step 5 Add and subtract simple fractions Step 6 Add and subtract any two fractions Step 7 Add mixed numbers Step 8 Subtract mixed numbers Step 9 Multi-step problems Fractions (B) Step 1 Multiply fractions by integers Step 2 Multiply fractions by fractions Step 3 Divide a fraction by an integer Step 4 Divide any fraction by an integer Step 5 Mixed questions with fractions Step 6 Fraction of an amount Step 7 Fraction of an amount – find the whole Converting units Step 1 Metric measures Step 2 Convert metric measures Step 3 Calculate with metric measures Step 4 Miles and kilometres Step 5 Imperial measures
---	--

Spring	
Ratio Step 1 Add or multiply? Step 2 Use ratio language Step 3 Introduction to the ratio symbol Step 4 Ratio and fractions Step 5 Scale drawing Step 6 Use scale factors Step 7 Similar shapes Step 8 Ratio problems Step 9 Proportion problems Step 10 Recipes Algebra Step 1 1-step function machines Step 2 2-step function machines	Fraction, Decimals and Percentages Step 1 Decimal and fraction equivalents Step 2 Fractions as division Step 3 Understand percentages Step 4 Fractions to percentages Step 5 Equivalent fractions, decimals and percentages Step 6 Order fractions, decimals and percentages Step 7 Percentage of an amount – one step Step 8 Percentage of an amount – multistep Step 9 Percentages – missing values Measurement (Area, Perimeter, Volume) Step 1 Shapes – same area Step 2 Area and perimeter Step 3 Area of a triangle – counting squares

Step 3 Form expressions Step 4 Substitution Step 5 Formulae Step 6 Form equations Step 7 Solve 1-step equations Step 8 Solve 2-step equations Step 9 Find pairs of values Step 10 Solve problems with two unknowns Decimals Step 1 Place value within 1 Step 2 Place value – integers and decimals Step 3 Round decimals Step 4 Add and subtract decimals Step 5 Multiply by 10, 100 and 1,000 Step 6 Divide by 10, 100 and 1,000 Step 7 Multiply decimals by integers Step 8 Divide decimals by integers Step 9 Multiply and divide decimals in context	Step 4 Area of a right-angled triangle Step 5 Area of any triangle Step 6 Area of a parallelogram Step 7 Volume – counting cubes Step 8 Volume of a cuboid Statistics Step 1 Line graphs Step 2 Dual bar charts Step 3 Read and interpret pie charts Step 4 Pie charts with percentages Step 5 Draw pie charts Step 6 The mean
---	---

Summer	
Geometry (Properties of Shapes) Step 1 Measure and classify angles Step 2 Calculate angles Step 3 Vertically opposite angles Step 4 Angles in a triangle Step 5 Angles in a triangle – special cases Step 6 Angles in a triangle – missing angles Step 7 Angles in a quadrilateral Step 8 Angles in polygons Step 9 Circles Step 10 Draw shapes accurately Step 11 Nets of 3-D shapes Geometry (Position and Direction) Step 1 The first quadrant Step 2 Read and plot points in four quadrants Step 3 Solve problems with coordinates Step 4 Translations Step 5 Reflections	Themed projects, Consolidation and Problem solving