Chisenhale Primary School

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Mathematics Curriculum Progression Document

The National Curriculum

The full Mathematics National Curriculum can be accessed via:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf

Purpose of study

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Aims

The national curriculum for mathematics aims to ensure that all pupils:

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

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.
The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Information and communication technology (ICT)

Calculators should not be used as a substitute for good written and mental arithmetic. They should therefore only be introduced near the end of key stage 2 to support pupils' conceptual understanding and exploration of more complex number problems, if written and mental arithmetic are secure. In both primary and secondary schools, teachers should use their judgement about when ICT tools should be used.

Spoken language

The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

School curriculum

The programmes of study for mathematics are set out year-by-year for key stages 1 and 2. Schools are, however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, schools therefore have the flexibility to introduce content earlier or later than set out in the programme of study. In addition, schools can introduce key stage content during an earlier key stage, if appropriate. All schools are also required to set out their school curriculum for mathematics on a year-by-year basis and make this information available online.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.
Schools are not required by law to teach the example content in [square brackets] or the content indicated as being 'non-statutory'.

Key stage 1 – years 1 and 2

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools].
At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.
By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency.
Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Lower key stage 2 – years 3 and 4

The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.
At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.
By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.
Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

Upper key stage 2 – years 5 and 6

The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.
At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.
By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.
Pupils should read, spell and pronounce mathematical vocabulary correctly.

Curriculum Overview 2023-2024 Mathematics

	Wk	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn Term	1	Number and Place Value: Nursery Rhymes	Baseline	Number: place value (within 10)	Number: place value	Number: place value	Number: place value	Number: place value	Number: place value
	2								
	3								
	4		Numbers: Counting & recognition (1-5)		Number: addition and subtraction	Number: addition and subtraction	Number: addition and subtraction	Number: addition and subtraction	Number: four operations
	5								
	6	Sorting into groups		Number" addition and subtraction (within 10)				Number: multiplication and division	
	7		2D Shape				Measures: area		Number: fractions
	8	Comparing groups							
	9		Money				Number: multiplication and division	Number: fractions	
	10	Addition & subtraction: one more, one less	Addition & Subtraction (1-5)		Geometry: properties of shape	Number: multiplication and division			Number: fractions
	11			Geometry: shape					
	12	Time		Measurement: time			Consolidation		Measures: convert units
Spring Term	1	Addition & subtraction (to 5)	Counting & number recognition (1-10)	Number: place value (within 20)	Measurement: money	Number: multiplication and division	Number: multiplication and division	Number: multiplication and division	Number: ratio
	2								
	3	Number and Place Value: (to 10)	Size, weight and capacity	Number: addition and subtraction (within 20)	Number: multiplication and division	Measurement: length and perimeter	Measures: length and perimeter	Number: fractions	Number: algebra
	4								
	5								Number: decimals
	6	Comparing groups	Addition and subtraction (Securing 1-10)	Number: place value (within 50)			Number: fractions	Number: decimals and percentages	
	7								Number: fractions, decimals and percentages
	8	*Addition to 5 Number bonds to 5: using 5 frames; part-whole model*			Measurement: length and height	Number: fractions			
	9			Measurement: length and height				Measurement: perimeter and area	Measurement: perimeter, area and volume
	10		Shape, space and measures: 3D shape		Measurement: mass, capacity and temperature	Measurement: mass and capacity	Number: decimals		
	11	Spatial awareness and 2-D shapes		Measurement: weight and height				Statistics	Statistics
	12		Time						
Summer Term	1	Geometry: Exploring Patterns	Numbers: Counting &recognition (1-20)	Number: multiplication and division	Statistics	Number: fractions	Number: decimals	Geometry: properties of shape	Geometry: properties of shape
	2								
	3	Addition and Subtraction: Count on and back	Addition and subtraction (1-20)		Number: fractions	Measures: money	Measurement: money		
	4			Number: fractions				Geometry: position and direction	Geometry: position and direction
	5	Numbers to 10 (Counting to 10)	Doubling, halving and sharing						
	6			Geometry: position and direction	Geometry: position and direction	Measurement: time	Measurement: time	Number: decimals	
	7	Doubling, Halving and sharing, Odds and evens		Number: place value (within 100)			Consolidation		
	8				Problem solving	Geometry: properties of shape	Geometry: shape		Themed projects, consolidation and problem solving
	9		Position and distance	Measures: money				Number: negative numbers	
	10	Measurement: Measure		Measurement: time	Measurement: time	Statistics	Statistics	Measurement: converting units	
	11						Geometry: position and direction		
	12			Consolidation		Consolidation		Measurement: volume	

	Nursery											
	Wk.1	Wk.2	Wk.3	Wk.4	Wk.5	Wk.6	Wk.7	Wk.8	Wk.9	Wk.10	Wk.11	Wk.12
Autumn Term	Number and Place Value: Number Rhymes					Addition and Subtraction: Sorting into groups		Number and Place Value: Comparing groups (comparing quantities of identical objects and comparing quantities of non-identical objects)		Addition and Subtraction: Change within 5 (One more and One less)		Measurement: Time
Spring Term	Addition and Subtraction: Numbers to 5		Number and Place Value: Numbers to 10			Number and Place Value: Comparing groups		Addition and Subtraction: Addition to 5 (Combining to groups to find the whole, Number bonds to 5 using 5 frames, Number bonds to 5 using part-whole model			Geometry: Shape and Space (Spatial awareness and 2-D shapes)	
Summer Term	Geometry: Exploring Patterns (Making simple patterns and exploring more complex patterns		Addition and Subtraction: Count on and back (Adding by counting on and taking away by counting back		Number and Place Value: Numbers to 10 (Counting to 10)		Multiplication and Division: Numerical patterns (Doubling, Halving and sharing, Odds and evens			Measurement: Measure (Length, height and distance, Weight and Capacity)		

	Reception											
	Wk.1	Wk.2	Wk.3	Wk.4	Wk.5	Wk.6	Wk.7	Wk.8	Wk.9	Wk.10	Wk.11	Wk.12
Autumn Term	Baseline			Numbers: Counting and recognition (Using numbers 1-5)			Shape, space and measures: 2D shape		Shape, space and measures: money	Numbers: addition and subtraction (Securing numbers 1-5)		
Spring Term	Numbers: Counting and recognition (Using numbers 1-10)			Shape, space and measures: Size, weight and capacity			Numbers: addition and subtraction (Securing numbers 1-10)			Shape, space and measures: 3D shape		Shape, space and measures: Time
Summer Term	Numbers: Counting and recognition (using numbers 1-20)		Numbers: Addition and subtraction (Securing numbers 1-20)		Numbers: Doubling, halving and sharing			Shape, space and measures: Position and distance			Consolidation/ assessments	

	Year One 2022-2023											
	Wk.1	Wk.2	Wk.3	Wk.4	Wk.5	Wk.6	Wk.7	Wk.8	Wk.9	Wk.10	Wk.11	Wk.12
Autumn Term	Number: Place Value (within 10)					Number: Addition and Subtraction (within 10)					Geometry: Shape	Consolidation
Spring Term	Number: Place Value (within 20)			Number: Addition and Subtraction (within 20)			Number: Place Value (within 50) *includes counting in 2s and 5s*		Measurement: Length and Height		Measurement: Weight and Volume	
Summer Term	Number: Multiplication and Division			Number: Fractions		Geometry: Position & Direction	Number: Place Value (within 100)		Measures: Money	Measurement: Time		Consolidation

	Year Two 2022-2023											
	Wk.1	Wk.2	Wk.3	Wk.4	Wk.5	Wk.6	Wk.7	Wk.8	Wk.9	Wk.10	Wk.11	Wk.12
Autumn Term	Number: Place Value				Number: Addition and Subtraction					Geometry: Properties of Shape		
Spring Term	Measurement: money		Number: Multiplication and Division					Measurement: Length & Height		Measurement: Mass, Capacity and Temperature		
Summer Term	Statistics		Number: Fractions			Geometry: Position and Direction		Problem Solving		Measurement: Time		

	Year Three 2022-2023											
	Wk.1	Wk.2	Wk.3	Wk.4	Wk.5	Wk.6	Wk.7	Wk.8	Wk.9	Wk.10	Wk.11	Wk.12
Autumn Term	Number: Place Value			Number: Addition and Subtraction					Number: Multiplication and Division			
Spring Term	Number: Multiplication and Division			Measurement: Length and Perimeter			Number: Fractions			Measurement: Mass and Capacity		
Summer Term	Number: Fractions		Measures: Money		Measurement: Time			Geometry: Properties of shape		Statistics		Consolidation

	Year Four 2022-2023											
	Wk.1	Wk.2	Wk.3	Wk.4	Wk.5	Wk.6	Wk.7	Wk.8	Wk.9	Wk.10	Wk.11	Wk.12
Autumn Term	Number: Place Value				Number: Addition and Subtraction			Measures: Area	Number: Multiplication and Division			Consolidation
Spring Term	Number: Multiplication and Division			Measures: Length & Perimeter	Number: Fractions					Number: Decimals		
Summer Term	Number: Decimals		Measurement: Money		Measurement: Time		Consolidation	Geometry: Shape		Statistics	Geometry: Position and Direction	

	Year Five 2022-2023											
	Wk.1	Wk.2	Wk.3	Wk.4	Wk.5	Wk.6	Wk.7	Wk.8	Wk.9	Wk.10	Wk.11	Wk.12
Autumn Term	Number: Place Value			Number: Addition and Subtraction		Number: Multiplication and Division			Number: Fractions			
Spring Term	Number: Multiplication and Division			Fractions		Number: Decimals and Percentages			Measurement: Perimeter and Area		Statistics	
Summer Term	Geometry: Properties of Shape			Geometry: Position & Direction		Number: Decimals			Number: Negative numbers	Measurement: Converting Units		Measures: Volume

	Year Six 2022-2023											
	Wk.1	Wk.2	Wk.3	Wk.4	Wk.5	Wk.6	Wk.7	Wk.8	Wk.9	Wk.10	Wk.11	Wk.12
Autumn Term	Number: Place Value		Number: Four Operations					Number: Fractions		Number: Fractions		Measures: Convert Units
Spring Term	Number: Ratio		Number: Algebra		Number: Decimals		Number: Fractions, decimals and percentages		Measurement: Perimeter, Area and Volume		Statistics	
Summer Term	Geometry: Property of Shape			Geometry: Position & Direction	Themed projects, consolidation and problem solving							

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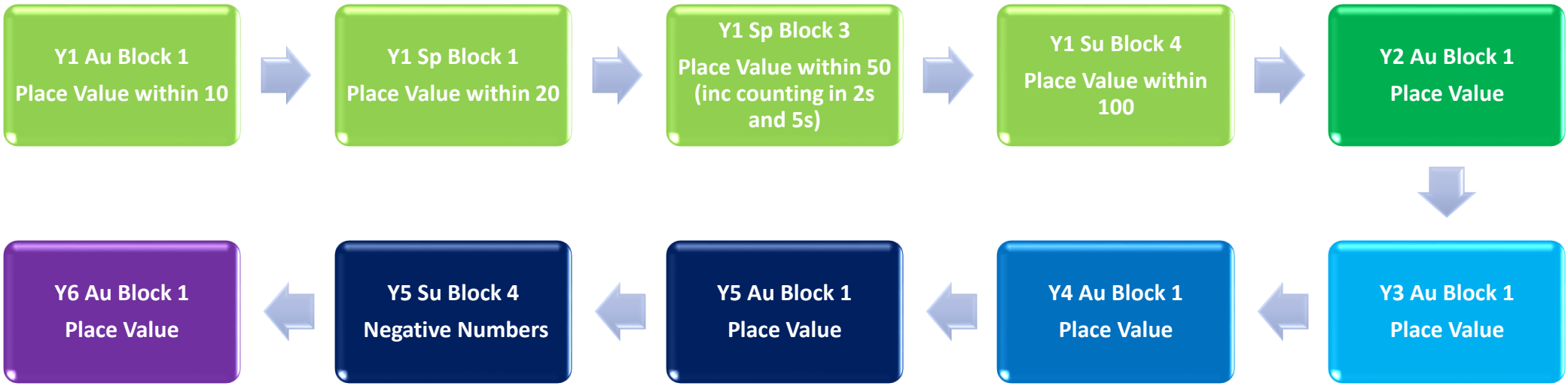
Place Value



Year 1 Autumn Block 1 Place Value within 10		Year 1 Spring 1 Block 1 Place Value within 20		Year 1 Spring 2 Block 3 Place Value within 50	
National Curriculum		**National Curriculum**		**National Curriculum**	
Counting	• Rote counts from 0-30 forwards. • **Begins to** rote count backwards from 30. • Counts on from any given number within 30. (rote count)	Counting	• Rote counts from 0-50 forwards. • **Begins to** rote count from 50 backwards. • Counts on from any given number within 50. (rote count) • **Begins to** count back from any given number within 100. (rote count)	Counting	• Rote counts from 0-50 forwards. • **Begins to** rote count from 50 backwards. • Counts on from any given number within 50. (rote count) • Rote counts in 10s. *e.g. 10, 20, 30*. • Identifies multiples of 10.
Represent	• Identifies numbers up to 10. • Counts accurately a small group of objects (up to 10). • Represents numbers up to 10. • Usually writes numerals correctly from 0-9, sometimes with reversals. • Reads numbers up to 10 as words. • **Begins to** write numbers as words up to 10, perhaps with a few spelling errors.	Represent	• Identifies numbers up to 20. • Counts accurately a small group of objects (up to 20). • Represents numbers up to 20. • Identifies 10s and 1s in a teen number. • Reads numbers up to 20 as words. • Confidently writes numbers as words up to 10. • **Begins to** write numbers as words up to 20.	Represent	• Identifies numbers up to 50. • Counts accurately a group of objects (up to 50). • Represents numbers up to 50. • Identifies 10s and 1s in numbers up to 50. • Reads numbers up to 20 as words. • Confidently writes numbers as words up to 10. • **Begins to** write numbers as words up to 20.
Use PV and Compare	• Orders any given numbers from 0-10 from greatest to smallest or smallest to greatest. • Compares numbers up to 10 using language such as more/less or greater than/less than. • When given a group of up to 10 objects, can say what number is one more and one less.	Use PV and Compare	• Orders any given numbers from 0-20 from greatest to smallest or smallest to greatest. • Compares numbers up to 20 using language such as more/less or greater than/less than and equal to. • When given a group of up to 10 objects, can say what number is one more and one less.	Use PV and Compare	• Orders any given numbers from 0-50 from greatest to smallest or smallest to greatest. • Compares numbers up to 50 using language such as more/less or greater than/less than and equal to. • When given a group of up to 20 objects, can say what number is one more and one less.
Problems & Rounding		Problems & Rounding		Problems & Rounding	
Small Steps		**Small Steps**		**Small Steps**	
• Sort objects • Count objects • Count objects from a larger group • Represent objects • Recognise numbers as words • Count on from any number		• Count forwards and backwards and write numbers to 20 (in numerals and words) • Numbers from 11 to 20 • Tens and ones • Count one more and one less • Compare groups of objects		• Counting to 50 by making 10s activity • Numbers to 50 • Counting forwards and backwards within 50 • Tens and ones • Represent numbers to 50 • One more one less activity	

• 1 more • Count backwards within 10 • 1 less • Compare groups by matching • Fewer, more, same • Less than, greater than, equal to • Compare numbers • Order objects and numbers • The number line	• Compare numbers • Order groups of objects • Order numbers • Mini-assessment	• One more or one less • Compare objects within 50 • Compare numbers within 50 • Order numbers within 50 • Count in 2s activity • Count in 2s • Count in 5s activity • Count in 5s • Mini-assessment

Year 1 Summer Block 4 Place Value within 100		Year 2 Autumn Block 1 Place Value		Year 3 Autumn Block 1 Place Value	
National Curriculum		**National Curriculum**		**National Curriculum**	
Counting	• Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • Count numbers to 100 in numerals. • Count in multiples of twos, fives and tens. • Identifies odd and even numbers up to 20. GD – Counts forwards and backwards within 100 without errors or prompting. Counts across 100.	Counting	• Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward	Counting	• Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
Represent	• Identify and represent numbers using objects and pictorial representations • Read and write numbers to 100 in numerals • Reads and writes numbers from 1 to 100 in numerals. • Confidently reads and writes numbers as words from 0-20. GD – Represents numbers up to 50 using own number line. Uses comparing language confidently.	Represent	• Read and write numbers to at least 100 in numerals and in words. • Identify, represent and estimate numbers using different representations including the number line.	Represent	• Identify, represent and estimate numbers using different representations. • Find 10 or 100 more or less than a given number • Read and write numbers up to 1000 in numerals and in words.
Use PV and Compare	• Given a number up to 20, identify one more and less. GD – Given a number up to 50, identifies one more and less.	Use PV and Compare	• Recognise the place value of each digit in a two digit number (tens, ones) • Compare and order numbers from 0 up to 100; use <, > and = signs	Use PV and Compare	• Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). • Compare and order numbers up to 1000
Problems & Rounding		Problems & Rounding	• Use place value and number facts to solve problems	Problems & Rounding	• Solve number problems and practical problems involving these ideas.
Small Steps		**Small Steps**		**Small Steps**	
• Counting to 100 by making 10s activity • Counting to 100 • Counting forwards and backwards within 100 • Introducing 100 square activity • Partitioning numbers • Comparing numbers (1) • Comparing numbers (2) • Ordering numbers • One more, one less • Mini-assessment		• Numbers to 20 • Count objects to 100 by making 10s • Recognise tens and ones • Use a place value chart • Partition numbers to 100 • Write numbers to 100 in words • Flexibly partition numbers to 100 • Write numbers to 100 in expanded form • 10s on the number line to 100 • 10s and 1s on the number line to 100 • Estimate numbers on a number line • Compare objects • Compare numbers • Order objects and numbers • Count in 2s, 5s and 10s • Count in 3s		• Represent numbers to 100 • Partition numbers to 100 • Number line to 100 • Hundreds • Represent numbers to 1,000 • Partition numbers to 1,000 • Flexible partitioning of numbers to 1,000 • Hundreds, tens and ones • Find 1, 10 or 100 more or less • Number line to 1,000 • Estimate on a number line to 1,000 • Compare numbers to 1,000 • Order numbers to 1,000 • Count in 50s	

Year 4 Autumn Block 1 Place Value		Year 5 Autumn Block 1 Place Value		Year 5 Summer Block 4 Negative numbers	
National Curriculum		**National Curriculum**		**National Curriculum**	
Counting	• Count in multiples of 6, 7, 9. 25 and 1000. • Count backwards through zero to include negative numbers.	Counting	• Count forwards or backwards in steps of powers of 10 for any given number up to 1000000. • count forwards and backwards with positive and negative whole numbers including through zero.	Counting	
Represent	• Identify, represent and estimate numbers using different representations. • Round any number to the nearest 10, 100 or 1000 • Solve number and practical problems that involve all of the above and with increasingly large positive numbers.	Represent	• Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	Represent	•
Use PV and Compare	• Find 1000 more or less than a given number. • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) • Order and compare numbers beyond 1000	Use PV and Compare	• Read, write, order and compare numbers to at least 1000000 and determine the value of each digit.	Use PV and Compare	•
Problems & Rounding	• Round any number to the nearest 10, 100 or 1000 • Solve number and practical problems that involve all of the above and with increasingly large positive numbers. • Count backwards through zero to include negative numbers.	Problems & Rounding	• Interpret negative numbers in context, • Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000 • Solve number problems and practical problems that involve all of the above.	Problems & Rounding	•
Small Steps		**Small Steps**		**Small Steps**	
• Represent numbers to 1,000 • Partition numbers to 1,000 • Number line to 1,000 • Thousands • Represent numbers to 10,000 • Partition numbers to 10,000 • Flexible partitioning of numbers to 10,000 • Find 1, 10, 100, 1,000 more or less		• Roman numerals to 1,000 • Numbers to 10,000 • Numbers to 100,000 • Numbers to 1,000,000 • Read and write numbers to 1,000,000 • Powers of 10 • 10/100/1,000/10,000/100,000 more or less • Partition numbers to 1,000,000		•	

• Number line to 10,000 • Estimate on a number line to 10,000 • Compare numbers to 10,000 • Order numbers to 10,000 • Roman numerals • Round to the nearest 10 • Round to the nearest 100 • Round to the nearest 1,000 • Round to the nearest 10, 100 or 1,000	• Number line to 1,000,000 • Compare and order numbers to 100,000 • Compare and order numbers to 1,000,000 • Round to the nearest 10, 100 or 1,000 • Round within 100,000 • Round within 1,000,000	

Year 6 Autumn Block 1 Place Value	
National Curriculum	
Counting	
Represent	• Read, write, (order and compare) numbers up to 10,000,000 and determine the value of each digit.
Use PV and Compare	• (Read, write), order and compare numbers up to 10,000,000 and determine the value of each digit.
Problems & Rounding	• Round any whole number to a required degree of accuracy. • Use negative numbers in context, and calculate intervals across zero. • Solve number and practical problems that involve all of the above.
Small Steps	
• Numbers to 1,000,000 • Numbers to 10,000,000 • Read and write numbers to 10,000,000 • Powers of 10 • Number line to 10,000,000 • Compare and order any integers • Round any integer • Negative numbers	

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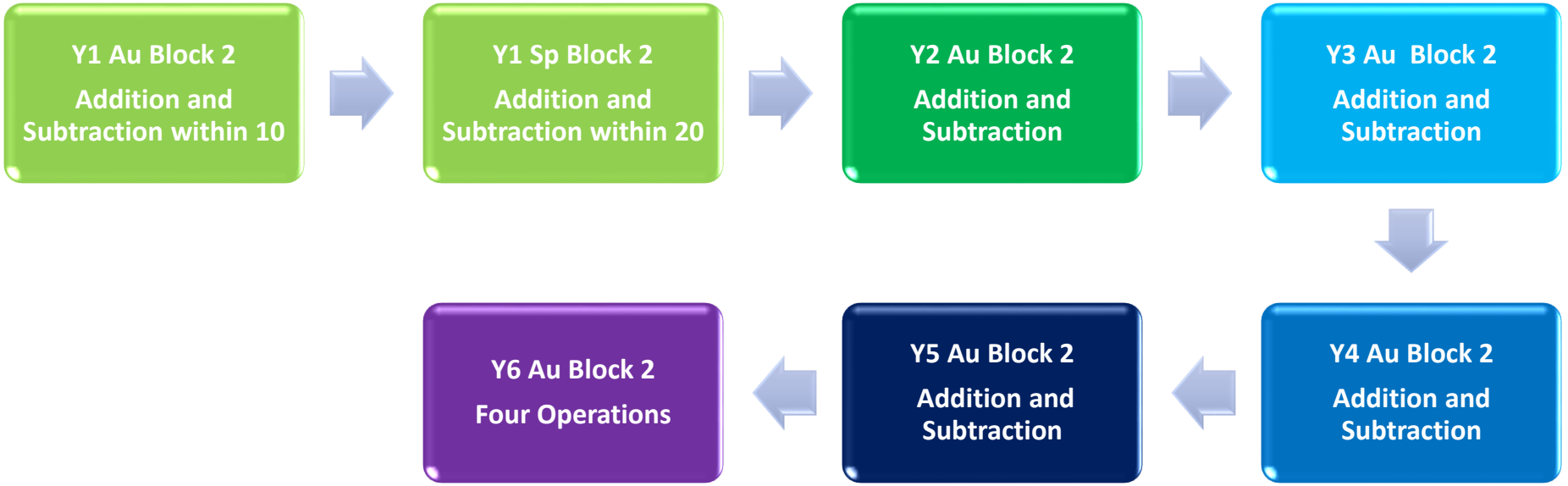
Addition and Subtraction



Year 1 Autumn Block 2 Addition and Subtraction within 10	Year 1 Spring Block 2 Addition and Subtraction within 20	Year 2 Autumn Block 2 Addition and Subtraction
National Curriculum	**National Curriculum**	**National Curriculum**
Recall, Represent, Use • Represent and use number bonds and related subtraction facts within 10. • Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs involving numbers up to 10.	**Recall, Represent, Use** • Represent and use number bonds and related subtraction facts within 20. • Represent and use doubles up to 10. • Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs involving numbers up to 20.	**Recall, Represent, Use** • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.
Calculations • Add and subtract one digit numbers to 10, including zero.	**Calculations** • Add and subtract one-digit and two digit numbers to 20, including zero.	**Calculations** • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers. • Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.

Solve Problems • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.	**Solve Problems** • Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7= □ –9	**Solve Problems** • Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
Small Steps	**Small Steps**	**Small Steps**
• Introduce parts and wholes • Part-whole model • Write number sentences • Fact families – addition facts • Number bonds within 10 • Systematic number bonds within 10 • Number bonds to 10 • Addition – add together • Addition – add more • Addition problems • Find a part • Subtraction – find a part • Fact families – the eight facts • Subtraction – take away/cross out (How many left?) • Take away (How many left?) • Subtraction on a number line • Add or subtract 1 or 2	• Add by counting on within 20 activity • Add by counting on within 20 • Add ones using number bonds activity • Add ones using number bonds • Find & make number bonds to 20 • Add by making 10 activity • Add by making 10 • Subtraction – not crossing 10 • Subtraction – not crossing 10 (counting back) • Subtraction – crossing 10 (counting back) • Subtraction – crossing 10 (1) • Subtraction – crossing 10 (2) • Related Facts • Compare Number Sentences • Mini-assessment	• Bonds to 10 • Fact families - addition and subtraction bonds within 20 • Related facts • Bonds to 100 (tens) • Add and subtract 1s • Add by making 10 • Add three 1-digit numbers • Add to the next 10 • *Add across a 10* • *Subtract across 10* • *Subtract from a 10* • *Subtract a 1-digit number from a 2-digit number (across a 10)* • *10 more, 10 less* • *Add and subtract 10s* • *Add two 2-digit numbers (not across a 10)* • *Add two 2-digit numbers (across a 10)* • *Subtract two 2-digit numbers (not across a 10)* • *Subtract two 2-digit numbers (across a 10)* • *Mixed addition and subtraction* • *Compare number sentences* • *Missing number problems*

Year 3 Autumn Block 2 Addition and Subtraction		**Year 4 Autumn Block 2 Addition and Subtraction**		**Year 5 Autumn Block 2 Addition and Subtraction**	
National Curriculum		**National Curriculum**		**National Curriculum**	
Recall, Represent, Use	• Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three digit number and hundreds.	Recall, Represent, Use		Recall, Represent, Use	• Add and subtract numbers mentally with increasingly large numbers.
Calculations	• Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. • Estimate the answer to a calculation and use inverse operations to check answers.	Calculations	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. • Estimate and use inverse operations to check answers to a calculation.	Calculations	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.
Solve Problems	• Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	Solve Problems	• Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.	Solve Problems	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Small Steps	Small Steps	Small Steps
• Apply number bonds within 10 • Add and subtract 1s • Add and subtract 10s • Add and subtract 100s • Spot the pattern • Add 1s across a 10 • Add 10s across a 100 • Subtract 1s across a10 • Subtract 10s across a 100 • Make connections • Add two numbers (no exchange) • Subtract two numbers (no exchange) • Add two numbers (across a 10) • Add two numbers (across a 100) • Subtract two numbers (across a 10) • Subtract two numbers (across a 100) • Add 2-digit and 3-digit numbers • Subtract a 2-digit number from a 3-digit number • Complements to 100 • Estimate answers • Inverse operations • Make decisions	• Add and subtract 1s, 10s, 100s and 1,000s • Add up to two 4-digit numbers – no exchange • Add two 4-digit numbers – one exchange • Add two 4-digit numbers – more than one exchange • Subtract two 4-digit numbers – no exchange • Subtract two 4-digit numbers – one exchange • Subtract two 4-digit numbers – more than one exchange • Efficient subtraction • Estimate answers • Checking strategies	• Mental strategies • Add whole numbers with more than four digits • Subtract whole numbers with more than four digits • Round to check answers • Inverse operations (addition and subtraction) • Multi-step addition and subtraction problems • Compare calculations • Find missing numbers

Year 6 Autumn
Block 2 Four Operations

National Curriculum

Recall, Represent, Use	• Perform mental calculations, including with mixed operations and large numbers. • Identify common factors, common multiples and prime numbers.
Calculations	• Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication. • Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context. • Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division, interpreting remainders according to the context.
Solve Problems	• Solve problems involving addition, subtraction, multiplication and division. • Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.
Combined Operations	• Use their knowledge of the order of operations to carry out calculations involving the four operations.

Small Steps

- Add and subtract integers
- Common factors
- Common multiples
- Rules of divisibility
- Primes to 100
- Square and cube numbers
- Multiply up to a 4-digit number by a 2-digit number
- Solve problems with multiplication
- Short division
- Division using factors
- Introduction to long division
- Long division with remainders
- Solve problems with division
- Solve multi-step problems
- Order of operations
- Mental calculations and estimation
- Reason from known facts

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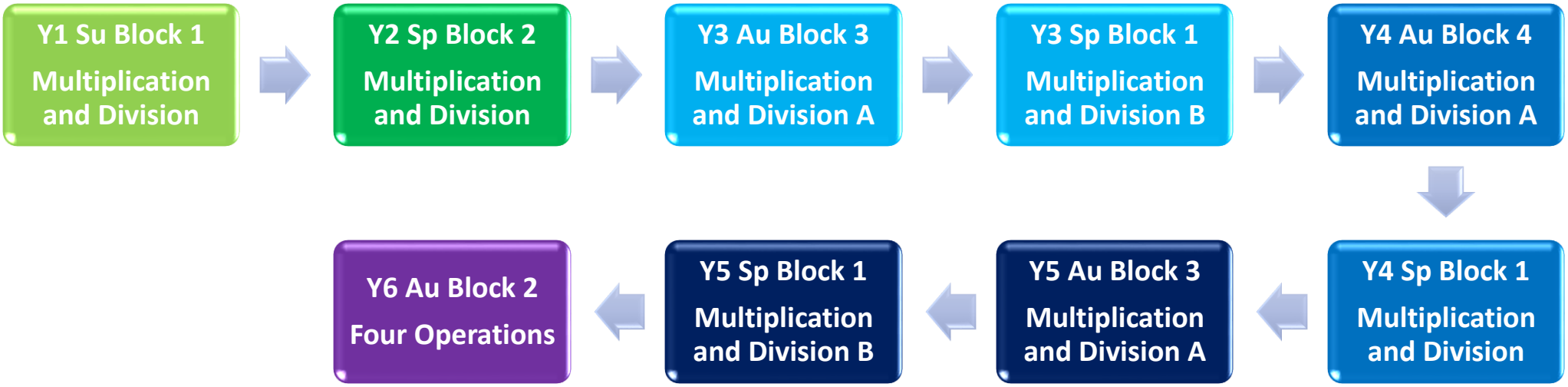
Multiplication and Division



Year 1 Summer Block 1 Multiplication and Division		Year 2 Spring Block 2 Multiplication and Division	
National Curriculum		**National Curriculum**	
Recall, Represent, Use	• Rote count in multiples of twos, fives and tens. • Recognise equal groups. • Make equal groups by grouping and sharing. • Know doubles up to 10 off by heart.	Recall, Represent, Use	• Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers.
Calculations		Calculations	• Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) sign. • Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
Solve Problems	• Solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	Solve Problems	• Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.
Combined Operations		Combined Operations	
Small Steps		**Small Steps**	
• Count in 2s • Counts in 5s • Count in 10s activity • Count in 10s • Make equal groups • Add equal groups • Make arrays activity • Make arrays • Make doubles • Make equal groups – grouping activity • Make equal groups – grouping • Make equal groups – sharing activity • Make equal groups – sharing • Mini-assessment		• Make equal groups activity • Make equal groups • Redistribute from unequal to equal groups activity • Add equal groups • Make arrays	

Year 3 Autumn Block 3 Multiplication and Division A		Year 3 Spring Block 1 Multiplication and Division B		Year 4 Autumn Block 4 Multiplication and Division A	
National Curriculum		**National Curriculum**		**National Curriculum**	
Recall, Represent, Use	• Count from 0 in multiples of 4, 8, 50 and 100 Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	Recall, Represent, Use	• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	Recall, Represent, Use	• Recall and use multiplication and division facts for multiplication tables up to 12 × 12. • Count in multiples of 6, 7, 9. 25 and 1000
Calculations	• Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	Calculations	• Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.	Calculations	• Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
Solve Problems	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives.	Solve Problems	• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives.	Solve Problems	• Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
Combined Operations		Combined Operations		Combined Operations	
Small Steps		**Small Steps**		**Small Steps**	
• Multiplication – equal groups • Use arrays • Multiples of 2 • Multiples of 5 and 10 • Sharing and grouping • Multiply by 3 • Divide by 3 • The 3 times-table • Multiply by 4 • Divide by 4 • The 4 times-table • Multiply by 8 • Divide by 8 • The 8 times-table • The 2, 4 and 8 times-tables		• Comparing statements • Related calculations • Multiply 2-digits by 1-digit - no exchange – activity • Multiply 2-digits by 1-digit – exchange – activity • Multiply 2-digits by 1-digit (2) • Divide 2-digits by 1-digit (1) • Divide 2-digits by 1-digit (2) • Divide 100 into 2, 4, 5, and 10 equal parts – activity • Divide with remainders activity • Divide 2-digits by 1-digit (3) • Scaling • How many ways? • Mini-assessment		• Multiples of 3 • Multiply and divide by 6 • 6 times-table and division facts • Multiply and divide by 9 • 9 times-table and division facts • The 3, 6 and 9 times-tables • Multiply and divide by 7 • 7 times-table and division facts • 11 times-table and division facts • 12 times-table and division facts • Multiply by 1 and 0 • Divide a number by 1 and itself • Multiply three numbers	

Year 4 Spring Block 1 Multiplication and Division	Year 5 Autumn Block 3 Multiplication and Division A	Year 5 Spring Block 1 Multiplication and Division B
National Curriculum	**National Curriculum**	**National Curriculum**
Recall, Represent, Use • Recall and use multiplication and division facts for multiplication tables up to 12 × 12. • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. • Recognise and use factor pairs and commutativity in mental calculations.	**Recall, Represent, Use** • Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers • know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19 • recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	**Recall, Represent, Use** • Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers • know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19 • recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})
Calculations • Multiply two digit and three digit numbers by a one digit number using formal written layout.	**Calculations** • multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • multiply and divide numbers mentally, drawing upon known facts • divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000	**Calculations** • multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • multiply and divide numbers mentally, drawing upon known facts • divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000
Solve Problems • Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	**Solve Problems** • solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	**Solve Problems** • solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
Combined Operations	**Combined Operations**	**Combined Operations** • Use their knowledge of the order of operations to carry out calculations involving the four operations.
Small Steps	**Small Steps**	**Small Steps**
• 11 and 12 times-table • Multiply 3 numbers • Factor pairs • Efficient multiplication • Written methods • Multiply 2-digits by 1 digit • Multiply 3-digits by 1-digit • Divide 2-digits by 1-digit (1) • Divide 2-digits by 1-digit (2) • Divide 3-digits by 1-digit	• Multiples • Common multiples • Factors • Common factors • Prime numbers • Square numbers • Cube numbers • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiples of 10, 100 and 1,000	• Multiply 4-digits by 1-digit • Area model activity • Multiply 2-digits (area model) • Multiply 2-digits by 2-digits • Multiply 3-digits by 2-digits • Multiply 4-digits by 2-digits (basic practice) • Multiply 4-digits by 2-digits • Divide 4-digits by 1-digit • Divide with remainders •

• Correspondence problems		

Year 6 Autumn
Block 2 Four Operations

National Curriculum	
Recall, Represent, Use	• Perform mental calculations, including with mixed operations and large numbers. • Identify common factors, common multiples and prime numbers.
Calculations	• Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication. • Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context. • Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division, interpreting remainders according to the context.
Solve Problems	• Solve problems involving addition, subtraction, multiplication and division. • Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.
Combined Operations	• Use their knowledge of the order of operations to carry out calculations involving the four operations.

Small Steps

- Add and subtract integers
- Common factors
- Common multiples
- Rules of divisibility
- Primes to 100
- Square and cube numbers
- Multiply up to a 4-digit number by a 2-digit number
- Solve problems with multiplication
- Short division
- Division using factors
- Introduction to long division
- Long division with remainders
- Solve problems with division
- Solve multi-step problems
- Order of operations
- Mental calculations and estimation
- Reason from known facts

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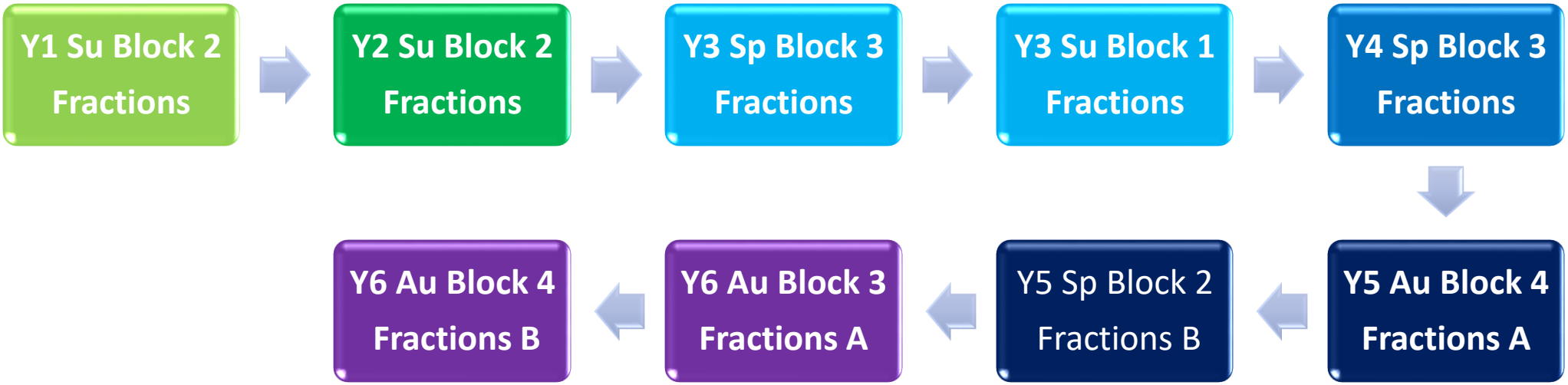
Fractions



Year 1 Summer Block 2 Fractions	Year 2 Summer Block 2 Fractions	Year 3 Spring Block 3 Fractions
National Curriculum	**National Curriculum**	**National Curriculum**
Recognise and Write • Recognise, find and name a half as one of two equal parts of an object, shape or quantity. • Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	**Recognise and Write** • Recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity. • Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	**Recognise and Write** • Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 • Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. • Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
Compare • Compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] • Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half)	**Compare** • choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order lengths, mass, volume/capacity and record the results using >, < and = • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • find different combinations of coins that equal the same amounts of money • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • compare and sequence intervals of time • tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times • know the number of minutes in an hour and the number of hours in a day	**Compare** • use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions >1
Calculations	**Calculations**	**Calculations** • add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ • divide proper fractions by whole numbers [for example, $+\frac{1}{3} \div 2 = \frac{1}{6}$] • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]

		• identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • multiply one-digit numbers with up to 2 decimal places by whole numbers • use written division methods in cases where the answer has up to 2 decimal places
Solve Problems • Compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] • Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half)	**Solve Problems**	**Solve Problems** • Solve problems that involve all of the above • solve problems which require answers to be rounded to specified degrees of accuracy
Small Steps	**Small Steps**	**Small Steps**
• Making a half activity • Making a whole activity • Find half (1) • Find a half of a quantity activity • Find a half (2) • Making a quarter activity • Find a quarter (1) • Find a quarter of a quantity activity • Find a quarter (2) • Mini-assessment • Halving shapes or objects • Halving a quantity • Find a quarter of a shape or object • Find a quarter of a quantity	• Working with parts and wholes activity • Make equal parts • Recognise a half • Find a half • Recognise a quarter • Find a quarter • Recognise a third • Find a third • Unit fractions • Non-unit fractions • Equivalence of a half and two quarters • Find three quarters • Count in fractions • Problem solving with fractions • Mini-assessment	• Working with wholes and parts activity • Recap – equal parts • Recognise a half • Find a half • Recognise a quarter • Find a quarter • Recognise a third • Find a third • Unit fractions • Non-unit fractions • Equivalence of a half and two quarters • Count in fractions

Year 3 Summer
Block 1 Fractions

National Curriculum

Recognise and Write

- Recognise and show, using diagrams, equivalent fractions with small denominators.

Compare

- Compare and order unit fractions, and fractions with the same denominators.

Calculations

- Add and subtract fractions with the same denominator within one whole, for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$

Solve Problems

- Solve problems that involve all of the above.

Small Steps

- Making the whole
- Tenths
- Count in tenths
- Fractions on a number line
- Fractions of a set of objects (1)
- Fractions of a set of objects (2)
- Fractions of a set of objects (3)
- Equivalent fractions (1)
- Equivalent fractions (2)
- Equivalent fractions (3)
- Compare fractions
- Order fractions
- Add fractions
- Subtract fractions
- Mini-assessment

Year 4 Spring Block 3 Fractions	Year 5 Autumn Block 4 Fractions A	Year 5 Spring Block 2 Fractions B
National Curriculum	**National Curriculum**	**National Curriculum**
Recognise and Write • Recognise and show, using diagrams, families of common equivalent fractions. • Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	**Recognise and Write** • Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number, for example $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\ \frac{1}{5}$ • Read and write decimal numbers as fractions, for example 0.71 = $\frac{71}{100}$	**Recognise and Write** • Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number, for example $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\ \frac{1}{5}$ • Read and write decimal numbers as fractions, for example 0.71 = $\frac{71}{100}$
Compare	**Compare** • Compare and order fractions whose denominators are multiples of the same number.	**Compare** • Compare and order fractions whose denominators are multiples of the same number.
Calculations • Add and subtract fractions with the same denominator.	**Calculations** • Add and subtract fractions with the same denominator and denominators that are multiples of the same number. • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	**Calculations** • Add and subtract fractions with the same denominator and denominators that are multiples of the same number. • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
Solve Problems • Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.	**Solve Problems** • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	**Solve Problems** • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.
Small Steps	**Small Steps**	**Small Steps**
• Unit and non-unit fractions • What is a fraction? • Equivalent fractions (1) • Equivalent fractions (2) • Fractions greater than 1 • Count in fractions • Add 2 or more fractions • Subtract 2 fractions • Subtract from whole amounts • Fractions of a set of objects (1) • Fractions of a set of objects (2) • Calculate fractions of a quantity • Problem solving – calculate quantities • Mini-assessment	• Find fractions equivalent to a unit fraction • Find fractions equivalent to a non-unit fraction • Recognise equivalent fractions • Convert improper fractions to mixed numbers • Convert mixed numbers to improper fractions • Compare fractions less than 1 • Order fractions less than 1 • Compare and order fractions greater than 1 • Add and subtract fractions with the same denominator • Add fractions within 1 • Add fractions with total greater than 1 • Add to a mixed number • Add two mixed numbers • Subtract fractions • Subtract from a mixed number • Subtract from a mixed number – breaking the whole • Subtract two mixed numbers	•

Year 6 Autumn Block 3 Fractions A	Year 6 Autumn Block 4 Fractions B
National Curriculum	
Recognise and Write	**Recognise and Write**
Compare • Use common factors to simplify fractions • Use common multiples to express fractions in the same denominations • Compare and order fractions, including fractions >1	**Compare** • Use common factors to simplify fractions • Use common multiples to express fractions in the same denominations • Compare and order fractions, including fractions >1
Calculations • Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions	**Calculations** • Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4}$ x $\frac{1}{2}$ = $\frac{1}{8}$ • Divide proper fractions by whole numbers [for example $\frac{1}{3}$ ÷ 2 = $\frac{1}{6}$]
Solve Problems	**Solve Problems**
Small Steps	
• Equivalent fractions and simplifying • Equivalent fractions on a number line • Compare and order (denominator) • Compare and order (numerator) • Add and subtract simple fractions • Add and subtract any two fractions • Add mixed numbers • Subtract mixed numbers • Multi-step problems	• Multiply fractions by integers • Multiply fractions by fractions • Divide a fraction by an integer • Divide any fraction by an integer • Mixed questions with fractions • Fraction of an amount • Fraction of an amount – find the whole

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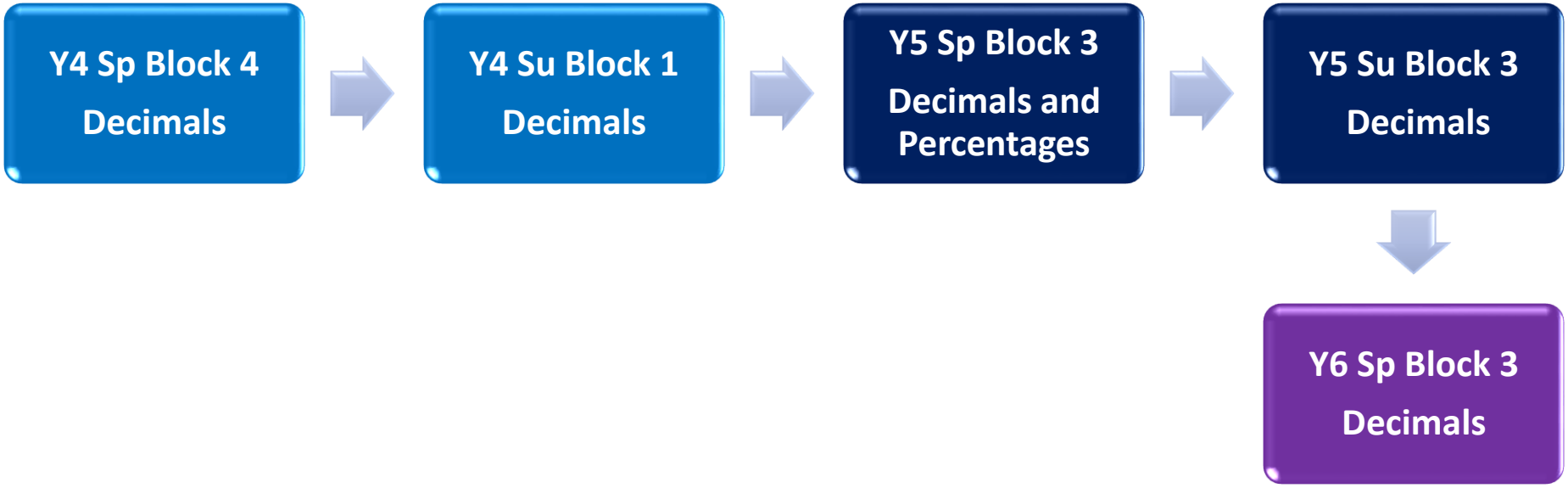
Decimals



Year 4 Spring **Block 4 Decimals**		**Year 4 Summer** **Block 1 Decimals**		**Year 5 Spring** **Block 3 Decimals** and percentages	
National Curriculum		**National Curriculum**		**National Curriculum**	
Recognise and Write	• Recognise and write decimal equivalents of any number of tenths or hundredths.	Recognise and Write	• Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	Recognise and Write	• Read, write, order and compare numbers with up to three decimal places. • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.
Compare		Compare	• Compare numbers with the same number of decimal places up to two decimal places.	Compare	• recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
Round		Round	• Round decimals with one decimal place to the nearest whole number.	Round	• Round decimals with two decimal places to the nearest whole number and to one decimal place.
Calculations and Problems	• Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths • Convert between different units of measure [for example, kilometre to metre] • Solve simple measure and money problems involving fractions and decimals to two decimal places	Calculations and Problems	• Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Calculations and Problems	• Solve problems involving number up to three decimal places. • Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.
Small Steps		**Small Steps**		**Small Steps**	
• Tenths and hundredths activity • Recognise tenths and hundredths • Tenths as decimals • Tenths on a place value grid • Tenths on a number line • Divide 1 digit by 10 • Divide 2 digits by 10 • Hundredths • Hundredths as decimals • Hundredths on a place value grid • Divide 1 or 2 digits by 100 • Mini-assessment		• Bonds to 10 and 100 • Make a whole • Write decimals activity • Write decimals • Compare decimals • Order decimals • Round decimals activity • Round decimals • Halves and quarters • Mini-assessment		• Decimals up to 2 d.p. • Decimals as fractions (1) • Decimals as fractions (2) • Understand thousandths • Thousands as decimals • Rounding decimals • Order and compare decimals • Understand percentages • Percentages as fractions and decimals • Equivalent F.D.P	

Year 5 Summer Block 3 Decimals		Year 6 Spring Block 3 Decimals	
National Curriculum		**National Curriculum**	
Recognise and Write		Recognise and Write	• Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places.
Compare		Compare	
Round		Round	• Solve problems which require answers to be rounded to specified degrees of accuracy.
Calculations and Problems	• Solve problems involving number up to three decimal places. • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	Calculations and Problems	• Multiply one-digit numbers with up to 2 decimal places by whole numbers. • Use written division methods in cases where the answer has up to 2 decimal places. • Solve problems which require answers to be rounded to specified degrees of accuracy.
Small Steps		**Small Steps**	
• Adding decimals within 1 • Subtracting decimals within 1 • Complements to 1 • Adding decimals – crossing the whole • Adding decimals with the same number of decimal places • Subtracting decimals with the same number of decimal places • Adding and subtracting decimals with the same number of decimal places problem solving • Adding decimals with a different number of decimal places • Subtracting decimals with a different number of decimal places • Adding and subtracting decimals with a different number of decimal places problem solving • Adding and subtracting wholes and decimals • Decimal sequences • Multiplying decimals by 10, 100 and 1,000 • Dividing decimals by 10, 100 and 1,000 • Mini-assessment		• Decimals up to 2 d.p • Understanding thousandths • Three decimal places • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiply decimals by integers • Divide decimals by integers • Division to solve problems • Decimals as fractions • Fractions to decimals (1) • Fractions to decimals (2) • Mini-assessment	

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Percentages

Y5 Sp Block 3

Decimals and Percentages

Y6 Sp Block 4

Percentages

Year 5 Spring Block 3 Decimals and Percentages	Year 6 Spring Block 4 Percentages
National Curriculum	**National Curriculum**
• Read, write, order and compare numbers with up to three decimal places. • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Round decimals with two decimal places to the nearest whole number and to one decimal place. • Solve problems involving number up to three decimal places. • Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', • and write percentages as a fraction with denominator 100, and as a decimal. • Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.	• Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. • Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.
Small Steps	**Small Steps**
• Decimals up to 2 d.p. • Decimals as fractions (1) • Decimals as fractions (2) • Understand thousandths • Thousands as decimals • Rounding decimals • Order and compare decimals • Understand percentages • Percentages as fractions and decimals • Equivalent F.D.P	• Understand percentages • Fractions to percentages • Equivalent FDP • Percentage of an amount (1) • Percentage of an amount (2) • Percentages (missing values) • Mini-assessment • *Percentage increase and decrease* • *Order FDP*

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Ratio

Y6 Sp Block 1
Ratio

Year 6 Spring Block 1 Ratio	
National Curriculum	
Recognise and Write	
Compare	
Calculations and Problems	• Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. • Solve problems involving similar shapes where the scale factor is known or can be found. • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
Small Steps	
• Using ratio language • Ratio and fractions • Introducing the ratio symbol • Calculating ratio activity • Calculating ratio • Using scale factors • Calculating scale factors • Ratio and proportion problems • Ratio and proportion problems (2)	

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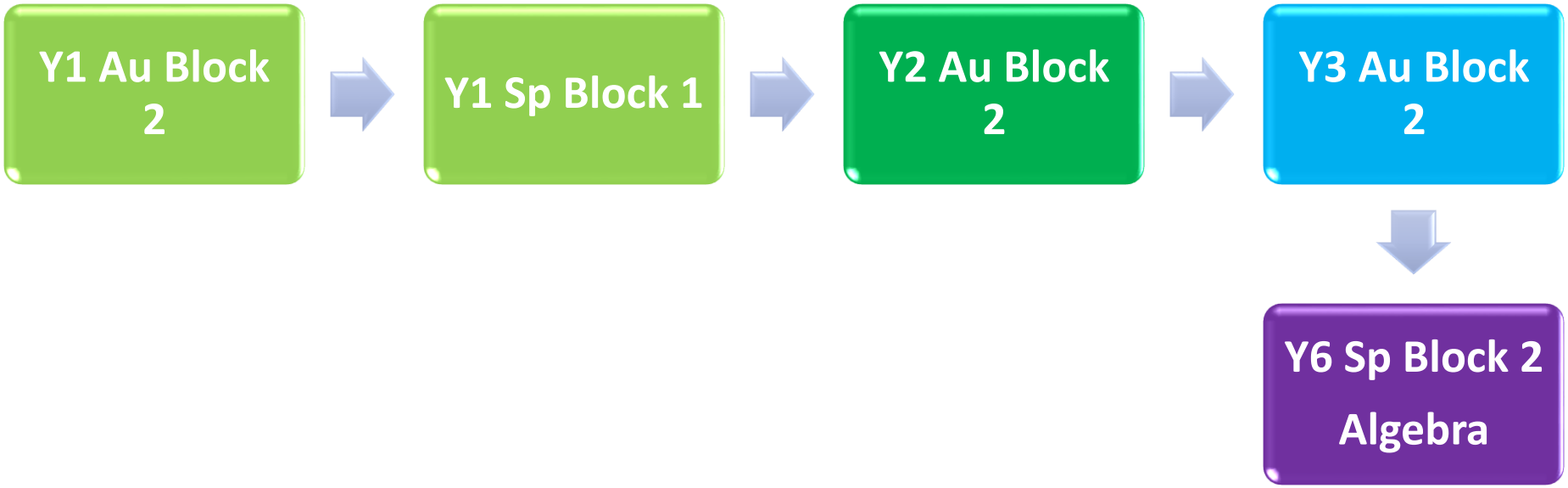
Algebra



Year 1 Autumn and Spring Block 2 Autumn, Block 1 Spring Algebra (addition and subtraction)	Year 2 Autumn Block 2 Algebra (addition and subtraction)	Year 3 Autumn Block 2 Algebra (four operations)
National Curriculum	**National Curriculum**	**National Curriculum**
• Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? − 9	• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • ?????? show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot • ?????? recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems •	• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects
Small Steps	**Small Steps**	**Small Steps**
• Compare addition and subtraction statements a + b > c • Compare addition and subtraction statements a + b = c + d • Related facts • Compare number sentences	• Related facts • Compare number sentences •	• Comparing statements • Related calculations • Scaling • How many ways

Year 4	Year 5	Year 6 Spring Block 2 Spring Algebra
National Curriculum	**National Curriculum**	**National Curriculum**
• solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why • recall multiplication and division facts for multiplication tables up to 12 × 12 • solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects • convert between different units of measure [for example, kilometre to metre; hour to minute]	• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates • convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] • measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm^2) and square metres (m^2), and estimate the area of irregular shapes • solve problems involving converting between units of time	• use their knowledge of the order of operations to carry out calculations involving the 4 operations • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division • solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts • solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison • solve problems involving similar shapes where the scale factor is known or can be found use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with 2 unknowns • enumerate possibilities of combinations of 2 variables • solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places • convert between miles and kilometres • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms and triangles
Links to:	**Links to:**	**Small Steps**
• Missing lengths in area and perimeter • Missing numbers in multiplication and division • Missing numbers in addition and subtraction • Scaling (converting units of measurement)	• Missing lengths in area and perimeter • Missing numbers in multiplication and division • Missing numbers in addition and subtraction • Scaling (converting units of measurement) • Finding the price of one	• Find a rule one step • Find a rule – two step • Forming expressions • Substitution • Formulae • Solve simple one-step equations • Solve two-step equations • Find pairs of values (1) • Find pairs of values (2)

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Measurement: Length, Height & Perimeter

Y1 Sp Block 4
Measurement: Length and Height

→

Y2 Sp Block 3
Measurement: Length and Height

→

Y3 Sp Block 2
Measurement: Length and Perimeter

→

Y4 Sp Block 2
Measurement: Length and Perimeter

Year 1 Spring Block 4 Measurement: Length and Height	Year 2 Spring Block 3 Measurement: Length and Height	Year 3 Spring Block 2 Measurement: Length and perimeter
National Curriculum	**National Curriculum**	**National Curriculum**
• Measurement: Length and Height • Compare lengths and heights using vocabulary such as tall, short, long, taller, shorter, longer, tallest, shortest, longest. • Measure and record lengths and heights using non-standard units (cubes, etc). • Measure and begin to record lengths and heights using standard units (cm). • Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half)	• Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • Compare and order lengths, mass, volume/capacity and record the results using >, < and =	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). • Measure the perimeter of simple 2D shapes.
Small Steps	**Small Steps**	**Small Steps**
• Compare lengths activity • Compare heights activity • Compare lengths & heights • Measuring lengths (non-standard units) activity • Measure length (1) • Introduce the ruler activity • Measure length (2) • Adding lengths problems • Subtracting lengths problems • Mini-assessment	• Compare lengths and heights • Measure length (1) • Measure length (2) • Measure length (cm) • Measure length (m) • Compare lengths • Order lengths • Four operations with lengths • Problem solving with lengths • Mini-assessment	• Measure length • Measure length (m) • Equivalent lengths – m & cm • Equivalent lengths – mm & cm • Compare lengths • Compare lengths • Add lengths • Subtract lengths • What is perimeter? Activity • Measure perimeter • Calculate perimeter • Calculate perimeter • Mini-assessment

Year 4 Spring Block 2 Measurement: Length and Perimeter
National Curriculum
• Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • Convert between different units of measure [for example, kilometre to metre]
Small Steps
• Equivalent lengths – m and cm • Equivalent lengths – mm and cm • Kilometres • Add lengths • Subtract lengths • Measure perimeter • Perimeter on a grid • Perimeter of a rectangle

- Perimeter of rectilinear shapes
- Mini-assessment

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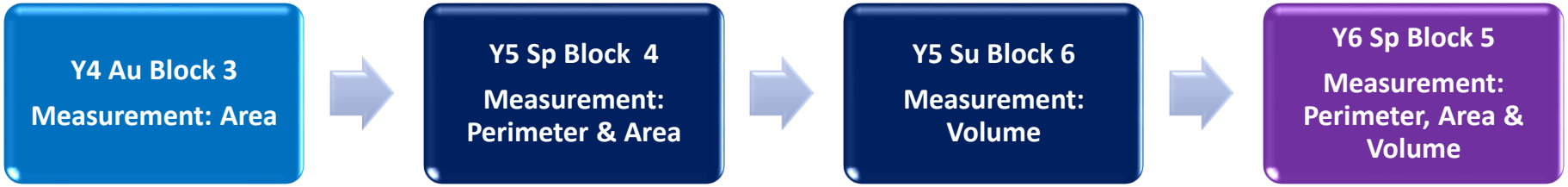
Measurement: Perimeter, Area & Volume



Year 4 Autumn Block 3 Measurement: Area	Year 5 Autumn Block 4 Measurement: Perimeter and Area	Year 5 Summer Block 6 Measurement: Volume
National Curriculum	**National Curriculum**	**National Curriculum**
• Find the area of rectilinear shapes by counting squares.		• Estimate volume [for example using 1cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water] • Use all four operations to solve problems involving measure.
Small Steps	**Small Steps**	**Small Steps**
• What is area? • Counting squares • Make shapes • Compare areas	• Measure perimeter • Perimeter on a grid • Perimeter of rectangles • Perimeter of rectilinear shapes • Calculate perimeter • Counting squares • Area of rectangles • Area of compound shapes • Area of irregular shapes • Mini-assessment	• What is volume? • Compare volume • Estimate volume • Estimate capacity • Mini-assessment

Year 6 Spring
Block 5 Measurement: Perimeter, Area and Volume

National Curriculum

- Recognise that shapes with the same areas can have different perimeters and vice versa.
- Recognise when it is possible to use formulae for area and volume of shapes.
- Calculate the area of parallelograms and triangles.
- Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm3, m3 and extending to other units (mm3, km3)

Small Steps

- Shapes – same area
- Area and perimeter
- Area of a triangle (1)
- Area of a triangle (2)
- Area of a triangle (3)
- Area of a parallelogram
- What is volume?
- Volume – counting cubes
- Volume of a cuboid
- Mini-assessment

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Measurement: Converting Units

Y5 Su Block 5

Measurement: Converting Units

Y6 Au Block 5

Measurement: Converting Units

Year 5 Summer Block 5 Measurement: Converting Units	Year 6 Summer Block 4 Measurement: Converting Units
National Curriculum	**National Curriculum**
• Convert between different units of metric measure (for example kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre • understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • solve problems involving converting between units of time • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	• Convert between different units of metric measure (for example kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre • Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
Small Steps	**Small Steps**
• Kilometres • Kilograms and kilometres • Milligrams and millilitres • Metric units activity • Metric units • Imperial units activity • Imperial units • Converting units of time • Timetables • Mini-assessment	• Metric measures • Convert metric measures • Calculate with metric measures • Miles and kilometres • Imperial measures

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Measurement: Weight & Volume

Y1 Sp Block 5
Measurement: Weight & Volume

→

Y2 Sp Block 4
Measurement: Mass, Capacity & Temperature

→

Y3 Sp Block 4
Measurement: Mass & Capacity

Year 1 Spring Block 5 Measurement: Weight and volume	Year 2 Spring Block 4 Measurement: Capacity and Temperature	Year 3 Spring Block 4 Measurement: Mass and Capacity
National Curriculum	**National Curriculum**	**National Curriculum**
• Measurement: Weight and Volume • Measure and begin to record mass and volume using non-standard units (e.g. cubes). • Measure and begin to record mass/weight, capacity and volume using standard units (grams, kg, ml) • Compare, describe and solve practical problems for mass/weight: [for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]	• Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • Compare and order lengths, mass, volume/capacity and record the results using >, < and =	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Small Steps	**Small Steps**	**Small Steps**
• Introduce weight and mass activity • Introduce weight and mass • Measure mass • Compare mass • Weight and mass problems • Introduce capacity and volume activity • Introduce capacity and volume • Measure capacity • Compare capacity • Mini-assessment	• Introduce weight and mass • Measure mass • Compare mass • Measure mass in grams • Measure mass in kilograms • Introduce capacity and volume • Measure capacity • Compare capacity • Millilitres • Litres • Four operations with mass • Four operations with volume • Temperature activity • Temperature • Temperature	• Measure mass activity • Compare mass • Measure mass (1) • Measure mass (2) • Compare mass • Add and subtract mass • Measure capacity activity • Compare volume • Measure capacity (1) • Measure capacity (2) • Compare capacity • Add and subtract capacity • Temperature activity • Temperature • Mini-assessment

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Measurement: Money

Y1 Su Block 5
Measurement: Money

→

Y2 Sp Block 1
Measurement: Money

→

Y3 Su Block 2
Measurement: Money

→

Y4 Su Block 2
Money

Year 1 Summer Block 5 Measurement: Money	Year 2 Spring Block 1 Money	Year 3 Summer Block 2 Measurement: Money
National Curriculum	**National Curriculum**	**National Curriculum**
• Recognise and know the value of different denominations of coins and notes. • Count in coins.	• Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. • Find different combinations of coins that equal the same amounts of money. • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	• Add and subtract amounts of money to give change, using both £ and p in practical contexts.
Small Steps	**Small Steps**	**Small Steps**
• Recognising coins • Recognising notes • Counting in coins activity • Counting in coins • Mini-assessment	• Count money – pence • Count money – pounds (notes and coins) • Count money – notes and coins • Select money • Make the same amount • Compare money • Find the total • Find the difference • Find change • Two-step problems	• Count money (pence) • Count money (pounds) • Pounds and pence • Add money • Subtract money • Give change • Mini-assessment

Year 4 Summer Block 2 Measurement: Money
National Curriculum
• Estimate, compare and calculate different measures, including money in pounds and pence. • Solve simple measure and money problems involving fractions and decimals to two decimal places.
Small Steps
• Pounds and pence • Ordering money • Estimating money • Convert pounds and pence • Add money • Subtract money • Find change • Work with money activity • Four operations • Mini-assessment

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Measurement: Time

Y1 Su Block 6
Measurement: Time

→

Y2 Su Block 4
Measurement: Time

→

Y3 Su Block 3
Measurement: Time

→

Y4 Su Block 3
Measurement: Time

Year 1 Summer Block 6 Measurement: Time	Year 2 Summer Block 4 Measurement: Time	Year 3 Summer Block 3 Measurement: Time
National Curriculum	**National Curriculum**	**National Curriculum**
• Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. • Recognise and use language relating to dates, including days of the week, weeks, months and years. • Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. • Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later] • Measure and begin to record time (hours, minutes, seconds) • Be able to spell the days of the week, mostly accurately. • Be able to spell some of the months of the year.	• Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. • Know the number of minutes in an hour and the number of hours in a day. • Compare and sequence intervals of time.	• Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. • Estimate and read time with increasing accuracy to the nearest minute. • Record and compare time in terms of seconds, minutes and hours. • Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. • Know the number of seconds in a minute and the number of days in each month, year and leap year. • Compare durations of events [for example to calculate the time taken by particular events or tasks].
Small Steps	**Small Steps**	**Small Steps**
• Before and after activity • Before and after • Dates • Time to the hour activity • Time to the hour • Time to the half hour activity • Time to the half hour • Writing time • Comparing time • Mini-assessment	• Telling the time to the hour • Telling the time to half past • O'clock and half past • Quarter past and quarter to • Telling time to 5 minutes • Writing time • Hours and days (Minutes in an hour, hours in a day) • Find durations of time • Compare durations of time • Mini-assessment	• O'clock and half past • Quarter past and quarter to • Months and years • Hours in a day • Telling the time to 5 minutes • Telling the time to the minute • Using am and pm • 24-hour clock activity • 24-hour clock • Finding the duration • Comparing the duration • Start and end times • Measuring time in seconds • Problem solving with time • Mini-assessment

Year 4 Summer
Block 3 Measurement: Time

National Curriculum

- Read, write and convert time between analogue and digital 12- and 24-hour clocks.
- Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Small Steps

- Telling the time to 5 minutes
- Telling the time to the minute
- Using am and pm
- 24 hour clock
- Hours, minutes and seconds
- Years, months, weeks and days
- Analogue to digital activity
- Analogue to digital – 12 hour
- Analogue to digital – 24 hour
- Mini-assessment

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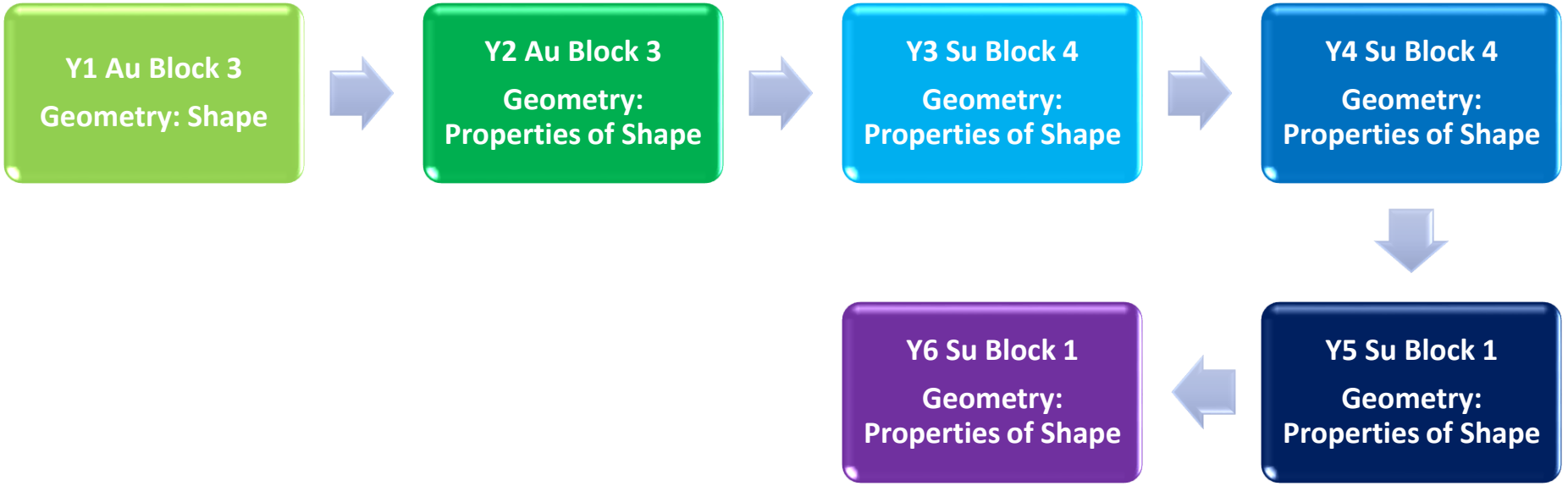
Geometry: Shape & Properties of Shape



Year 1 Autumn Block 3 Geometry: Shape		Year 2 Autumn Block 3 Geometry: Properties of Shape		Year 3 Summer Block 4 Properties of Shape	
National Curriculum		**National Curriculum**		**National Curriculum**	
2-D Shapes	• recognise and name common 2-D and 3-D shapes, including: • 2-D shapes [for example, rectangles (including squares), circles and triangles] • Sort 2-D shapes. • Identify and create patterns with 2-D and 3-D shapes.	2-D Shapes	• identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D and 3-D shapes and everyday objects	2-D Shapes	• draw 2-D shapes
3-D Shapes	• recognise and name common 2-D and 3-D shapes, including: • 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] • Sort 3-D shapes. • Identify and create patterns with 2-D and 3-D shapes.	3-D Shapes	• identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • compare and sort common 2-D and 3-D shapes and everyday objects	3-D Shapes	• make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
Angles and Lines		Angles and Lines		Angles and Lines	• recognise angles as a property of shape or a description of a turn • identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle • identify horizontal and vertical lines and pairs of perpendicular and parallel lines
Small Steps		**Small Steps**		**Small Steps**	
• Recognise and name 3-D shapes • Sort 3-D shapes • Recognise and name 2-D shapes • Sort 2-D shapes • Patterns with 2-D and 3-D shapes		• Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes • Draw 2-D shapes • Lines of symmetry on shapes • Use lines of symmetry to complete shapes • Sort 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Count vertices on 3-D shapes • Sort 3-D shapes • Make patterns with 2-D and 3-D shapes		• Turns and angles • Right angles in shapes • Compare angles • Draw accurately • Horizontal and vertical • Parallel and perpendicular • Recognise and describe 2D shapes • Recognise and describe 3D shapes • Make 3D shapes • Mini-assessment	

Year 4 Summer Block 4 Geometry: Properties of Shape		Year 5 Summer Block 1 Geometry: Properties of Shape		Year 6 Summer Block 1 Properties of Shape	
National Curriculum		**National Curriculum**		**National Curriculum**	
2-D Shapes	• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • identify lines of symmetry in 2-D shapes presented in different orientations	*2-D Shapes*	• distinguish between regular and irregular polygons based on reasoning about equal sides and angles • use the properties of rectangles to deduce related facts and find missing lengths and angles	*2-D Shapes*	• draw 2-D shapes using given dimensions and angles • compare and classify geometric shapes based on their properties and sizes • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
3-D Shapes	•	*3-D Shapes*	• identify 3-D shapes, including cubes and other cuboids, from 2-D representations	*3-D Shapes*	• recognise, describe and build simple 3-D shapes, including making nets
Angles and Lines	• identify acute and obtuse angles and compare and order angles up to 2 right angles by size • identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry	*Angles and Lines*	• know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • draw given angles, and measure them in degrees (°) • identify: ➢ angles at a point and 1 whole turn (total 360°) ➢ angles at a point on a straight line and half a turn (total 180°) ➢ other multiples of 90°	*Angles and Lines*	• find unknown angles in any triangles, quadrilaterals, and regular polygons • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
Small Steps		**Small Steps**		**Small Steps**	
• Turns and angles • Right angles in shapes • Compare angles • Identify angles • Compare and order angles • Recognise and describe 2D shapes • Triangles activity • Triangles • Quadrilaterals activity • Quadrilaterals • Symmetry activity • Horizontal and vertical • Lines of symmetry • Complete a symmetric figure • Mini-assessment		• Identify angles • Compare and order angles • Measuring angles in degrees • Measuring with a protractor (1) • Measuring with a protractor (2) • Drawing lines and angles accurately activity • Drawing lines and angles accurately • Calculating angles on a straight line • Calculating angles around a point • Triangles • Quadrilateral • Calculating lengths and angles in shapes • Regular and irregular polygons • Reasoning about 3D shapes • Mini-assessment		• Measure with a protractor • Draw lines and angles accurately • Introduce angles • Angles on a straight line • Angles around a point • Calculate angles • Vertically opposite angles • Angles in a triangle • Angles in a triangle – special cases • Angles in a triangle – missing angles • Angles in special quadrilaterals • Angles in regular polygons • Draw shapes accurately • Draw nets of 3D shapes • Mini-assessment	

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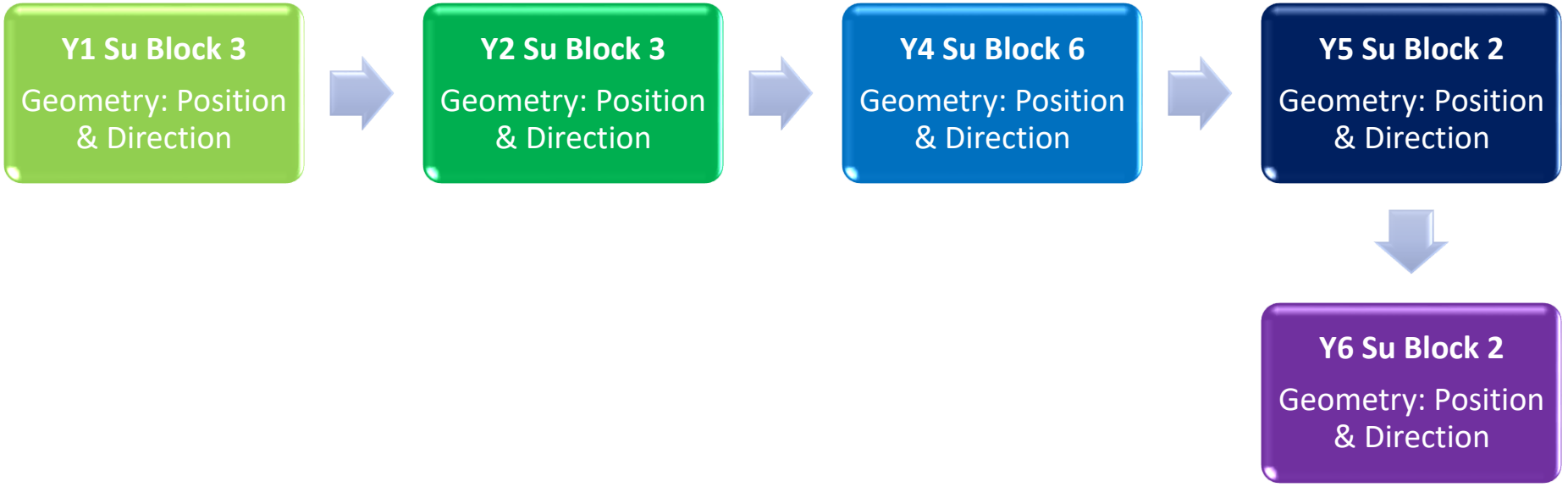
Geometry: Position and Direction



Year 1 Summer Block 3 Geometry: Position and Direction	
National Curriculum	
Position and Direction	• Describe position – left and right. • Describe position – forwards and backwards. • Describe position – above and below. • Describe turns, including whole, half, quarter and three-quarter turns. • Use ordinal numbers (1st, 2nd, 3rd).
Small Steps	
• Describe turns activity • Describe turns • Describe Position (1) • Describe Position (2) • Mini-assessment	

Year 2 Summer Block 3 Geometry: Position and Direction	
National Curriculum	
Position and Direction	• order and arrange combinations of mathematical objects in patterns and sequences • use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)
Small Steps	
• Describe Position (1) • Describe Position (2) • Problem solving with position • Describe movement activity • Describe movement • Describe turns • Describe movement and turns activity • Describe movement and turns • Making patterns with shapes • Mini-assessment	

Year 4 Summer Block 6 Geometry: Position and Direction	
National Curriculum	
Position and Direction	• describe positions on a 2-D grid as coordinates in the first quadrant • describe movements between positions as translations of a given unit to the left/right and up/down • plot specified points and draw sides to complete a given polygon
Small Steps	
• Describe position • Draw on a grid • Move on a grid • Describe a movement on a grid • Mini-assessment	

Year 5 Summer Block 2 Geometry: Position and Direction	
National Curriculum	
Position and Direction	• identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed
Small Steps	
• Describe position • Draw on a grid • Position in the first quadrant • Translation • Translation with coordinates • Lines of symmetry • Complete a symmetric figure • Reflection • Reflection with coordinates • Mini-assessment	

Year 6 Summer Block 2 Geometry: Position and Direction	
National Curriculum	
Position and Direction	• describe positions on the full coordinate grid (all 4 quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Small Steps	
• The first quadrant • Four quadrants • Translations • Reflections • Mini-assessment	

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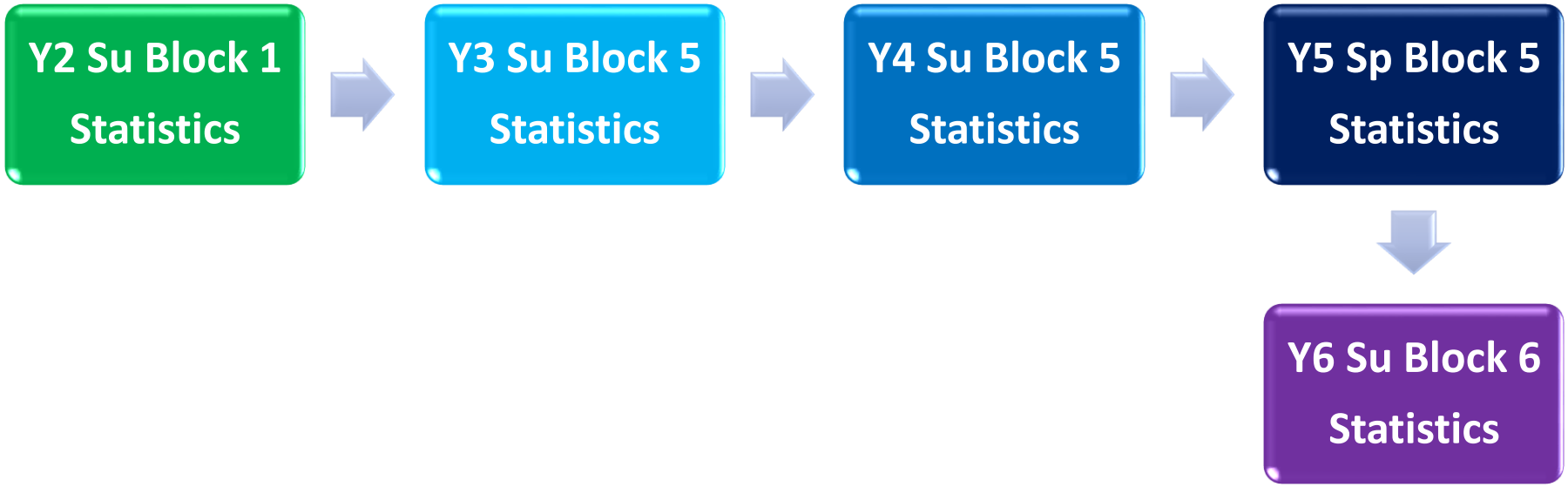
Statistics



Year 2 Summer Black 1 Statistics	Year 3 Summer Black 5 Statistics	Year 4 Summer Black 5 Statistics
National Curriculum	**National Curriculum**	**National Curriculum**
• Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. • Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. • Ask and answer questions about totalling and comparing categorical data.	• Interpret and present data using bar charts, pictograms and tables. • Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
Small Steps	**Small Steps**	**Small Steps**
• Make tally charts activity • Make tally charts • Draw pictograms (1-1) activity • Draw pictograms (1-1) • Interpret pictograms (1-1) • Draw pictograms (2, 5 and 10) activity • Draw pictograms (2, 5 and 10) • Interpret pictograms (2, 5 and 10) • Block diagrams • Mini-assessment	• Make tally charts • Draw Pictograms (1-1) • Interpret pictograms (1-1) • Draw bar charts – activity • Bar Charts • Tables • Mini-assessment	• Interpret charts • Comparison, sum and difference • Introducing line graphs • Line graphs • Mini-assessment

Year 5 Spring Black 5 Statistics	Year 6 Spring Black 6 Statistics
National Curriculum	**National Curriculum**
• Solve comparison, sum and difference problems using information presented in a line graph. • Complete, read and interpret information in tables including timetables.	• Illustrate and name parts of circles, including radius, diameter and circumference and know that the • diameter is twice the radius. • Interpret and construct pie charts and line graphs and use these to solve problems. • Calculate the mean as an average.
Small Steps	**Small Steps**
• Interpret charts • Comparison, sum and difference • Introduce line graphs • Read and interpret line graphs • Draw line graphs • Use line graphs to solve problems • Read and interpret tables • Two-way tables • Timetables • Mini-assessment	• Line graphs • Circles • Read and interpret pie charts • Draw pie charts • The mean