St Augustine of Canterbury R.C Primary School
Maths Curriculum Overview
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Rationale	Our aim at St Augustine's is for all children to enjoy mathematics and have a secure and deep understanding of fundamental mathematical concepts and procedures when they leave us to go to secondary school. Our goal is for all children to think mathematically, enabling them to reason, solve problems and assess risk in a range of contexts. The basic skills of mathematics are essential for the life opportunities of our children. Therefore, we encourage pupils to see the mathematics that surrounds them every day and enjoy developing vital life skills in this subject. At St Augustine's, our Mathematics Master curriculum is being developed to ensure every child can achieve excellence in mathematics. It provides pupils with a deep understanding of the subject through a concrete, pictorial and abstract approach. Our Aims: ➢ To develop a growth mindset and positive attitude towards mathematics. ➢ To become confident and proficient with number, including fluency with mental calculation and look for connections between numbers. ➢ To become problem solvers, who can reason, think logically, work systematically and apply their knowledge of mathematics. ➢ To develop their use of mathematical language. ➢ To become independent learners and to work co-operatively with others. ➢ To appreciate real life contexts to learning in mathematics.
Approach	Our teaching for mastery is underpinned by the NCETM's 5 Big Ideas. ➢ Opportunities for **Mathematical Thinking** allow children to make chains of reasoning connected with the other areas of their mathematics. ➢ A focus on **Representation and Structure** ensures concepts are explored using concrete, pictorial and abstract representations, the children actively look for patterns and generalise whilst problem solving. ➢ **Coherence** is achieved through the planning of small, connected steps to link every question and lesson within a topic. ➢ Teachers use both procedural and conceptual **Variation** within their lessons and there remains an emphasis on **Fluency** with a relentless focus on number and times table facts. Staff use White Rose Maths Schemes of Learning as a starting point to develop a coherent and comprehensive conceptual pathway through mathematics using their small steps of learning. The focus is on the whole class progressing together. Difficult points and potential misconceptions are identified in advance and strategies to address them planned. Key questions are planned, to challenge thinking and develop learning for all pupils. Contexts and representations are carefully chosen to develop reasoning skills and to help pupils link concrete ideas to abstract mathematical concepts. The use of high-quality materials and tasks to support learning and provide access to mathematics is integrated into lessons. These may include White Rose Maths Schemes of Learning and Assessment Materials, NCETM Mastery materials, NRICH, visual images and concrete resources. Opportunities for extra fluency practice (instant recall of key facts, such as number bonds, times tables, division facts, addition and subtraction facts) is provided outside mathematics lessons.
SEND	Our Maths curriculum is designed for everyone to progress at the same rate. Children with special educational needs, working below ARE will still be exposed to the same learning as their peers. Learning will be scaffolded with resources and support. However, these children will work on personal targets under the direction of the class teacher if appropriate. Children working significantly below ARE will complete independent work at an appropriate level based on the area of Mathematics being covered in class at that time.

Values	**Compassionate**	**Hardworking**	**Resilient**	**Inviting**	**Successful**	**Teamwork**

Prior Learning links	Learning is broken down into small, connected steps, building from what pupils already know. Prior learning will be recapped before starting a unit. The Ready to Progress Criteria is used as a starting point for teachers to Baseline summative assessments from the previous year group may be used to identify any gaps in learning.
Assessment	Assessment is an essential part of developing the children's knowledge and understanding in Mathematics. It allows us to analyse the impact teaching has had on children's progress, informs future planning and identifies ways we can further improve children's outcomes. Children are assessed against the small steps of learning for their year group, work produced, observations and discussions. Targets are set with children based on independent work and White Rose termly assessments to ensure they understand how to improve their skills. Interventions are planned to close gaps and challenge children to ensure they reach their full potential. The marking and feedback policy outlines how it is used in school for maximum impact on children's outcomes. EYFS are assessed against Development Matters statements and Early Learning Goals.

EYFS	Reception children follow the White Rose Scheme of Learning. The sessions are delivered to the children using stories, songs, games, practical activities using manipulatives and discussions. These sessions are followed up with targeted adult-led activities in small groups as well as enhancements within the classroom continuous provision. In Maths, personalised planning (objective-led planning for each child) is used based on baseline assessments. Continuous provision is enhanced with activities based on what the children are learning. Children progress at their own pace and move on when needed. Adult-led activities are based on objective-led planning.		
	Autumn	**Spring**	**Summer**
	Units – Match, Sort and Compare, Talk About Measure and Patterns, It's Me 1,2,3, Circles and Triangles, 1,2,3,4,5, Shapes with 4 Sides	**Units – Alive in 5, Mass and Capacity, Growing 6,7,8, Length, Height and Time, Building 9 and 10, Explore 3-D Shapes**	**Units – To 20 and Beyond, How many now?, Manipulate, Compose and Decompose, Sharing and Grouping, Visualise, Build and Map, Make Connections**
	Match Sort and Compare - Week 3-4 **Development Matters – Reception:** <u>Comparison</u> • Count objects, actions and sounds. • Compare numbers.	**Alive in Five – Week 1-2** **Development Matters – 3 and 4 year olds** <u>Comparison</u> • Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. • Experiment with their own symbols and marks as well as numerals. <u>Cardinality</u> • Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). • Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). • • Show 'finger numbers' up to 5. <u>Composition</u> • Solve real world mathematical problems with numbers up to 5. **Development Matters – Reception:** <u>Comparison</u> • Count objects, actions and sounds. • Compare numbers. <u>Cardinality</u> • Subitise • • Link the number symbol (numeral) with its cardinal number value. <u>Composition</u> • Understand the 'one more than/one less than' relationship between consecutive numbers.	**To 20 and Beyond – Week 1-2** **Development Matters – 3 and 4 year olds:** <u>Counting</u> • Recite numbers past 5. • • Say one number for each item in order: 1, 2, 3, 4, 5. **Development Matters – Reception:** <u>Comparison</u> • Count objects, actions and sounds. • Compare numbers. <u>Counting:</u> • Count beyond ten.

		• Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10.	
	Talk About Measure and Patterns - Week 5-6 **Development Matters – 3 and 4 year olds:** <u>Spatial Awareness</u> • Compare quantities using language: 'more than', 'fewer than', • •Understand position through words alone – for example, "The bag is under the table," – with no pointing. • Describe a familiar route. • Discuss routes and locations, using words like 'in front of' and 'behind'. <u>Pattern</u> • Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc. • Extend and create ABAB patterns – stick, leaf, stick, leaf. • Notice and correct an error in a repeating pattern. <u>Measure</u> • Make comparisons between objects relating to size, length, weight and capacity. • Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then…' **Development Matters – Reception:** <u>Pattern</u> • Continue, copy and create repeating patterns.	**Mass and Capacity - Week 3** **Development Matters – 3 and 4 year olds** <u>Measure</u> • Make comparisons between objects relating to size, length, weight and capacity. • Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then…' **Development Matters – Reception:** <u>Measure</u> • Compare length, weight and capacity.	**How many now? – Week 3** **Development Matters – 3 and 4 year olds** <u>Comparison</u> • Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. • Experiment with their own symbols and marks as well as numerals. **Development Matters – Reception:** <u>Composition</u> • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10.

	It's Me 1,2,3 - Week 7-8 **Development Matters – 3 and 4 year olds:** <u>Comparison</u> • Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. • • Experiment with their own symbols and marks as well as numerals. <u>Counting</u> • Recite numbers past 5. • • Say one number for each item in order: 1, 2, 3, 4, 5. <u>Cardinality</u> • Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). • Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). • • Show 'finger numbers' up to 5. **Development Matters – Reception:** <u>Cardinality</u> • Subitise • • Link the number symbol (numeral) with its cardinal number value. <u>Composition</u> • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • • Automatically recall number bonds for numbers 0-5 and some to 10.	**Growing 6,7,8 – Week 4-5** **Development Matters – 3 and 4 year olds:** <u>Spatial Awareness</u> • Compare quantities using language: 'more than', 'fewer than', • •Understand position through words alone – for example, "The bag is under the table," – with no pointing. • Describe a familiar route. • Discuss routes and locations, using words like 'in front of' and 'behind'. <u>Counting</u> • Recite numbers past 5. • • Say one number for each item in order: 1, 2, 3, 4, 5. **Development Matters – Reception:** <u>Cardinality</u> • Subitise • • Link the number symbol (numeral) with its cardinal number value. <u>Composition</u> • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10. <u>Comparison</u> • Count objects, actions and sounds. • Compare numbers.	**Manipulate, Compose and Decompose – Week 4-5** **Development Matters – Reception** <u>Shape</u> • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. <u>Spatial Awareness</u> • Select, rotate and manipulate shapes in order to develop spatial reasoning skills.
	Circles and Triangles - Week 9 **Development Matters – 3 and 4 year olds:** <u>Spatial Awareness</u> • Compare quantities using language: 'more than', 'fewer than', • •Understand position through words alone – for example, "The bag is under the table," – with no pointing. • Describe a familiar route. • Discuss routes and locations, using words like 'in front of' and 'behind'. <u>Shape</u> • Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and	**Length, Height and Time – Week 6-7** **Development Matters – 3 and 4 year olds:** <u>Shape</u> • Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. • Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc. • Combine shapes to make new ones – an arch, a bigger triangle, etc. **Development Matters – Reception** <u>Shape</u> Compose and decompose shapes so that children recognise a	**Sharing and Grouping – Week 6-7** **Development Matters – Reception:** <u>Composition</u> • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10.

	mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. • Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc. • • Combine shapes to make new ones – an arch, a bigger triangle, etc.	shape can have other shapes within it, just as numbers can. <u>Comparison</u> • Count objects, actions and sounds. • Compare numbers.	
	1,2,3,4,5 - Week 10-11 **Development Matters – 3 and 4 year olds:** <u>Comparison</u> • Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. • • Experiment with their own symbols and marks as well as numerals. <u>Counting</u> • Recite numbers past 5. • • Say one number for each item in order: 1, 2, 3, 4, 5. <u>Cardinality</u> • Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). • Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). • • Show 'finger numbers' up to 5. <u>Composition</u> • Solve real world mathematical problems with numbers up to 5. **Development Matters – Reception:** <u>Comparison</u> • Count objects, actions and sounds. • Compare numbers. <u>Cardinality</u> • Subitise • • Link the number symbol (numeral) with its cardinal number value. <u>Composition</u> • Understand the 'one more than/one less than' relationship	**Building 9 and 10 – Week 8-10** **Development Matters – 3 and 4 year olds:** <u>Spatial Awareness</u> • Compare quantities using language: 'more than', 'fewer than', • •Understand position through words alone – for example, "The bag is under the table," – with no pointing. • Describe a familiar route. • Discuss routes and locations, using words like 'in front of' and 'behind'. <u>Counting</u> • Recite numbers past 5. • • Say one number for each item in order: 1, 2, 3, 4, 5. **Development Matters – Reception:** <u>Cardinality</u> • Subitise • • Link the number symbol (numeral) with its cardinal number value. <u>Composition</u> • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10. <u>Comparison</u> • Count objects, actions and sounds. • Compare numbers.	**Visualise, Build and Map – Week 8-10** **Development Matters – 3 and 4 year olds:** <u>Spatial Awareness</u> • Compare quantities using language: 'more than', 'fewer than', • •Understand position through words alone – for example, "The bag is under the table," – with no pointing. • Describe a familiar route. • Discuss routes and locations, using words like 'in front of' and 'behind'. <u>Measure</u> • Make comparisons between objects relating to size, length, weight and capacity. • Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then…' **Development Matters – Reception** <u>Pattern</u> • Continue, copy and create repeating patterns.

	between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10.		
	Shapes with 4 Sides – Week 12 **Development Matters – 3 and 4 year olds:** <u>Shape</u> • Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. • Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc. • Combine shapes to make new ones – an arch, a bigger triangle, etc. **Development Matters – Reception** <u>Shape</u> • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.	**Explore 3-D Shapes – Week 11-12** **Development Matters – 3 and 4 year olds:** <u>Shape</u> • Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. • Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc. • Combine shapes to make new ones – an arch, a bigger triangle, etc. <u>Pattern</u> • Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc. • Extend and create ABAB patterns – stick, leaf, stick, leaf. • Notice and correct an error in a repeating pattern. **Development Matters – Reception** <u>Shape</u> Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. <u>Pattern</u> • Continue, copy and create repeating patterns. <u>Spatial Awareness</u> • Select, rotate and manipulate shapes in order to develop spatial reasoning skills.	**Make Connections – Week 11** **Development Matters – Reception:** <u>Cardinality</u> • Subitise • • Link the number symbol (numeral) with its cardinal number value. <u>Composition</u> • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10. <u>Comparison</u> • Count objects, actions and sounds. • Compare numbers. <u>Counting:</u> • Count beyond ten. <u>Measure</u> • Compare length, weight and capacity.

Year 1	Autumn	Spring	Summer
	Units – Place Value within 10, Addition and Subtraction within 10, Shape	**Units – Place Value within 20, Addition and subtraction within 20, Place Value within 50, Length & Height, Weight and Volume**	**Units – Multiplication and division, Fractions, Position & Direction, Place Value to 100, Money, Time**
	Place Value - Week 1-5 • Count to 10 forwards and backwards beginning with 0 or 1 or from any given number • Count, read and write numerals to 10 in numerals and words • Given a number, identify one more or one less • Identify and represent numbers using objects and pictorial representation including a number line and use the language of equal to, more than, less than, (fewer) most, least	**Place Value within 20 – Week 1-3** • Count to 20 forwards and backwards from any given number • Count, read and write numbers to 20 in numerals and words • Given a number identify one more or one less • Identify and represent numbers using objects and pictorial representation including a number line and use the language of equal to, more than, less than, (fewer) most, least	**Multiplication and division - Week 1-3** • Count in multiples of 2's, 5's and 10's • Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays
	Addition and subtraction - Week 6-10 • Represent and use number bonds and related subtraction facts within 10 • Read, write and interpret mathematical statements involving addition, subtraction and equal signs • Add and subtract one-digit numbers to 10 including 0 • Solve one step problems that involve addition and subtraction using concrete objects and pictorial representation and missing number problems	**Addition and subtraction- Week 4-6** • Represent and use number bonds and related subtraction facts within 20. • Read, write and interpret mathematical statements involving addition, subtraction and equal signs • Add and subtract one-digit numbers to 20 including 0 • Solve one step problems that involve addition and subtraction using concrete objects and pictorial 7=? -9	**Fractions - Week 4-5** • 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 • Compare, describe and solve practical problems for lengths and heights, e.g. long/short, longer/shorter, tall/short, double/half • Compare, describe and solve practical problems for mass and weights, e.g. heavy/light, heavier than/lighter than, Capacity and volume e.g. full/empty, more than, less than, half, half full, quarter

	Geometry: Shape – Week 11 • Recognise and name common 2-D shapes e.g. square, circle and triangles • Recognise and name common 3-D shapes e.g. Cuboids, cubes, pyramids and spheres	**Place Value within 50 - Week 7-8** • Count to 50 forwards and backwards beginning with 0 or 1 or from any given number • Count, read and write numerals to 50 in numerals and words • Given a number, identify one more or one less • Identify and represent numbers using objects and pictorial representation including a number line and use the language of equal to, more than, less than, (fewer) most, least • Count in multiples of 2's, 5's and 10's	**Geometry: Position and direction- Week 6** • Describe position, direction and movement including whole, half, quarter and three-quarter turns
		Measurement: Length and Height - Week 9-10 • Measure and begin to record lengths and heights • Compare, describe and solve practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half	**Place Value to 100 – Week 7-8** • Count to 100 forwards and backwards beginning with 0 or 1 or from any given number • Count, read and write numerals to 100 in numerals and words • Given a number, identify one more or one less Identify and represent numbers using objects and pictorial representation including a number line and use the language of equal to, more than, less than, (fewer) most, least
		Measurement: Weight and Volume – Week 11-12 • Measure and begin to record mass/weight, capacity and volume • Compare, describe and solve practical problems for mass/weight e.g. heavy/light, heavier than/lighter than, capacity and volume e.g. full/empty, more than/less than, half, half full, quarter	**Measurement: Money - Week 9** • Recognise and know the value of different denominations of coins and notes
			Measurement: Time Week 10-11 • Sequence events in chronological order using language eg before, 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 hands on a clock face to show these times • Compare, describe and solve practical problems for time e.g. quicker, slower, earlier, later Measure and begin to record time e.g. hours, minutes seconds

Year 2	Autumn	Spring	Summer
	Units – Place Value, Addition & subtraction, Shape	**Units – Money, Multiplication & Division, Length & Height, Mass, Capacity & Temperature**	**Units – Fractions, Time, Statistics, Position & Direction**
	Place Value – Week 1-3 • Read and write numbers to at least 100 in numerals and words. • Recognise the place value of each digit in a 2-digit number (tens & ones) • Identify, represent and estimate numbers using different representations including the number line. • Compare and order numbers from 0 – 100; use < > and = signs. • Use place value and number facts to solve problems • Count in steps of 2,3, 5 and tens from any number forwards and backwards	**Measurement: Money – Week 9-10** • Recognise and use symbols for pounds and pence (£/p) • Combine amounts to make a particular value • Find different combinations of coins that make the same amount of money • Solve simple problems practically, including addition and subtraction and giving change	**Fractions – Week 1-3** • Recognise, find, name and write fractions of a length, shape, set of objects or quantity $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{2}{4}$ and $\frac{3}{4}$ • Write simple fractions for example ½ of 6 = 3 • Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$
	Addition & Subtraction – Week 5-9 • Recall and use addition & subtraction facts to 20 fluently. Derive and use related facts up to 100. • Add & subtract numbers using concrete objects, pictorial representations and mentally, including two digit numbers and ones, two digit numbers and tens, two digit number and two digit number and adding 3 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 with addition and subtraction: using concrete objects and pictorial representations. Include problems involving numbers, quantities and measures. • Recognise and use the inverse relationship between addition and subtraction. Use this to check calculations and solve missing number problems	**Multiplication & Division - Week 3-7** • Recall and use multiplication facts for 2, 5 and 10 times tables including recognising odd and even numbers • Calculate mathematical statements for 2, 5 and 10's using multiplication and division using x, ÷ and = • Solve problems using multiplication and division using, materials, arrays, repeated addition and mental methods. • Show that multiplication of two numbers can be done in any order (commutative) but division cannot. • Recall and use multiplication facts for 2, 5 and 10-times tables including recognising odd and even numbers • Calculate mathematical statements for 2, 5 and 10's using multiplication and division using x, ÷ and = • Solve problems using multiplication and division using, materials, arrays, repeated addition and mental methods. • Show that multiplication of two numbers can be done in any order (commutative) but division cannot.	**Measurement: Time – Week 4-6** • Tell and write the time to five minutes, including quarter past/to the hour. • Draw hands on a clock 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
	Geometry: Properties of shape – Week 10-12 • Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line • Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces. • Identify 2D shapes on the surface of 3D shapes e.g a circle on a cylinder and a triangle on a pyramid. • Compare and sort common 2D and 3D shapes and everyday objects.	**Measurement: Length & Weight – Week 8-9** • Choose and use appropriate standards of units to estimate and measure length/height (m/cm) in any direction; mass (kg/g), temperature (®C), capacity (l/ml). • Use rulers, scales thermometers and measuring vessels to the nearest unit. Compare and order lengths, mass, volume/capacity and record the results using < > and =	**Statistics – Week 7-8** • 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.

		Measurement: Mass, Capacity & Temperature – Week 10-12 • Choose and use appropriate standards of units to estimate and measure length/height (m/cm) in any direction; mass (kg/g), temperature (®C), capacity (l/ml). • Use rulers, scales thermometers and measuring vessels to the nearest unit. • Compare and order lengths, mass, volume/capacity and record the results using < > and =	**Geometry: Position and Direction – Week 1-3** • Use mathematical vocabulary to describe position, direction and movement including in a straight line. • Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) • Order and arrange combinations of mathematical objects in patterns and sequences.

Year 3	Autumn	Spring	Summer
	Units – Place Value, Addition & Subtraction, Multiplication & Division	**Units – Multiplication & Division, Length & Perimeter, Fractions, Mass & Capacity**	**Units – Fractions, Money, Time, Properties of Shape, Statistics**
	Place Value – Week 1-3 • Recognise the place value of each digit in a three-digit number • Identify, represent and estimate using different representations • Find 10 or 100 more or less than a given number • Compare and order numbers up to 1000 • Read and write numbers in numerals and words up to 1000 • Solve number problems and practical problems involving these ideas. • Count from 0 in multiples of 4, 8, 50 and 100.	**Multiplication and Division – Week 1-3** • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. • Write and calculate multiplication and division statements for the tables known including 2 digits times 1-digit numbers using mental and formal written methods • Solve problems, including missing numbers involving multiplication and division. • Solve problems including positive integer scaling and correspondence problems in which *n* objects are connected to *m* objects	**Fractions – Week 1-2** • Recognise and show, using diagrams, equivalent fractions with small denominators • Compare and order unit fractions and fractions with the same denominators • Add and subtract fractions with the same denominator within one whole. • Solve problems that involve all the above
	Addition & Subtraction – Week 4-8 • Add and subtract numbers mentally including: 3 digits and ones, 3 digits and tens, 3 digits and hundreds. • Add and subtract numbers with up to 3 digits using formal written methods of columnar addition and subtraction • Estimate the answer to a calculation and use inverse operations to check answers • Solve problems, including missing numbers, using number facts, place value and more complex addition and subtraction.	**Measurement: Length and Perimeter – Week 3-6** • Measure, compare, add and subtract lengths (m/cm/mm), mass (kg/g) and volume/capacity (l/ml) Measure the perimeter of simple 2D shapes.	**Measurement: Money – Week 3** Add and subtract amounts of money to give change using £ and p in practical contexts.
	Multiplication and Division – Week 9-12 • 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. • Write and calculate multiplication and division statements for the tables known including 2 digits times 1-digit numbers using mental and formal written methods • Solve problems, including missing numbers involving multiplication and division. • Solve problems including positive integer scaling and correspondence problems in which *n* objects are connected to *m* objects	**Fractions – Week 7-9** • 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 and non-unit fractions with small denominators. • Recognise, find and write fractions of a discrete set of objects, unit and non-unit fractions with small denominators. Solve problems that involve all the above.	**Measurement: Time – Week 5-7** • Tell and write the time from an analogue clock • Tell and write the time from an analogue clock with Roman Numerals I to XII • Tell the 12 hour and 24-hour time • 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, am/pm, morning, afternoon, noon and midnight • Know the number of seconds in a minute • Know the number of days in each month • Know the number of days in a year and leap year Compare durations of events (time taken by particular events or tasks)

		Measurement: Mass & Capacity – Week 10-12 • Measure, compare, add and subtract lengths (m/cm/mm), mass (kg/g) and volume/capacity (l/ml)	**Geometry: Properties of Shape – Week 8-9** • 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 make a complete turn • Identify whether angles are greater than or less than a right angle • Identify horizontal and vertical lines. • Identify pairs of perpendicular and parallel lines • Draw 2D shapes and make 3D shapes using modelling material • Recognise 3D shapes in different orientations and describe them
			Statistics – Week 10-11 • Interpret and present data using bar charts, pictograms and tables • Using information presented in scaled bar charts, pictograms and tables, solve one step and two step questions e.g How many more? How many fewer?

Year 4	Autumn	Spring	Summer
	Unit – Place Value, Addition & Subtraction, Area, Multiplication & Division	**Unit – Multiplication & Division, Length & Perimeter, Fractions, Decimals**	**Unit – Decimals, Money, Time, Statistics, Properties of Shape, Statistics, Position & Direction**
	Place Value -Week 1-4 • Count in multiples of 6, 7, 9, 25 and 1000 • Find 1000 more or less than a given number • Recognise the place value of each digit in a 4-digit number • Order and compare numbers beyond 1000 • Identify, represent and estimate numbers using different representations • Round any number to the nearest 10, 100 and 1000 • Count backwards through zero to negative numbers • Solve number and practical problems will all of the above.	**Multiplication & Division – Week 1-3** • Recognise and use factor pairs and commutativity in mental calculations • Multiply 2 digit and 3-digit numbers by a one-digit number using formal written layout • Solve problems involving multiplying and adding including using the distributive law to multiply 2-digit numbers by 1 digit; integer scaling problems and correspondence problems such as *n* objects are connected to *m* objects	**Decimals -Week 1-2** • Compare numbers with the same number of decimal places up to two decimal places. • Round decimals with one decimal place to the nearest whole number. • Recognise and write decimal equivalents to ¼ ½ and ¾ • Understand 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.
	Addition & Subtraction – Week 5-7 • Add and subtract numbers with up to 4 digits using the formal written method of columnar addition and subtraction where appropriate • Estimate and use inverse operations to check answers to a calculation • Solve addition and subtraction two step problems in context, deciding which operations and methods to use and why.	**Measurement: Length & Perimeter – Week 4-5** • Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m • Convert between different units of measure e.g. km to m	**Measurement: Money - Week 3-4** • 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.
	Measurement: Area – Week 8 • Find the area of rectilinear shapes by counting squares	**Fractions – Week 6-9** • 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 100 and dividing tenths by 10 • Add and subtract fractions with the same denominator • 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	**Measurement: Time – Week 5-6** • 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.
	Multiplication & Division – Week 9-11 • Recall and use multiplication and division facts for multiplication tables up to 12 X 12 • Count in multiples of 6, 7, 9, 25 and 1000 • Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1, dividing by 1 • Multiplying together 3 numbers • Solve problems involving multiplying and adding including using the distributive law to multiply 2-digit numbers by 1 digit; integer scaling problems and correspondence problems such as *n* objects are connected to *m* objects	**Decimals – Week 10-12** • Recognise and write decimal equivalents of any number of tenths or hundredths. • 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 • Solve simple measure and money problems involving fractions and decimals to two decimal places. • Convert between different units of measure [for example, kilometre to metre]	**Geometry: Properties of Shape – Week 8-9** • Identify acute and obtuse angles • Compare and order angles up to 2 right angles by size • Compare and classify geometric shapes including quadrilaterals and triangles, based on their properties and size • Identify lines of symmetry in 2D shapes presented in different orientations

			Statistics – Week 10 • 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.
			Geometry: Position & Direction – Week 11-12 • Describe on a 2D grid as coordinates in the first quadrant • Plot specified points and draw sides to complete a given polygon • Describe movements between positions as translations of a given unit to the left/right and up/down.

Year 5	Autumn	Spring	Summer
	Unit – Place Value, Addition & Subtraction, Multiplication & Division, Fractions	**Unit – Multiplication & Division, Fractions, Decimals & Percentages, Perimeter & Area, Statistics**	**Unit – Decimals, Properties of Shape, Position & Direction, Decimals, Negative Numbers, Converting Units, Volume**
	Place value – Week 1-3 • Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit • Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 • Count forwards and backwards with positive and negative whole numbers including through zero • Round any number up to 1,000,000 to the nearest 10, 100,1000, 10,000 and 100,000 • Solve number and practical problems that involve all the above • Read Roman numerals up to 1,000 (M) and recognise years written in Roman numerals	**Multiplication & Division – Week 1-3** • Multiply and divide numbers mentally drawing upon known facts. • Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for 2-digit numbers. • Divide numbers up to 4 digits by a 1- digit number using the formal written method of short division and interpret remainders appropriately for the context. • Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.	**Geometry: Properties of Shapes – Week 1-3** • Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. • Use the properties of rectangles to deduce related facts and find missing lengths and angles. • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • 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 one whole turn (total 360°), angles at a point on a straight line and ½ a turn (total 180°) other multiples of 90°
	Addition & Subtraction – Week 4-5 • Add and subtract numbers mentally with increasingly large numbers • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar) • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • Solve addition and subtraction multi-step problems in contexts, deciding with operations and methods to use and why.	**Fractions – Week 4-5** • Compare and order fractions whose denominators are multiples of the same number. • 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 e.g $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ • Add and subtract fractions with the same denominator and denominators that are multiples of the same number.	**Geometry: Position & Direction – Week 4-5** • 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.
	Multiplication & Division – Week 6-8 • Multiply and divide numbers mentally drawing upon known facts • Multiply and divide whole numbers by 10, 100 and 1000 • Identify multiples and factors • Find all factor pairs of a number and common factors of 2 numbers • Recognise and use square numbers and cube numbers using the notations (*e. g* 3^2 and 4^3) • Solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes • Know and use vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is a prime and recall prime numbers up to 19	**Decimals & Percentages – Week 6-8** • 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 percent symbol (%) and understand that percent relates to 'number of parts per hundred', • Write percentages as a fraction with denominator 100, and as a decimal. • Solve problems which require knowing percentage and decimal equivalents of	**Decimals – Week 6-8** • Recognise and write decimal equivalents of any number of tenths or hundredths. • 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 • Solve simple measure and money problems involving fractions and decimals to two decimal places. • Convert between different units of measure [for example, kilometre to metre]

	Fractions – Week 9-12 • Compare and order fractions whose denominators are multiples of the same number. • 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 e.g $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ • Add and subtract fractions with the same denominator and denominators that are multiples of the same number.	**Measurement: Perimeter & Area – Week 8-10** • Measure and calculate the perimeter of composite rectilinear shapes in cm and m • Calculate and compare the area of rectangles (including squares) using standard units cm2/m2 • Estimate the area of irregular shapes	**Negative Numbers – Week 9** • Interpret negative numbers in context
		Statistics – Week 10-12 • Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information in tables including timetables.	**Measuring: Converting Units – Week 10-11** • Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml] • 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.
			Measurement: Volume – Week 12 • Estimate volume (e.g. using $1 cm^3$ blocks to build cuboids, including cubes) and capacity (e.g. using water) • Use all 4 operations to solve problems involving measure

Year 6	Autumn	Spring	Summer
	Unit – Place Value, Four operations, Fractions, Converting Units	**Unit – Ratio, Algebra, Decimals, Fractions, Decimals & Percentages, Area, Perimeter & Volume, Statistics**	**Unit – Properties of Shape, Position & Direction, Themed Projects**
	Place Value – Week 1-2 • Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit • 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 the above	**Ratio – Week 1-2** • 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.	**Geometry: Properties of Shapes – Week 1-3** • Draw 2-D shapes using given dimensions and angles. • Compare and classify geometric shapes based on their properties and sizes and 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.
	Four Operations – Week 3-7 • Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why • Multiply multi-digit numbers 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. • Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division • Interpret remainders as whole number remainders, fractions or by rounding as appropriate for the context • Perform mental calculations, including with mixed operations and large numbers • Identify common factors, common multiples and prime numbers • Use their knowledge of the order of operations to carry out calculations involving the four operations • Solve problems involving addition, subtraction, multiplication and division • Use estimation to check answers to calculations and determine in context of a problem, an appropriate degree of accuracy	**Algebra - Week 3-4** • Use simple formulae. • Generate and describe linear number sequences. • Express missing number problems algebraically. • Find pairs of numbers that satisfy an equation with two unknowns. • Enumerate possibilities of combinations of two variables.	**Geometry: Position & Direction – Week 4** • Describe positions on the full co-ordinate grid (all 4 quadrants) • Draw and translate simple shapes on the co-ordinate plane and reflect them in the axes
	Fractions – Week 8-11 • Use common factors to simplify fractions • Use common multiples to express fractions in the same denomination • Compare and order fractions, including fractions >1 • Generate and describe linear number sequences (with fractions) • Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions	**Decimals – Week 5-6** • 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. • Multiply 1-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.	**SATS Week** **Problem Solving and Investigations – Week 5 – 11** • Reasoning and problem solving in all aspects of previous learning

	• Multiply simple pairs of proper fractions writing the answer in its simplest form e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ • Divide proper fractions by whole numbers e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ • Associate a fraction with division and calculate decimal fraction equivalents • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.		
	Measurement: Converting Units – Week 12 • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three 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 dp. • Convert between miles and kilometres.	**Fractions, Decimals & Percentages – Week 7-8** • 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.	
		Measurement: Perimeter, Area & Volume – Week 9-10 • 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)	
		Statistics – Week 11-12 • 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.