

Mathematics



Evelyn Street Primary Academy

Intended Curriculum

Evelyn Street Primary Academy's Intended Curriculum

Our school's curriculum has been designed with our community and our children at the heart of it. We support a diverse community that can face social and economic challenges. We have designed a curriculum to respond to the school's context giving rich knowledge and experiences that some of our children may not naturally access. So in relation to mathematics our aim to provide a successful curriculum that allows the opportunities for children to live prosperous and fulfilling lives. We believe that mathematics is a significant pillar for academic achievement. Therefore, we have constructed a high quality curriculum that is challenging and supportive for all our children so that they can progress and achieve.

By planning out our curriculum provision from EYFS, we create firm foundations for children to be engaged, motivated and inspired by the maths within the world around them. We aim to develop critical thinking from an early stage so that children can become fluent mathematicians, who are able to reason and problem solve with increased complexity as they progress through the school.

We have mapped out the aims and objectives of the National Curriculum with that of the 2020 Maths guidance document to ensure that our children are Ready to Progress onto the next year. Consequently, children leave us in year 6 as confident and competent mathematicians who enjoy the subject, ready for their next stages in learning

Evelyn Street Primary School- Number and Number Patterns

Maths progression through EYFS Nursery

Educational Programme: Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

ELG: Number

■ Have a deep understanding of number to 10, including the composition of each number ■ Subitise (recognise quantities without counting) up to 5 ■ Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts

ELG: Numerical Patterns

■ Verbally count beyond 20, recognising the pattern of the counting system ■ Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity ■ Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

Focus	Place value: Counting	Place value: Represent	Place value: Use and compare	Addition and subtraction; recall, represent, use	Addition and subtraction: Calculation	Addition and subtraction: Solve problems
Nursery Skills, Knowledge & Understanding	<ul style="list-style-type: none"> Enjoy counting verbally as far as they can go Point or touch (tag) each item, saying one number for each item, using the stable order of 1,2,3,4,5 Use some number names and number language within play, and may show fascination with large numbers 	<ul style="list-style-type: none"> Begin to recognise numerals 0 to 10 Subitise one, two and three objects (without counting) Link numerals with amounts up to 5 and maybe beyond 	<ul style="list-style-type: none"> Compare two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. <i>You've got two, I've got two. Same!</i> 	<ul style="list-style-type: none"> Count up to five items, recognising that the last number said represents the total counted so far (cardinal principle) Ascribe mathematical meaning to own marks 	<ul style="list-style-type: none"> Through play and exploration, begin to learn that numbers are made up (composed) of smaller numbers Begin to recognise that each counting number is one more than the one before 	<ul style="list-style-type: none"> Begin to use understanding of number to solve practical problems in play and meaningful activities Separate a group of three or four objects in different ways, beginning to recognise that the total is still the same

Focus	Spatial Awareness	Shape	Pattern	Measures
Nursery Skills, Knowledge & Understanding	<ul style="list-style-type: none"> Respond to and uses language of position and direction Predict, move and rotate objects to fit the space or create the shape they would like 	<ul style="list-style-type: none"> Choose items based on their shape which are appropriate for a purpose Know 2D shapes names Know some 3D shape names Show awareness of shape similarities and differences between objects Enjoy partitioning and combining shapes to make new shapes with 2D and 3D shapes Attempt to create arches and enclosures when building, using trial and improvement to select blocks 	<ul style="list-style-type: none"> Create their own spatial patterns showing some organisation or regularity Explore and adds to simple linear patterns of two or three repeating items, e.g., <i>stick, leaf (AB) or stick, leaf, stone (ABC)</i> Join in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next 	<ul style="list-style-type: none"> In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items Recall a sequence of events in everyday life and stories

□ Children will be exposed to mathematical vocabulary and mathematical experiences in the indoor and outdoor classrooms. □ Through well-chosen resources such as water play, sand play, construction and small world children will be able to play what they know in a purposeful way whilst learning.

EYFS- RECEPTION

EYFS - Reception CONTINUOUS PROVISION, VOCABULARY AND LANGUAGE

Autumn	<p><u>Getting to know you</u></p> <p>Discuss key times of day and class routines. Explore inside and outside and discuss where things belong</p>	<p><u>Just like me</u></p> <ul style="list-style-type: none"> • Match and sort • Compare and order amounts • Compare size, mass and capacity • Explore pattern 	<p><u>It's me 1,2,3!</u></p> <ul style="list-style-type: none"> • Representing 1,2,3 • Comparing 1,2,3 • Composition of 1,2,3 • Circles and triangles • Spatial awareness 	<p><u>Light and dark</u></p> <ul style="list-style-type: none"> • Four • Five • One more, one less • Shapes with 4 sides • Time - Night and day 	<p><u>Alive in 5!</u></p> <ul style="list-style-type: none"> • Introducing zero • Comparing numbers to 5 • Composition of 4 and 5 • Compare mass • Compare capacity 	
	<p>Autumn End Goals – Children review and build upon their learning from Nursery.</p> <p>Through these units and continuous provision, children develop a deep understanding of number to 5, including the composition of each number; they are also able to subitise up to 5. They are beginning to automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts).</p> <p>Children can verbally count to 5 recognising the pattern of the counting system. They can compare quantities up to 5 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</p> <p>In addition, children are beginning to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures</p>					
Spring	<p><u>Growing 6,7,8</u></p> <ul style="list-style-type: none"> • 6,7,8 • Making pairs • Combining 2 groups • Length and height • Time 		<p><u>Building 9, 10</u></p> <ul style="list-style-type: none"> • 9 and 10 • Comparing numbers to 10 – • Bonds to 10 • 3d shapes • Pattern 		<p><u>To 20 and beyond</u></p> <ul style="list-style-type: none"> • Building numbers beyond 10 • Counting patterns beyond 10 • Extend - Begin to look at 100 • Spatial reasoning 	
	<p>Spring End Goals –</p> <p>Children have a deep understanding of number to 10, including the composition of each number. They can subitise up to 5 and beyond. They can automatically recall number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</p> <p>Children can verbally count to 10 and beyond, recognising the pattern of the counting system. They can compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. They explore and represent patterns within numbers up to 10.</p> <p>In addition, children are beginning to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures</p>					
Summer	<p><u>To 20 and beyond continued</u></p> <ul style="list-style-type: none"> • Building numbers beyond 10 • Counting patterns beyond 10 • Extend - Begin to look at 100 • Spatial reasoning 		<p><u>First, then, now</u></p> <ul style="list-style-type: none"> • Adding more • Taking away • Extend – How many did I add on? How many did I take away? • Spatial reasoning 		<p><u>Find my pattern</u></p> <ul style="list-style-type: none"> • Doubling • Sharing and grouping • Even and odd • Spatial reasoning 	<p><u>On the move</u></p> <ul style="list-style-type: none"> • Deepening learning • Patterns and relationships • Spatial reasoning maps and plans
	<p>Summer End Goals –</p> <p>Children have a deep understanding of number to 10, including the composition of each number. They can subitise (recognise quantities without counting) up to 5 They automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</p> <p>Children verbally count beyond 20, recognising the pattern of the counting system. They compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. They explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p> <p>In addition, children have developed their spatial reasoning skills across all areas of mathematics including shape, space and measures. They are able to problem solve and to think critically about number, shape, space and measure.</p>					

Year 1

YEAR 1 Autumn End Goals

Autumn	Number: Place Value (within 10) <ul style="list-style-type: none"> RTP: NPV1 Count within 100, forwards and backwards, starting with any number. RTP: NPV2 Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$ NC: count, read and write numbers to 100 in numerals NC: given a number, identify 1 more and 1 less NC: identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least NC: read and write numbers from 1 to 20 in numerals and words. 		Number: Addition and Subtraction (within 10) <ul style="list-style-type: none"> RTP: NF1 Develop fluency in addition and subtraction facts within 10. RTP: AS1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. RTP: AS2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. NC: read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs NC: represent and use number bonds and related subtraction facts within 20 NC: add and subtract one-digit including 0 NC: solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$ 		Geometry: Shape <ul style="list-style-type: none"> RTP: G1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. NC: recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. 	Number: Place Value (within 20) <ul style="list-style-type: none"> RTP: NPV1 Count within 100, forwards and backwards, starting with any number. RTP: NPV2 Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$ NC: given a number, identify 1 more and 1 less NC: identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least NC: read and write numbers from 1 to 20 in numerals and words.
	Number: Addition and Subtraction (within 20) <ul style="list-style-type: none"> RTP: AS2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. NC: read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs NC: represent and use number bonds and related subtraction facts within 20 NC: add and subtract one-digit and two-digit numbers to 20, including 0 NC: solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$ 		Place value within 50 <ul style="list-style-type: none"> RTP: NPV1 Count within 100, forwards and backwards, starting with any number. RTP: NF2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers. NC: count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number NC: count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s NC: given a number, identify 1 more and 1 less NC: identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least NC: read and write numbers from 1 to 20 in numerals and words. 		Measurement: Length and height <ul style="list-style-type: none"> RTP: NPV2 Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$ RTP: AS2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. NC: compare, describe and solve practical problems for lengths and heights [for example, long/short, longer/shorter, tall/short, double/hal] NC: measure and begin to record lengths and heights 	Measurement: Mass and Volume <ul style="list-style-type: none"> RTP: AS2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. NC: compare, describe and solve practical problems for mass / weight AND capacity and volume NC: measure and begin to record mass/weight AND capacity and volume
Summer	Number: Multiplication and Division <ul style="list-style-type: none"> RTP: NF2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning NC: 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. 	Number: Fractions <ul style="list-style-type: none"> NC: recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity NC: recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity 	Geometry: Position & Direction <ul style="list-style-type: none"> RTP: G2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations NC: describe position, directions and movements, including whole, half, quarter and three-quarter turns. 	Number: Place Value (within 100) <ul style="list-style-type: none"> RTP: NPV1 Count within 100, forwards and backwards, starting with any number. NC: count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number NC: count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s NC: given a number, identify 1 more and 1 less NC: identify and represent numbers using objects and pictorial representations including the number line, and use the language of correspondence 	Measures: Money <ul style="list-style-type: none"> NC: recognise and know the value of different denominations of coins and notes 	Measurement: Time <ul style="list-style-type: none"> NC: compare, describe and solve practical problems for time NC: measure and begin to record time (hours, minutes, seconds) NC: sequence events in chronological order using language NC: recognise and use language relating to dates, including days of the week, weeks, months and years NC: tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

Year 2

YEAR 2 Autumn End Goals					
Autumn	<p>Number: Place Value</p> <ul style="list-style-type: none"> RTP: NPV1 Recognise place value of each digit in 2 digit numbers; compose and decompose 2 digit numbers (standard + non- standard partitioning) NC: read and write numbers to at least 100 in numerals and in words RTP: NPV2 Reason about the location of any 2 digit number, including identifying the previous and next multiple of 10. NC: identify, represent and estimate numbers using different representations, including the number line NC: compare and order numbers from 0 up to 100; use <, > and = signs NC: count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward NC: use place value and number facts to solve problems. 	<p>Number: Addition and Subtraction</p> <ul style="list-style-type: none"> RTP: NF1 Secure fluency in addition and subtraction facts within 10, through continued practice. NC: recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 RTP: AS1 Add and subtract across 10. NC: add and subtract numbers using various representations <u>mentally</u>, including: a two-digit and 1s, a two-digit and 10s, 2 two-digit numbers, 3 one-digit numbers RTP:AS2 Recognise the subtraction structure of 'difference' (How many more...?) NC: show that addition of 2 numbers is commutative and subtraction of one number from another is not NC: recognise and use the inverse relationship between addition and subtraction (use to check and solve missing number problems) RTP: AS3 and AS4 Add and subtract within 100: add and subtract only ones or only tens to/from a two- digit number <u>and</u> add and subtract any 2 two- digit numbers. NC: solve problems with addition and subtraction using representations, applying their increasing knowledge of mental and written methods 	<p>Measurement: money</p> <ul style="list-style-type: none"> Continue to explore RTP: NPV2 and AS1 –AS4 NC: recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value NC: find different combinations of coins that equal the same amounts of money. NC: solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change 	<p>Number: Multiplication and division</p> <ul style="list-style-type: none"> RTP: MD1 Recognise repeated addition contexts. 	
	<p>Number: Multiplication and Division</p> <ul style="list-style-type: none"> RTP: MD1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables RTP: MD2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division). NC: recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including odd and even numbers NC: calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs NC: show that multiplication of 2 numbers is commutative and division is not NC: solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. 	<p>Statistics</p> <ul style="list-style-type: none"> RTP: MD1 RTP: NPV2 NC: interpret and construct simple pictograms, tally charts, block diagrams and tables NC: ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity NC: ask and answer questions about totalling and comparing categorical data 	<p>Geometry: Properties of Shape</p> <ul style="list-style-type: none"> RTP: G1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties. NC: identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line NC: identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces NC: identify 2-D shapes on the surface of 3-D shapes NC: compare and sort common 2-D and 3-D shapes and everyday objects. 	<p>Number: Fractions</p> <ul style="list-style-type: none"> NC: recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity NC: write simple fractions, for example $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$. 	
Spring	<p>Measurement: Time</p> <ul style="list-style-type: none"> NC: compare and sequence intervals of time NC: 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. NC: know the number of minutes in an hour and the number of hours in a day 	<p>Geometry: Position and Direction</p> <ul style="list-style-type: none"> NC: order and arrange combinations of mathematical objects in patterns and sequences NC: 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). 	<p>Problem solving and consolidation</p>	<p>Measurement: Length & Height</p> <ul style="list-style-type: none"> NC: choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); to the nearest appropriate unit using rulers (tape measure etc) NC: compare and order lengths, mass, volume/capacity and record the results using >, < and = 	<p>Measurement: Mass, Capacity and Temperature</p> <ul style="list-style-type: none"> NC: choose and use appropriate standard units for mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) use scales, thermometers and measuring vessels NC: compare and order measures and record the results using >, < and =
	<p>Measurement: Time</p> <ul style="list-style-type: none"> NC: compare and sequence intervals of time NC: 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. NC: know the number of minutes in an hour and the number of hours in a day 	<p>Geometry: Position and Direction</p> <ul style="list-style-type: none"> NC: order and arrange combinations of mathematical objects in patterns and sequences NC: 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). 	<p>Problem solving and consolidation</p>	<p>Measurement: Length & Height</p> <ul style="list-style-type: none"> NC: choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); to the nearest appropriate unit using rulers (tape measure etc) NC: compare and order lengths, mass, volume/capacity and record the results using >, < and = 	<p>Measurement: Mass, Capacity and Temperature</p> <ul style="list-style-type: none"> NC: choose and use appropriate standard units for mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) use scales, thermometers and measuring vessels NC: compare and order measures and record the results using >, < and =
Summer	<p>Measurement: Time</p> <ul style="list-style-type: none"> NC: compare and sequence intervals of time NC: 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. NC: know the number of minutes in an hour and the number of hours in a day 	<p>Geometry: Position and Direction</p> <ul style="list-style-type: none"> NC: order and arrange combinations of mathematical objects in patterns and sequences NC: 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). 	<p>Problem solving and consolidation</p>	<p>Measurement: Length & Height</p> <ul style="list-style-type: none"> NC: choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); to the nearest appropriate unit using rulers (tape measure etc) NC: compare and order lengths, mass, volume/capacity and record the results using >, < and = 	<p>Measurement: Mass, Capacity and Temperature</p> <ul style="list-style-type: none"> NC: choose and use appropriate standard units for mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) use scales, thermometers and measuring vessels NC: compare and order measures and record the results using >, < and =

Year 3

Year 3 End Goals

Year 3 End Goals						
Autumn	Number: Place Value		Number: Addition and Subtraction		Number: Multiplication and Division	
	<ul style="list-style-type: none"> NPV1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10. NPV2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning. NPV3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10. NPV4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts. NC: solve number problems and practical problems involving these ideas 		<ul style="list-style-type: none"> AS1 Calculate complements to 100, for example: $46 + ? = 100$ AS2 Add and subtract up to three-digit numbers using columnar methods. AS3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction. NF1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. NF3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). NC: solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. 		<ul style="list-style-type: none"> MD1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division. NF2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number NF3 NPV1 NC: 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 	
Spring	Multiplication and division		Length and perimeter	Fractions		Measure
	<ul style="list-style-type: none"> MD1 NC: recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables NC: write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods NC: 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 		<ul style="list-style-type: none"> NPV2, AS2 and NPV3 NC: measure, compare, add and subtract: lengths (m/cm/mm) NC: measure the perimeter of simple 2-D shapes 	<ul style="list-style-type: none"> F1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts (unit fractions and non-unit fractions with small denominators) F2 Find unit fractions of quantities using known division facts (multiplication tables fluency). F3 Reason about the location of any fraction within 1 in the linear number system. NC: 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 NC: recognise and show, using diagrams, equivalent fractions with small denominators NC: compare and order unit fractions, and fractions with the same denominators F4 Add and subtract fractions with the same denominator, within 1. NC solve problems that involve all of the above 		<ul style="list-style-type: none"> NC: measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Summer	Consolidation: place value, money		Time		Statistics	Properties of shape
	<ul style="list-style-type: none"> NPV2 and AS2 NPV4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts. NC: add and subtract amounts of money to give change, using both £ and p in practical contexts 		<ul style="list-style-type: none"> NC: tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks NC: 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 NC: know the number of seconds in a minute and the number of days in each month, year and leap year NC: compare durations of events 		<ul style="list-style-type: none"> NC: interpret and present data - bar charts, pictograms and tables NC: solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables. 	<ul style="list-style-type: none"> G1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations. NC: 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 NC: recognise angles as a property of shape or a description of a turn G2 Draw polygons by joining marked points, and identify parallel and perpendicular sides. NC: identify horizontal and vertical lines NC: draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them

Year 4

Year 4 End Goals

Year 4 End Goals							
Autumn	Number: Place Value <ul style="list-style-type: none"> NPV1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100. NPV2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. NC: identify, represent and estimate numbers using different representations NPV3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100 (AND 10), and rounding to the nearest of each. NC: count backwards through 0 to include negative numbers NC: solve number and practical problems that involve all of the above and with increasingly large positive numbers NC: count in multiples of 25 and 1,000 NC: read Roman numerals to 100 and know that over time, the numeral system changed to include 0 and place value 		Number: Addition and Subtraction <ul style="list-style-type: none"> NF3 Apply place-value knowledge to known additive facts (scaling facts by 100) NC: add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate NC: estimate and use inverse operations to check answers to a calculation NC: solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 		Number: Multiplication and Division <ul style="list-style-type: none"> NF1 Recall multiplication and division facts up to 12x12 and recognise products in multiplication tables as multiples of the corresponding number. NF3 Apply place-value knowledge to known multiplicative number facts (scaling facts by 100) MD1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. MD2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. NC: count in multiples of 6, 7, 9, 25 and 1,000 		
	Multiplication and division <ul style="list-style-type: none"> NF1, NF3, MD2 MD3 Understand and apply the distributive property of multiplication NF2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders NC: 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 NC: recognise and use factor pairs and commutativity in mental calculations NC: multiply two-digit and three-digit numbers by a one-digit number using formal written layout NC: 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. 		Length, perimeter and area <ul style="list-style-type: none"> NPV4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. G2 Find the perimeter of regular and irregular polygons. NC: convert between different units of measure NC: measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres NC: find the area of rectilinear shapes by counting squares 	Fractions <ul style="list-style-type: none"> F1 Reason about the location of mixed numbers in the linear number system. F2 Convert mixed numbers to improper fractions and vice versa. F3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. NC: recognise and show, using diagrams, families of common equivalent fractions NC: count up and down in hundredths; recognise that hundredths arise when dividing an object by a 100 and dividing tenths by 10. NC: 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 NC: solve simple measure and money problems involving fractions and decimals to 2 decimal places 		Decimals <ul style="list-style-type: none"> NC: find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths NC: recognise and write decimal equivalents of any number of tenths or hundredths 	
Spring	Decimals and money <p>Decimals</p> <ul style="list-style-type: none"> NC: compare numbers with the same number of decimal places up to 2 decimal places NC: recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ NC: round decimals with 1 decimal place to the nearest whole number <p>Money</p> <ul style="list-style-type: none"> NC: estimate, compare and calculate different measures, including money in pounds and pence NC: solve simple measure and money problems involving fractions and decimals to 2 decimal places. NC: round decimals with 1 decimal place to the nearest whole number 		Time <ul style="list-style-type: none"> NC: read, write and convert time between analogue and digital 12 and 24-hour clocks NC: solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days 	Statistics <ul style="list-style-type: none"> NPV4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. NC: interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs NC: solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 		Properties of shape and Position and Direction <ul style="list-style-type: none"> NC: identify acute and obtuse angles and compare and order angles up to 2 right angles by size G2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. NC: compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes G3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. <p>Position and direction</p> <ul style="list-style-type: none"> NC: describe positions on a 2-D grid as coordinates in the first quadrant G1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. NC: describe movements between positions as translations of a given unit to the left/right and up/down 	
	Decimals and money <p>Decimals</p> <ul style="list-style-type: none"> NC: compare numbers with the same number of decimal places up to 2 decimal places NC: recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ NC: round decimals with 1 decimal place to the nearest whole number <p>Money</p> <ul style="list-style-type: none"> NC: estimate, compare and calculate different measures, including money in pounds and pence NC: solve simple measure and money problems involving fractions and decimals to 2 decimal places. NC: round decimals with 1 decimal place to the nearest whole number 		Time <ul style="list-style-type: none"> NC: read, write and convert time between analogue and digital 12 and 24-hour clocks NC: solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days 	Statistics <ul style="list-style-type: none"> NPV4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. NC: interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs NC: solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 		Properties of shape and Position and Direction <ul style="list-style-type: none"> NC: identify acute and obtuse angles and compare and order angles up to 2 right angles by size G2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. NC: compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes G3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. <p>Position and direction</p> <ul style="list-style-type: none"> NC: describe positions on a 2-D grid as coordinates in the first quadrant G1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. NC: describe movements between positions as translations of a given unit to the left/right and up/down 	
Summer	Decimals and money <p>Decimals</p> <ul style="list-style-type: none"> NC: compare numbers with the same number of decimal places up to 2 decimal places NC: recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ NC: round decimals with 1 decimal place to the nearest whole number <p>Money</p> <ul style="list-style-type: none"> NC: estimate, compare and calculate different measures, including money in pounds and pence NC: solve simple measure and money problems involving fractions and decimals to 2 decimal places. NC: round decimals with 1 decimal place to the nearest whole number 		Time <ul style="list-style-type: none"> NC: read, write and convert time between analogue and digital 12 and 24-hour clocks NC: solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days 	Statistics <ul style="list-style-type: none"> NPV4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. NC: interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs NC: solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 		Properties of shape and Position and Direction <ul style="list-style-type: none"> NC: identify acute and obtuse angles and compare and order angles up to 2 right angles by size G2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. NC: compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes G3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. <p>Position and direction</p> <ul style="list-style-type: none"> NC: describe positions on a 2-D grid as coordinates in the first quadrant G1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. NC: describe movements between positions as translations of a given unit to the left/right and up/down 	
	Decimals and money <p>Decimals</p> <ul style="list-style-type: none"> NC: compare numbers with the same number of decimal places up to 2 decimal places NC: recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ NC: round decimals with 1 decimal place to the nearest whole number <p>Money</p> <ul style="list-style-type: none"> NC: estimate, compare and calculate different measures, including money in pounds and pence NC: solve simple measure and money problems involving fractions and decimals to 2 decimal places. NC: round decimals with 1 decimal place to the nearest whole number 		Time <ul style="list-style-type: none"> NC: read, write and convert time between analogue and digital 12 and 24-hour clocks NC: solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days 	Statistics <ul style="list-style-type: none"> NPV4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. NC: interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs NC: solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 		Properties of shape and Position and Direction <ul style="list-style-type: none"> NC: identify acute and obtuse angles and compare and order angles up to 2 right angles by size G2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. NC: compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes G3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. <p>Position and direction</p> <ul style="list-style-type: none"> NC: describe positions on a 2-D grid as coordinates in the first quadrant G1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. NC: describe movements between positions as translations of a given unit to the left/right and up/down 	

Year 5

Year 5 End Goals - Autumn

Number: Place Value	Number: Four operations	Number: Fractions
<ul style="list-style-type: none"> • NPV2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning. • NPV3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each. • NC: read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit • NC: count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 • NC: interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0 • NC: round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 • NC: solve number problems and practical problems that involve all of the above • NC: read Roman numerals to 1,000 (M) and recognise years written in Roman numerals • 	<ul style="list-style-type: none"> • NF2 Apply place-value knowledge to known additive facts • NC: add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar) • NC: add and subtract numbers mentally with increasingly large numbers • NC: use rounding to check answers and determine, in context, levels of accuracy • NC: solve + AND - multi-step problems in contexts, deciding which operations and methods to use and why. • MD1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. • MD2 Find factors and multiples of positive integers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors. • NC: know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers <u>and</u> establish whether a number up to 100 is prime; recall prime numbers to 19 • NC: multiply and divide numbers mentally drawing upon known facts • NC: recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³) • NC: solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes • NC: solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. • MD3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. • NC: multiply numbers up to 4 digits by a one- <u>or two-digit</u> number using a formal written method, including long multiplication for two-digit numbers • MD4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context. • NC: solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign 	<ul style="list-style-type: none"> • 5F2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system. • 5F1 Find non-unit fractions of quantities • NC: compare and order fractions whose denominators are all multiples of the same number • NC: identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • NC: recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number • NC: add and subtract fractions with the same denominator and denominators that are multiples of the same number • NC: multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams

Year 5 End Goals - Spring

Number: Decimal and Percentages	Measure: Convert units	Number: Ratio	Measure: Perimeter, Area and Volume	Consolidation
<ul style="list-style-type: none"> • NPV1 - 4. • NC: read and write decimal numbers as fractions • NC: recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • NC: read, write, order and compare numbers with up to 3 decimal places • F-3 and NC: solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and fractions with a denominator of a multiple of 10 or 25. • NC: recognise the per cent symbol (%) and understand that per cent relates to “number of parts per 100”, and write percentages as a fraction with denominator 100, and as a decimal fraction • MD1 and NF2 • NC: add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • NC: add and subtract numbers mentally with increasingly large numbers • NC: use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • NC: solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • NC: multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 • NC: solve problems involving number up to 3 decimal places • NC: use all four operations to solve problems involving measure using decimal notation including scaling. • NC: solve problems involving numbers up to 3 decimal places 	<p>NPV5 Convert between units of measure, including using common decimals and fractions.</p> <p>NC: understand and use approximate equivalences between metric units and common imperial units (inches, pounds, pints)</p> <p>NC: solve problems involving converting between units of time</p> <p>NC: use all four operations to solve problems involving measure using decimal notation including scaling.</p>	<p>NC: solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates</p>	<p>G2 Compare areas and calculate the area of rectangles (including squares) using standard units. NC: including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes</p> <p>NC: measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres, estimate</p> <p>NC: estimate volume and capacity</p>	

Year 5 End Goals - Summer

Geometry: Position and direction	Geometry: Property of Shape	Statistics	Investigations and consolidation Problem Solving
<ul style="list-style-type: none"> • NC: 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 	<ul style="list-style-type: none"> • G1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size. • NC: acute, obtuse and reflex angles • NC: 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° • NC: use the properties of rectangles to deduce related facts and find missing lengths and angles • NC: distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • NC: identify 3-D shapes, including cubes and other cuboids, from 2-D representations • 	<ul style="list-style-type: none"> • NPV4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. • NC: solve comparison, sum and difference problems using information presented in a line graph • NC: complete, read and interpret information in tables, including timetables 	

Year 6

Year 6 End Goals - Autumn

Number: Place Value	Number: Four operations	Number: Fractions
<ul style="list-style-type: none"> • NPV2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non- standard partitioning. • NPV3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. • NPV4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts. • NC: read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • NC: use negative numbers in context, and calculate intervals across 0 • NC: solve number and practical problems that involve all of the above 	<ul style="list-style-type: none"> • AS/MD–1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). • AS/MD2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. • NC: multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • NC: divide numbers up to 4 digits by a two-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 • NC: divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • NC: perform mental calculations, including with mixed operations and large numbers. • NC: identify common factors, common multiples and prime numbers • NC: use their knowledge of the order of operations to carry out calculations involving the 4 operations • NC: solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • NC: solve problems involving addition, subtraction, multiplication and division • NC: use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. 	<ul style="list-style-type: none"> • 6F–1 Recognise when fractions can be simplified, and use common factors to simplify fractions. • 6F–2 Express fractions in a common denomination and use this to compare fractions that are similar in value. • 6F–3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy. • 6NPV–4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts. • NC: add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • NC: multiply simple pairs of proper fractions, writing the answer in its simplest form • NC: divide proper fractions by whole numbers • NC: associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.

Year 6 End Goals - Spring

Number: Decimal and Percentages	Measure: Convert units	Number: Ratio	Measure: Perimeter, Area and Volume	Algebra
<p>NPV2 NC: identify the value of each digit in numbers given to three decimal places</p> <p>NPV1 (NC) giving answers are up to three decimal places</p> <p>NC: multiply one-digit numbers with up to 2 decimal places by whole numbers NC: use written division methods in cases where the answer has up to 2 decimal places</p> <p>NC: solve problems which require answers to be rounded to specified degrees of accuracy</p> <p>NC: solve problems involving the calculation of percentages</p> <p>NC: recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</p> <p>NC: recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</p>	<p>NC: solve problems involving the calculation and conversion of units of measure, using decimal notation up to 2 decimal places where appropriate</p> <p>NC: 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</p> <p>NC: convert between miles and kilometres</p>	<p>AS/MD3 Solve problems involving ratio relationships.</p> <p>NC: solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</p> <p>NC: solve problems involving the calculation of %s and the use of % for comparison</p> <p>NC: solve problems involving similar shapes where the scale factor is known or can be found</p> <p>NC: solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</p>	<p>G1.</p> <p>NC: recognise that shapes with the same areas can have different perimeters and vice versa</p> <p>NC: recognise when it is possible to use formulae for area and volume of shapes</p> <p>NC: calculate the area of parallelograms and triangles</p> <p>NC: calculate, estimate and compare volume of cubes and cuboids using standard units(cm³ and m³ and other units)</p>	<p>6AS/MD-4 Solve problems with 2 unknowns.</p> <p>NC: use simple formulae NC: generate and describe linear number sequences NC: express missing number problems algebraically</p> <p>NC: find pairs of numbers that satisfy an equation with two unknowns</p> <p>NC: enumerate possibilities of combinations of 2 variables.</p>

Year 6 End Goals – Summer

Geometry: Position and direction	Geometry: Property of Shape	Statistics	Investigations and consolidation Problem Solving
<ul style="list-style-type: none"> NC: describe positions on the full coordinate grid (all 4 quadrants) NC: draw and translate simple shapes on the coordinate plane, and reflect them in the axes 	<ul style="list-style-type: none"> G1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems. NC: recognise, describe and build simple 3-D shapes, including making nets NC: compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons NC: recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. 	<ul style="list-style-type: none"> NC: illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius NC: interpret and construct pie charts and line graphs and use these to solve problems NC: calculate and interpret the mean as an average 	