



Maths Overview

Year 2 and 3 Autumn

- **Blue highlighting** denotes specific material moved down from a higher year.
- **Yellow highlighting** denotes content not explicit in the PNS for the year, to help you transfer from your existing lesson planning.
- **Purple text** denotes repeated statements.
- *Italics* indicate illustrative examples, non-statutory notes and guidance from the new PoS. (NB most of the non-statutory notes and guidance are new, from a higher year, or beyond the PNS.)

	Year 2	Year 3
Number and place value	<ul style="list-style-type: none"> • count in steps of 2 and 5 from 0, and tens from any number, forward or backward e.g. 93, 83, 73, 63, ... • recognise the place value of each digit in a two-digit number (tens, ones) • identify, represent and estimate numbers using different representations, including the number line • read and begin to write numbers to at least 100 in numerals and in words e.g. <i>forty</i> • compare and order numbers from 0 up to 100 • use place value and number facts to solve problems 	<ul style="list-style-type: none"> • Count from 0 in multiples of 4, 50 and 100; find 10 or 100 more or less than a given number e.g. <i>10 more than 395</i> • Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • Identify, represent and estimate numbers using different representations <i>including those related to measure e.g. using place value cards to show $985 = 900 + 80 + 5$; tally marks; base 10 apparatus.</i> • <i>Apply partitioning related to place value using varied and increasingly complex problems e.g. $146 = 100$ and 40 and 6, $146 = 130$ and 16</i> • Read and write numbers to at least 1000 in numerals • Compare and order numbers up to 1000 • Solve number problems and practical problems involving place value and rounding.
Addition and subtraction	<ul style="list-style-type: none"> • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> ○ a two-digit number and ones ○ a two-digit number and tens e.g. $87 - 30 = 57$ • solve problems with addition and subtraction: <ul style="list-style-type: none"> ○ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ○ applying their increasing knowledge of mental and written methods • begin to recall and use addition and subtraction facts to 20, e.g. $19 - 7 = 12$ and derive and use related facts up to 100 • e.g. $30 = 90 - 60$ • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. • show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot 	<ul style="list-style-type: none"> • Add and subtract numbers mentally, including: <ul style="list-style-type: none"> ○ a three-digit number and ones ○ a three-digit number and tens ○ a three-digit number and hundreds e.g. $858 - 300$ ○ two-digit numbers where the answer could exceed 100 e.g. $99 + 18$ • Add and subtract numbers with up to three digits • Estimate the answer to a calculation and use inverse operations to check answers e.g. $702 - 249$ is approximately $700 - 250 = 450$; check $453 + 249 = 702$ • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction e.g. <i>investigate the numbers which could go in the boxes when</i> $2 \times \square = 7 + \square$
Multiplication and division	<ul style="list-style-type: none"> • begin to recall and use multiplication and division facts for the 2, and 10 multiplication tables, including recognising odd and even numbers e.g. $22 \div 2 = 11$ • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot 	<ul style="list-style-type: none"> • Recall and use multiplication and division facts for the 3 and 4 multiplication tables • <i>Develop efficient mental methods, for example, using commutativity e.g. $2 \times 7 \times 5 = 2 \times 5 \times 7 = 10 \times 7 = 70$ and multiplication and division facts to derive related facts e.g. using $3 \times 2 = 6$, $6 \div 3 = 2$ and $2 = 6 \div 3$ to derive $30 \times 2 = 60$, $60 \div 3 = 20$ and $20 = 60 \div 3$</i> • 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 methods e.g. 22×3

	<ul style="list-style-type: none"> recognise and use the inverse relationship between multiplication and division in calculations relate multiplication and division to grouping and sharing discrete (e.g. counters and continuous quantities e.g. water solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts e.g. share 18 counters between 3 children 	<ul style="list-style-type: none"> Solve problems, including missing number problems, involving multiplication and division e.g. 90 
Fractions	<ul style="list-style-type: none"> recognise, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a shape 	<ul style="list-style-type: none"> 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 e.g. 3 cakes shared between 10 children gives $\frac{3}{10}$ each. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators e.g. find $\frac{1}{3}$ of 9 beads, then $\frac{2}{3}$ of 9 beads understand the relation between unit fractions as operators (fractions of), and division by integers e.g. to find $\frac{1}{3}$, you divide by 3; to find $\frac{1}{5}$, you divide by 5 Recognise and use fractions as numbers on the number line: unit fractions and non-unit fractions with small denominators Recognise and show, using diagrams, equivalent fractions with small denominators e.g. $\frac{1}{2} = \frac{3}{6}$  <ul style="list-style-type: none"> Solve problems that involve fractions e.g. Amy ate $\frac{1}{4}$ of her 12 sweets and Ben ate $\frac{1}{2}$ of his 8 sweets, who ate more sweets?
Measurement	<ul style="list-style-type: none"> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit, using rulers compare and order lengths and record the results using >, < and = recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins to equal the same amounts of money e.g. find different ways to make 25p solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change e.g. I buy a toy for £14; how much change do I get from £20? compare and sequence intervals of time tell and write the time quarter past/to the hour and draw the hands on a clock face to show these times e.g. draw the hands on a clock face to show $\frac{1}{4}$ to 6, making sure the hour hand is located correctly 	<ul style="list-style-type: none"> Measure, compare, add and subtract: length (m/cm/mm) e.g. how much ribbon is left when 36cm is cut from 1m? Which is longer: 6$\frac{1}{2}$cm or 62mm? 5m or 450cm? Measure and draw lines to the nearest $\frac{1}{2}$ cm. Know the approximate length of a book, a room, a handspan... Add and subtract amounts of money to give change, using both £ and p in practical contexts e.g. I buy 2 packs of sweets for 75p each; how much change will I get from £2? Tell and write the time from an analogue clock e.g. draw hands on a clock face to show 'ten to four', making sure the hour hand is located correctly Record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight Compare durations of events, for example to calculate the time taken by particular events or tasks.
Properties of shape	<ul style="list-style-type: none"> identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line draw lines and shapes using a straight edge identify and describe the properties of 3-D shapes, including the number of vertices and faces compare and sort common 2-D and 3-D shapes and everyday objects e.g. sort 3-D shapes in different ways such as whether they have triangular faces, all straight edges... recognise and name, polygons e.g. pentagon, hexagon, octagon and cones 	<ul style="list-style-type: none"> Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations; and describe them e.g. number of faces, edges and vertices (singular: vertex), e.g. guess my shape: it has a square face and four triangular faces (square-based pyramid)

Position and direction	<ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns, <i>including those in different orientations e.g. a turning shape, draw the next shape in the pattern</i> 	<ul style="list-style-type: none"> Interpret and present data using bar charts, pictograms and tables, <i>understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy.</i> Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables. <i>Interpret data presented in many contexts</i>
Use and interpret data	<ul style="list-style-type: none"> interpret and begin to construct simple pictograms, tally charts, block diagrams and simple tables answer simple questions by counting the number of objects in each category and sorting the categories by quantity answer questions about totalling and comparing categorical data. 	<ul style="list-style-type: none"> Interpret and present data using bar charts, pictograms and tables, <i>understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy.</i> Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables. <i>Interpret data presented in many contexts</i>

Y2 and Y3 Spring

	Year 2	Year 3
Number and place value	<ul style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and tens from any number, forward or backward recognise the place value of each digit in a two-digit number (tens, ones) identify, represent and estimate numbers using different representations, including the number line read and write numbers to at least 100 in numerals and in words e.g. <i>forty-five</i> compare and order numbers from 0 up to 100; use <, > and = signs use place value and number facts to solve problems. partition numbers in different ways e.g. $23 = 20 + 3 = 10 + 13$ 	<ul style="list-style-type: none"> Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Identify, represent and estimate numbers using different representations <i>including those related to measure</i> Apply partitioning related to place value using varied and increasingly complex problems Read and write numbers to at least 1000 in numerals and in words e.g. <i>three hundred and forty-six</i> Compare and order numbers up to 1000 Solve number problems and practical problems involving place value and rounding
Addition and subtraction	<ul style="list-style-type: none"> add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> a two-digit number and ones a two-digit number and tens two two-digit numbers e.g. $34+29$ adding three one-digit numbers e.g. $6 + 5 + 4$ solve problems with addition and subtraction: <ul style="list-style-type: none"> using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot <p>use the language 'sum' and 'difference' e.g. <i>find two numbers with a difference of 6 (3 and 9, 10 and 16..);</i></p>	<ul style="list-style-type: none"> Add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones a three-digit number and tens e.g. $476 + 50$ a three-digit number and hundreds. two-digit numbers where the answer could exceed 100 Add and subtract numbers with up to three digits, using formal written methods of columnar addition Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction e.g. <i>There are 46 boys and 58 girls in Year 3, but 12 children are away; how many Year 3 children are at school?</i>
Multiplication and division	<ul style="list-style-type: none"> recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot recognise and use the inverse relationship between multiplication and division in calculations relate multiplication and division to grouping and sharing discrete e.g. <i>counters and continuous quantities e.g. water, and relating these to fractions and measures e.g. $40\text{cm} \div 2 = 20\text{cm}$; 20cm is $\frac{1}{2}$ of 40cm</i> solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts 	<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables Develop efficient mental methods, for example, using commutativity and multiplication and division facts to derive related facts 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 e.g. 34×5 or $64 \div 4$ Solve problems, including missing number problems, involving multiplication and division e.g. $240 = \square \times 4$
Fractions	<ul style="list-style-type: none"> 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 e.g. <i>how long is $\frac{1}{3}$ of a ribbon which is 60 cm long?</i> write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of two quarters and one half. 	<ul style="list-style-type: none"> 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 Connect tenths to place value, decimal measures and to division by 10 e.g. $\frac{7}{10} = 0.7$

	<ul style="list-style-type: none"> •count in fractions e.g. 0, $\frac{1}{2}$, 1, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, ... 	<ul style="list-style-type: none"> • Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators e.g. there are 8 marbles and three of them are red; what fraction of the marbles are red? • Understand the relation between unit fractions as operators (fractions of), and division by integers e.g. to find $\frac{1}{3}$, you divide by 3; to find $\frac{1}{5}$, you divide by 5 • Recognise and use fractions as numbers on the number line: unit fractions and non-unit fractions with small denominators • Recognise and show, using diagrams, equivalent fractions with small denominators • Compare and order unit fractions, and fractions with the same denominators e.g. put in order $\frac{3}{8}$, $\frac{1}{8}$, $\frac{7}{8}$, $\frac{5}{8}$ • Solve problems that involve fractions
Measurement	<ul style="list-style-type: none"> •choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g) to the nearest appropriate unit, using rulers, scales •compare and order lengths, masses and record the results using >, < and = •recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value •find different combinations of coins to equal the same amounts of money •solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change e.g. I buy 2 bags of sweets for 20p each, how much change will I get from 50p? •compare and sequence intervals of time •tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. 	<ul style="list-style-type: none"> • Measure, compare, add and subtract: length (m/cm/mm) mass (kg/g) e.g. find 3 vegetables which weigh between 100g and 300g. Read 250g on a scale labelled every 100g. Which is heavier: 1kg 300g or $1\frac{1}{2}$kg? Know the approximate mass of a book, an apple, a baby, a man... • Add and subtract amounts of money to give change, using both £ and p in practical contexts e.g. I have a £2 coin, two £1 coins, three 50p coins, a 20p and seven 5p coins; how much more do I need to make £10? • Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour digital clocks • Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight • Compare durations of events, for example to calculate the time taken by particular events or tasks. • Know the number of seconds in a minute and the number of days in each month, year and leap year
Properties of shape	<ul style="list-style-type: none"> •identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line •draw lines and shapes using a straight edge •identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces •compare and sort common 2-D and 3-D shapes and everyday objects e.g. sort 3-D shapes in different ways such as whether they are prisms, whether they have more than 8 edges... •recognise and name quadrilaterals, polygons e.g. pentagon, hexagon, octagon, prisms and cones •identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid 	<ul style="list-style-type: none"> •Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations; and describe them •Recognise that angles are a property of shape or a description of turn •Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle •Describe the properties of shapes using accurate language, including symmetrical/not symmetrical, lengths of lines, and acute and obtuse angles e.g. sort triangles into those with an obtuse angle and those without
Position and direction	<ul style="list-style-type: none"> •order and arrange combinations of mathematical objects in patterns, including those in different orientations •use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line. •Use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (e.g. pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles) 	

Use and interpret data	<ul style="list-style-type: none">•interpret and construct simple pictograms <i>e.g. where the symbol represents 2, 5 or 10 units</i>, tally charts, block diagrams and simple tables•answer simple questions by counting the number of objects in each category and sorting the categories by quantity•answer questions about totalling and comparing categorical data.	<ul style="list-style-type: none">•Interpret and present data using bar charts, pictograms and tables, <i>understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy.</i>•Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.•<i>Interpret data presented in many contexts</i>
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YR, Y1, Y2 and Y3 Summer

	Year 2	Year 3									
Number and place value	<ul style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and tens from any number, forward or backward recognise the place value of each digit in a two-digit number (tens, ones) identify, represent and estimate numbers using different representations, including the number line read and write numbers to at least 100 in numerals and in words compare and order numbers from 0 up to 100; use <, > and = signs use place value and number facts to solve problems. partition numbers in different ways e.g. $23 = 20 + 3 = 10 + 13$ 	<ul style="list-style-type: none"> Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Identify, represent and estimate numbers using different representations <i>including those related to measure</i> Apply partitioning related to place value using varied and increasingly complex problems Read and write numbers to at least 1000 in numerals and in words Compare and order numbers up to 1000 Solve number problems and practical problems involving place value and rounding 									
Addition and subtraction	<ul style="list-style-type: none"> add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> a two-digit number and ones a two-digit number and tens two two-digit numbers e.g. $63-29$ adding three one-digit numbers e.g. $9 + 7 + 9$ solve problems with addition and subtraction: <ul style="list-style-type: none"> using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot use the language 'sum' and 'difference' e.g. three numbers sum to 12, two numbers are 3 and 7, what is the third number? 	<ul style="list-style-type: none"> Add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones a three-digit number and tens e.g. $824 - 30$ a three-digit number and hundreds two-digit numbers where the answer could exceed 100 e.g. $68+47$ Add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction e.g. investigate the numbers which could go in the boxes when <div style="display: flex; align-items: center; justify-content: center; gap: 20px;"> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">3</td><td style="width: 20px; height: 20px;"></td></tr> </table> = <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">2</td><td style="width: 20px; height: 20px;"></td></tr> </table> + <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">6</td><td style="width: 20px; height: 20px;"></td></tr> </table> </div> Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction e.g. investigate the numbers which could go in the boxes when 		3			2			6	
	3										
	2										
	6										
Multiplication and division	<ul style="list-style-type: none"> recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot recognise and use the inverse relationship between multiplication and division in calculations relate multiplication and division to grouping and sharing discrete e.g. counters and continuous quantities e.g. water, and relating these to fractions and measures e.g. $40\text{cm} \div 2 = 20\text{cm}$; 20cm is $\frac{1}{2}$ of 40cm solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts e.g. there are 10 pencils in a box, I have 5 boxes and 3 spare pencils, how many do I have altogether? 	<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables Develop efficient mental methods, for example, using commutativity e.g. $4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 = 240$ and multiplication and division facts to derive related facts 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 e.g. 46×8 or $81 \div 3$ Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems (e.g. change a recipe for 2 people to make enough for 6 people) and correspondence problems in which n objects are connected to m objects. e.g. 3 hats and 4 coats, how many different outfits? Or Share 6 cakes equally between 4 children. 									
Fractions	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 									

	<ul style="list-style-type: none"> • write simple fractions e.g. $1/2$ of $6 = 3$ and recognise the equivalence of two quarters and one half. • count in fractions e.g. $3\frac{1}{4}$, $3\frac{2}{4}$, $3\frac{3}{4}$, 4, $4\frac{1}{4}$, ... 	<ul style="list-style-type: none"> • Connect tenths to place value and decimal measures (not restricted to decimals between 0 and 1) and to division by 10 e.g. $13/10 = 1.3$ • Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators e.g. find $4/5$ of 30 • Understand the relation between unit fractions as operators (fractions of), and division by integers e.g. to find $1/3$, you divide by 3; to find $1/5$, you divide by 5 • Recognise and use fractions as numbers on the number line: unit fractions and non-unit fractions with small denominators • Recognise and show, using diagrams, equivalent fractions with small denominators • Add and subtract fractions with the same denominator within one whole e.g. If $1/3$ of a cake is eaten then $2/3$ remains or $5/7 + 1/7 = 6/7$ • Compare and order unit fractions, and fractions with the same denominators e.g. put in order $1/2$, $1/8$, $1/4$, $1/6$ • Solve problems that involve fractions e.g. Ali, Ben and Cara have 24 fish. $2/3$ of them belong to Ali, $1/4$ belong to Ben and the rest belong to Cara; how many fish belong to Cara?
Measurement	<ul style="list-style-type: none"> • choose and use appropriate standard units to estimate and measure: length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order lengths, masses, volume/capacity and record the results using $>$, $<$ and $=$ • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value e.g. make 73p using the fewest coins • find different combinations of coins to equal the same amounts of money • solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change e.g. I buy a cake for 60p and a biscuit for 25p, how much change will I get from £1? • compare and sequence intervals of time • tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. 	<ul style="list-style-type: none"> • measure, compare, add and subtract: length (m/cm/mm); mass (kg/g); volume/capacity (l/ml) e.g. Read 300ml on a scale labelled every 200ml. Order a set of containers by capacity, using a measuring jug and water to check. Know the approximate capacity of a cup, a jug, a bucket... • measure the perimeter of simple 2-D shapes e.g. measure accurately the sides of a triangle in cm or mm, in order to find the perimeter • add and subtract amounts of money to give change, using both £ and p in practical contexts e.g. Ali is saving 80p each week, to buy a toy costing £5; how many weeks will it take him? • tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour digital clocks • estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight • Compare durations of events, for example to calculate the time taken by particular events or tasks. • Know the number of seconds in a minute and the number of days in each month, year and leap year
Properties of shape	<ul style="list-style-type: none"> • identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line • draw lines and shapes using a straight edge • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • compare and sort common 2-D and 3-D shapes and everyday objects e.g. sort 2-D shapes in different ways such as whether they are quadrilaterals and have line symmetry.... • recognise and name quadrilaterals, polygons e.g. pentagon, hexagon, octagon, prisms and cones • identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid 	<ul style="list-style-type: none"> • Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations; and describe them • Recognise that angles are a property of shape or a description of turn • Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle • Describe the properties of shapes using accurate language, including symmetrical/not symmetrical, lengths of lines, and acute and obtuse angles • Identify horizontal and vertical lines and pairs of perpendicular and parallel lines

Position and direction	<ul style="list-style-type: none"> •order and arrange combinations of mathematical objects in patterns, <i>including those in different orientations</i> •use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line. •Use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (e.g. pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles) 	
Use and interpret data	<ul style="list-style-type: none"> •interpret and construct simple pictograms e.g. where the symbol represents 2, 5 or 10 units, tally charts, block diagrams and simple tables •answer simple questions by counting the number of objects in each category and sorting the categories by quantity •answer questions about totalling and comparing categorical data. 	<ul style="list-style-type: none"> •Interpret and present data using bar charts, pictograms and tables, <i>understanding and using simple scales e.g. 2, 5, 10 units per cm with increasing accuracy.</i> •Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables. •Interpret data presented in many contexts