



Mathematics Long Term Plan – Lower Key Stage 2

Year 3

Year 3	Autumn	Spring	Summer
NUMBER			
Number and place value	<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 <i>e.g. 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. 	<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> ● <i>Apply partitioning related to place value using varied and increasingly complex problems</i> ● Read and write numbers to at least 1000 in numerals and in words <i>e.g. three hundred and forty-six</i> ● Compare and order numbers up to 1000 ● Solve number problems and practical problems involving place value and rounding 	<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> ● <i>Apply partitioning related to place value using varied and increasingly complex problems</i> ● 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



Mathematics Long Term Plan – Lower Key Stage 2

Addition and subtraction	<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 <i>e.g. 858 – 300</i>○ <i>two-digit numbers where the answer could exceed 100 e.g. 99+18</i>• Add and subtract numbers with up to three digits• Estimate the answer to a calculation and use inverse operations to check answers <i>e.g. 702 – 249 is approximately 700 – 250 = 450; check 453 + 249 = 702</i>• Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction <i>e.g. investigate the numbers which could go in the boxes when</i> $2 \times \square 7 + \square$	<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 <i>e.g. 476 + 50</i>○ a three-digit number and hundreds.○ <i>two-digit numbers where the answer could exceed 100</i>• 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 <i>e.g. There are 46 boys and 58 girls in Year 3, but 12 children are away; how many Year 3 children are at school?</i>	<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 <i>e.g. 824 – 30</i>○ a three-digit number and hundreds○ <i>two-digit numbers where the answer could exceed 100 e.g. 68+47</i>• 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 <i>e.g. investigate the numbers which could go in the boxes when</i> <table border="1" data-bbox="1646 1093 2161 1157"><tr><td> </td><td>3</td><td>=</td><td>2</td><td> </td><td> </td><td>6</td></tr></table>		3	=	2			6
	3	=	2			6				



Mathematics Long Term Plan – Lower Key Stage 2

<p>Multiplication and division</p>	<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 3 and 4 multiplication tables 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 $20 = 60 \div 3$ 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 Solve problems, including missing number problems, involving multiplication and division e.g. $90 = 3 \times$ <input type="text"/> 	<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. $240 =$ <input type="text"/> \times <input type="text"/> 4 	<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.
---	---	---	--



Mathematics Long Term Plan – Lower Key Stage 2

Fractions	<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. $\frac{1}{2} = \frac{3}{6}$ <div data-bbox="651 986 819 1094" data-label="Diagram"> </div> <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? 	<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. $\frac{7}{10} = 0.7$ 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 	<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 and decimal measures (not restricted to decimals between 0 and 1) and to division by 10 e.g. $\frac{13}{10} = 1.3$ Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators e.g. find $\frac{4}{5}$ of 30 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 Add and subtract fractions with the same denominator within one whole e.g. If $\frac{1}{3}$ of a cake is eaten then $\frac{2}{3}$ remains or $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ Compare and order unit fractions, and fractions with the same denominators e.g. put in order $\frac{1}{2}, \frac{1}{8}, \frac{1}{4}, \frac{1}{6}$
-----------	--	--	--



Mathematics Long Term Plan – Lower Key Stage 2

			<ul style="list-style-type: none"> Solve problems that involve fractions e.g. Ali, Ben and Cara have 24 fish. $\frac{2}{3}$ of them belong to Ali, $\frac{1}{4}$ belong to Ben and the rest belong to Cara; how many fish belong to Cara?
MEASUREMENT			
Measurement	<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: 6½cm or 62mm? 5m or 450cm? Measure and draw lines to the nearest ½ 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. 	<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 1½kg? 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. 	<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,



Mathematics Long Term Plan – Lower Key Stage 2

		<ul style="list-style-type: none"> Know the number of seconds in a minute and the number of days in each month, year and leap year 	<p>afternoon, noon and midnight</p> <ul style="list-style-type: none"> 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
GEOMETRY			
Properties of shapes	<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 <i>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)</i> 	<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 <i>e.g. sort triangles into those with an obtuse angle and those without</i> 	<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



Mathematics Long Term Plan – Lower Key Stage 2

STATISTICS			
Use and interpret 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> 	<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> 	<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>



Mathematics Long Term Plan – Lower Key Stage 2

Year 4			
Year 4	Autumn	Spring	Summer
NUMBER			
Number and place value	<ul style="list-style-type: none"> • Count in multiples of 6, 9, 25 and 1000 <i>e.g. 625, 600, 575, 550, 525, 500, ...</i> • Find 1000 more or less than a given number <i>e.g. 45 + 1000, 8904 – 1000</i> • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • Order and compare numbers beyond 1000 • Identify, represent and estimate numbers using different representations <i>including measures and measuring instruments</i> • Round any number to the nearest 10 or 100 • Solve number and practical problems that involve place value and rounding and with increasingly large positive numbers 	<ul style="list-style-type: none"> • Count in multiples of 6, 7, 9, 25 and 1000 • Find 1000 more or less than a given number • Count backwards through zero to include negative numbers <i>e.g. 8, 6, 4, 2, 0, -2, -4, -6, ...</i> • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • Order and compare numbers beyond 1000 • Identify, represent and estimate numbers using different representations <i>including measures and measuring instruments</i> • Round any number to the nearest 10 or 100 • Solve number and practical problems that involve place value and rounding and with increasingly large positive numbers 	<ul style="list-style-type: none"> • Count in multiples of 6, 7, 9, 25 and 1000 • Find 1000 more or less than a given number • Count backwards through zero to include negative numbers • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • Order and compare numbers beyond 1000 • Identify, represent and estimate numbers using different representations <i>including measures and measuring instruments</i> • Round any number to the nearest 10, 100 or 1000 • Solve number and practical problems that involve place value and rounding and with increasingly large positive numbers • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. <i>e.g. 49 = XLIX</i>



Mathematics Long Term Plan – Lower Key Stage 2

<p>Addition and subtraction</p>	<ul style="list-style-type: none"> • Use both mental and written methods with increasingly large numbers to aid fluency e.g. mentally calculate $540 + 400$ or $900 - 360$ • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • Estimate and use inverse operations to check answers to a calculation e.g. $8702 - 499$ is approximately $9000 - 500 = 8500$; check $8203 + 499 = 8702$ • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why e.g. It costs £3.50 for Ben to go swimming and £5:70 for his mum; how much change is there from £10? 	<ul style="list-style-type: none"> • Use both mental and written methods with increasingly large numbers to aid fluency • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • Estimate and use inverse operations to check answers to a calculation • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why e.g. investigate which amounts of money cannot be made using exactly three coins. 	<ul style="list-style-type: none"> • Use both mental and written methods with increasingly large numbers to aid fluency e.g. mentally calculate $540 + 270$ or $900 - 365$ • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • Estimate and use inverse operations to check answers to a calculation • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why e.g. Mr Smith sets out on a 619 mile journey; he drives 320 miles before lunch and 185 miles after lunch; how much farther does he need to drive?
<p>Multiplication and division</p>	<ul style="list-style-type: none"> • Recall multiplication and division facts for multiplication tables up to 10×10 • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers e.g. $600 \div 3 = 200$; $4 \times 6 \times 2$ • Multiply two-digit and three-digit numbers by a one-digit number using formal written layout (see appendix) • solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit e.g. $34 \times 6 = (30 \times 6) + (4 \times 6)$, integer 	<ul style="list-style-type: none"> • Recall multiplication and division facts for multiplication tables up to 12×12 • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers e.g. $420 = 70 \times 6$; $5 \times 4 \times 9$ • Recognise and use factor pairs and commutativity in mental calculations e.g. factor pairs of 20 are 1 and 20, 2 and 10, 4 and 5; addition and multiplication are commutative e.g. $2 \times 6 \times 5 = 2 \times 5 \times 6 = 10 \times 6$ • Multiply two-digit and three-digit numbers by a one-digit number using 	<ul style="list-style-type: none"> • recall multiplication and division facts for multiplication tables up to 12×12 • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers e.g. $640 \div 8 = 80$; $4 \times 6 \times 20$ • recognise and use factor pairs and commutativity in mental calculations • Multiply two-digit and three-digit numbers by a one-digit number using formal written layout • Use the formal written method for short division with exact answers when



Mathematics Long Term Plan – Lower Key Stage 2

	<p>scaling problems and harder correspondence problems such as n objects are connected to m objects e.g. 3 skirts and 4 tops, how many different outfits?</p>	<p>formal written layout</p> <ul style="list-style-type: none"> Use the formal written method for short division with exact answers when dividing by a one-digit number e.g. $456 \div 3$ Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit e.g. $34 \times 6 = (30 \times 6) + (4 \times 6)$, integer scaling problems and harder correspondence problems such as n objects are connected to m objects e.g. the number of different choices on a menu 	<p>dividing by a one-digit number e.g. $736 \div 8$</p> <ul style="list-style-type: none"> Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit e.g. $34 \times 6 = (30 \times 6) + (4 \times 6)$, integer scaling problems and harder correspondence problems such as n objects are connected to m objects e.g. 3 cakes shared equally between 10 children.
<p>Fractions (including decimals)</p>	<ul style="list-style-type: none"> Know that decimals and fractions are different ways of expressing proportions Recognise and show, using diagrams, families of common equivalent fractions Count using simple fractions and decimal fractions, both forwards and backwards e.g. $4\frac{1}{3}, 4\frac{2}{3}, 5, 5\frac{1}{3}, 5\frac{2}{3}, 6, 6\frac{1}{3}$; 3.2, 3.1, 3, 2.9, 2.8, ... and represent fractions and decimals on a number line Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten e.g. $\frac{3}{10} = \frac{30}{100} = 0.30 = 0.3$ Identify, name and write equivalent fractions of a given fraction, including tenths and hundredths e.g. $\frac{6}{9} = \frac{2}{3}$ 	<ul style="list-style-type: none"> Know that decimals and fractions are different ways of expressing proportions Recognise and show, using diagrams, families of common equivalent fractions Count using simple fractions and decimal fractions, both forwards and backwards and represent fractions and decimals on a number line Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten Identify, name and write equivalent fractions of a given fraction, including tenths and hundredths Solve problems to calculate quantities, and fractions to divide quantities, 	<ul style="list-style-type: none"> Know that decimals and fractions are different ways of expressing proportions Recognise and show, using diagrams, families of common equivalent fractions Count using simple fractions and decimal fractions, both forwards and backwards and represent fractions and decimals on a number line Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten Identify, name and write equivalent fractions of a given fraction, including tenths and hundredths Add and subtract fractions with the same denominator e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5}$



Mathematics Long Term Plan – Lower Key Stage 2

	<ul style="list-style-type: none"> • Solve problems to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number <i>e.g. find $\frac{4}{9}$ of 18 counters</i> • Recognise and write decimal equivalents of any number of tenths or hundredths <i>e.g. $\frac{9}{10} = 0.9$; $\frac{9}{100} = 0.09$</i> • Recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ • 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 units, tenths and hundredths 	<p>including non-unit fractions where the answer is a whole number <i>e.g. What fraction of a day is 3 hours?</i></p> <ul style="list-style-type: none"> • Recognise and write decimal equivalents of any number of tenths or hundredths • Recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ • 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 units, tenths and hundredths • Round decimals with one decimal place to the nearest whole number <i>e.g. 32.5 rounds to 33; 49.7 rounds to 50</i> • Compare numbers with the same number of decimal places up to two decimal places <i>e.g. put in order: 2.56, 26.52, 2.65, 25.62, 2.62</i> • Solve simple measure and money problems involving fractions and decimals to two decimal places. <i>e.g. two parcels weigh 5.5kg altogether, one weighs 3.8kg, what is the mass of the other?</i> 	<ul style="list-style-type: none"> • 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 <i>e.g. $\frac{1}{5}$ of 9 is 9</i> • Recognise and write decimal equivalents of any number of tenths or hundredths • Recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ • 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 units, tenths and hundredths • Round decimals with one decimal place to the nearest whole number • Compare numbers with the same number of decimal places up to two decimal places • Solve simple measure and money problems involving fractions and decimals to two decimal places <i>e.g. Ben buys a toy costing £4.55 and $\frac{1}{4}$ kg of sweets costing £3.20 per kilo; how much change does he receive from £10?</i>
--	--	---	--



Mathematics Long Term Plan – Lower Key Stage 2

MEASUREMENT			
Measurement	<ul style="list-style-type: none"> • Convert between different units of measure (e.g. kilometre to metre; hour to minute) e.g. $4\frac{1}{2}\text{kg} = 4500\text{g}$; • Estimate, compare and calculate different measures, including money in pounds and pence e.g. put in order: £1.20, 98p, £0.89, £1.08 	<ul style="list-style-type: none"> • Convert between different units of measure (e.g. kilometre to metre; hour to minute) e.g. $90\text{ minutes} = 1\frac{1}{2}\text{ hours}$ • Estimate, compare and calculate different measures, including money in pounds and pence • Read, write and convert time between analogue and digital 12 and 24-hour clocks e.g. $\frac{1}{4}$ to 8 in the evening can be written as 19:45 • Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. e.g. which of these children are 3 years old: <ul style="list-style-type: none"> ○ Isabel 39 months ○ Ben 32 months ○ Cara 50 months ○ Dylan 42 months 	<ul style="list-style-type: none"> • Convert between different units of measure (e.g. kilometre to metre; hour to minute) • Estimate, compare and calculate different measures, including money in pounds and pence e.g. put in order: 4.2kg, 4700g, $4\frac{1}{2}\text{kg}$, 490g • Read, write and convert time between analogue and digital 12 and 24-hour clocks • Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres e.g. find the perimeter of an L-shape where the lengths are given or can be measured • Find the area of rectilinear shapes by counting squares e.g. find the area of an L-shape drawn on squared paper



Mathematics Long Term Plan – Lower Key Stage 2

GEOMETRY			
Properties of shapes	<ul style="list-style-type: none"> • Compare and classify geometric shapes, including quadrilaterals (<i>e.g. parallelogram, rhombus, trapezium</i>) and triangles (<i>e.g. isosceles, equilateral, scalene</i>), based on their properties and sizes <i>e.g. sort triangles to find those that are isosceles and/or have a right angle</i> • Complete a simple symmetric figure with respect to a specific line of symmetry 	<ul style="list-style-type: none"> • Compare and classify geometric shapes, including quadrilaterals (<i>e.g. parallelogram, rhombus, trapezium</i>) and triangles (<i>e.g. isosceles, equilateral, scalene</i>), based on their properties and sizes <i>e.g. sort quadrilaterals to find those with line symmetry or parallel edges</i> • Complete a simple symmetric figure with respect to a specific line of symmetry • Identify acute and obtuse angles and compare and order angles up to two right angles by size, <i>without using a protractor</i> 	<ul style="list-style-type: none"> • Compare and classify geometric shapes, including quadrilaterals (<i>e.g. parallelogram, rhombus, trapezium</i>) and triangles (<i>e.g. isosceles, equilateral, scalene</i>), based on their properties and sizes • Complete a simple symmetric figure with respect to a specific line of symmetry. • Identify acute and obtuse angles and compare and order angles up to two right angles by size, <i>without using a protractor</i> • <i>Compare lengths and angles to decide if a polygon is regular or irregular. e.g. regular polygons have edges with the same lengths and angles all the same size e.g. a square is the only regular quadrilateral</i> • Identify lines of symmetry in 2-D shapes presented in different orientations
Position and direction	<ul style="list-style-type: none"> • Describe positions on a 2-D grid as coordinates in the first quadrant • Plot specified points and draw sides to complete a given polygon. <i>e.g. find the coordinates of the missing vertex of a shape.</i> 	<ul style="list-style-type: none"> • Describe positions on a 2-D grid as coordinates in the first quadrant • Plot specified points and draw sides to complete a given polygon. • Describe movements between positions as translations of a given unit to the left/right and up/down 	<ul style="list-style-type: none"> • describe positions on a 2-D grid as coordinates in the first quadrant • Plot specified points and draw sides to complete a given polygon. • Describe movements between positions as translations of a given unit to the left/right and up/down



Mathematics Long Term Plan – Lower Key Stage 2

STATISTICS			
<p>Use and interpret data</p>	<ul style="list-style-type: none"> • Interpret and present discrete data using appropriate graphical methods, including bar charts, <i>using a greater range of scales</i> • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs 	<ul style="list-style-type: none"> • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs, <i>using a greater range of scales e.g. height of a sunflower plant, measured daily for 2 weeks</i> • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs 	<ul style="list-style-type: none"> • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs, <i>using a greater range of scales</i> • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs