



*Fairway Primary
School*

Maths Long Term Planning

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≈ *Responsible* ≈ *Ambitious* ≈ *Individual* ≈ *Explorers* ≈



Fairway Primary School

Maths Long Term Planning

EXPLORE ---KNOW---COMMUNICATE

CONCEPTS

FLUENCY

This concept ensures children to become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

PROBLEM SOLVING

This concept ensures children to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

REASONING

This concept ensures children can **solve problems** by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

PURPOSE OF STUDY KS1 AND KS2

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

AIMS

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

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. **Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.**

YEAR 1 MATHS LONG TERM PLAN

CONTINUOUS OBJECTIVES

- Count to and across 100 forwards.
- Count to and across 100 backwards.
- Count, read and write numbers to 100 in numerals.
- Count in multiples of twos, fives and tens.
- Identify one more and one less than a given number.
- Write numbers to 20 in words.
- Represent and use number bonds and related subtraction facts within 20.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1	Number and Place Value Count to and across 20, forwards and backwards, beginning with 0 or 1, or from any given number. Count in multiples of twos (including language of odd and even) Count, read and write numbers to 10 in numerals Given a number, identify one more and one less 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 Read numbers from 1 to 20 in numerals and words. Write numbers from 1 to 10 in words.	Addition and Subtraction Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs Represent and use number bonds and related subtraction facts within 20. Add and subtract one-digit and two-digit numbers to 20, including zero. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$.	Geometry: Properties of Shapes 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]. Geometry: Position and Direction Describe position, direction and movement, including whole, half, quarter and three-quarter turns	Measurement Measure and begin to record the following: -lengths and heights Compare, describe and solve practical problems for: -lengths and heights	ASSESSMENT and MISCONCEPTION WEEK	Number and Place Value Count to and across 50, forwards and backwards, beginning with 0 or 1, or from any given number. Count in multiples of twos and fives Count, read and write numbers to 20 in numerals. Given a number, identify one more and one less 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		

								Read and write numbers from 1 to 20 in numerals and words.
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 2	Number and Place Value Count to and across 50, forwards and backwards, beginning with 0 or 1, or from any given number. Count in multiples of twos and fives Count, read and write numbers to 20 in numerals. Given a number, identify one more and one less	Addition and Subtraction Represent and use number bonds and related subtraction facts within 20. Add and subtract one digit and two digit numbers to 20, including zero. Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9	Fractions Recognise, find and name a half as one of two equal parts of an object, shape or quantity	Measurement Measure and begin to record the following: - Time (hours, minutes, seconds) Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] Recognise and use language relating to dates, including days of		ASSESSMENT and MISCONCEPTION WEEK	Measurement Measure and begin to record the following: - Time (hours, minutes, seconds) Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	

	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 Read and write numbers from 1 to 20 in numerals and words.				the week, weeks, months and years Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Compare, describe and solve practical problems for: time		Recognise and use language relating to dates, including days of the week, weeks, months and years Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Compare, describe and solve practical problems for: time	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 1	Number and Place Value Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count in multiples of twos and fives and tens Count, read and write numbers to 20 in numerals Given a number, identify one more and one less 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 Read and write numbers from 1 to 20 in numerals and words.		Addition and Subtraction Represent and use number bonds and related subtraction facts within 20. Add and subtract one digit and two digit numbers to 20, including zero. Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$		ASSESSMENT and MISCONCEPTION WEEK	Fractions Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 2	Measurement Recognise and know the value of different denominations of coins and notes. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.		Multiplication Solve one-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher, including doubling .	ASSESSMENT and MISCONCEPTION WEEK	Division Solve one-step problems involving division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Summer 1	Geometry: Properties of Shapes 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]. Geometry: Position and Direction Describe position, direction and movement, including whole, half, quarter and three-quarter turns.	Measurement Measure and begin to record the following: -mass/weight - capacity and volume Compare, describe and solve practical problems for: -mass/weight -capacity/volume	Multiplication and Division 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.		ASSESSMENT and MISCONCEPTION WEEK	Fractions Recognise, find and name a half as one of two equal parts of an object, shape or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Teachers will use Summer 1 Assessment Data to inform their planning for the final half term of the year. Teaching will aim to plug any remaining gaps in maths learning and ensure that the children remember key facts and vocab in order to effectively transition into the following year group's maths curriculum.							
Summer 2								

YEAR 2 MATHS LONG TERM PLAN

CONTINUOUS OBJECTIVES

- Count in steps of 2, 3 and 5 from 0 forwards.
- Count in steps of 2, 3 and 5 backwards.
- Count in tens from any given number forwards.
- Count in tens from any given number backwards.
- Recognise the place value of each digit in a two-digit number (tens, ones)
- Compare and order numbers from 0 up to 100 using $<$ $>$ and $=$ signs
- Read and write numbers to at least 100 in numbers and words.
- Recall addition facts to 20 fluently.
- Recall subtraction facts to 20 fluently.
- Recall multiplication facts for the 2, 5 and 10 multiplication tables.
- Recall division facts for the 2, 5 and 10 multiplication tables.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1	Number and Place Value Count forward and backwards in steps of 2, 3, and 5 from 0, and in tens from any number. 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 Compare and order numbers from 0 up to 100; use < > and = signs Read and write numbers to at least 100 in numerals and in words. Use place value and number facts to solve problems.	Addition and Subtraction Recall and use addition and subtraction facts to 20 fluently. Derive and use related facts up to 100 Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens -two two-digit numbers -adding three one-digit numbers Solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Measurement Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) using rulers and mass (kg/g) using scales. Compare and order lengths; mass and record the results using >, < and =	Geometry: properties of Shapes Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] Compare and sort common 2-D and 3-D shapes and everyday objects.	ASSESSMENT and MISCONCEPTION WEEK	Statistics Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data.		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 2	Fractions 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. Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.		Multiplication and Division 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 ($\times$), 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. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.		Measurement Compare and sequence intervals of time. Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times Know the number of minutes in an hour and the number of hours in a day	ASSESSMENT and MISCONCEPTION WEEK	Measurement Compare and sequence intervals of time. Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times Know the number of minutes in an hour and the number of hours in a day	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 1	Addition and Subtraction -Recall and use addition and subtraction facts to 20 fluently. -Derive and use related facts up to 100 Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens -two two-digit numbers -adding three one-digit numbers Solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.		Measurement Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value Find different combinations of coins that equal the same amounts of money Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change		ASSESSMENT and MISCONCEPTION WEEK	Fractions 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. Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 2	Multiplication and Division 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 ($\times$), 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. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.		Geometry: Position and Direction Order and arrange combinations of mathematical objects in patterns and sequences. Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).	ASSESSMENT AND MISCONCEPTIONS WEEK	Measurement Compare and sequence intervals of time. Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times Know the number of minutes in an hour and the number of hours in a day.			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	
Summer 1	All 4 operations (including money)		KS1 SATS	Geometry: properties of Shapes Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] Compare and sort common 2-D and 3-D	Measurement Choose and use appropriate standard units to estimate and measure temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using thermometers and measuring vessels. Compare and order volume/capacity and record the results using $>$, $<$ and $=$			

			shapes and everyday objects.				
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
	Teachers will use Summer 1 Assessment Data to inform their planning for the final half term of the year. Teaching will aim to plug any remaining gaps in maths learning and ensure that the children remember key facts and vocab in order to effectively transition into the following year group's maths curriculum.						
Summer 2							

YEAR 3

CONTINUOUS OBJECTIVES:

- Count from 0 in multiples of 4, 8, 50 and 100.
- Find 10 more or less than a given number.
- Find 100 more or less than a given number.
- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- Compare and order numbers up to 1000 using < > signs.
- Read and write numbers up to 1000 in numerals and words.
- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
- Read time with increasing accuracy to the nearest minute

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1	Place Value and Number 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) Compare and order numbers up to 1000. Identify, represent and estimate numbers using different representations Read and write numbers up to 1000 in numerals and in words Solve number problems and practical problems involving these ideas.	Addition and Subtraction Mental Calculation with Jottings Add and subtract numbers mentally, including: - a three-digit number and ones 356 + 6= 455-7= - a three-digit number and tens 356+20= 455-70= -a three-digit number and hundreds 356+400= 677-300= Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems,	Addition and Subtraction Formal Methods Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	Measurement Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24 hour clocks Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight			ASSESSMENT and MISCONCEPTION WEEK	Statistics Interpret and present data using <u>pictograms and tables</u> Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in pictograms and tables

		using number facts, place value, and more complex addition and subtraction.				
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	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 2	Fractions Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators, Recognise and show, using diagrams, equivalent fractions with small denominators Solve problems that involve all of the above.		Multiplication and Division Mental calculation with jottings Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. 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 calculation methods and jottings. Solve problems, including missing number problems, involving multiplication and division, including positive integer	Multiplication and Division Formal methods of calculation	Geometry: Properties of Shapes Recognise angles as a property of shape or a description of a 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. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines .	ASSESSMENT and MISCONCEPTION WEEK	Measurement Know the number of seconds in a minute and the number of days in each month, year and leap year,	

		scaling problems and correspondence problems in which n objects are connected to m objects.					
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	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 1	Addition and Subtraction Mental Calculation with Jottings Addition and Subtraction Formal Methods Measurement Add and subtract amounts of money to give change, using both £ and p in practical contexts		Measurement Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) .	Geometry: Properties of Shapes Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	ASSESSMENT and MISCONCEPTION WEEK	Fractions Add and subtract fractions with the same denominator within one whole [for example, $\frac{7}{5} + \frac{7}{1} = \frac{7}{6}$] Compare and order unit fractions, and fractions with the same denominators Solve problems that involve all of the above		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 2	Fractions Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators, Recognise and show, using diagrams, equivalent fractions with small denominators Solve problems that involve all of the above.	Multiplication and Division Mental Calculation with Jottings	Multiplication and Division Formal calculation	ASSESSMENT and MISCONCEPTION WEEK	Statistics Interpret and present data using <u>bar charts and pictograms</u>. Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms.			

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Summer 1	Measurement 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,	Measurement Measure the perimeter of simple 2-D shapes. 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. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	All 4 operations	Fractions Add and subtract fractions with the same denominator within one whole [for example, $\frac{7}{5} + \frac{7}{1} = \frac{7}{6}$] Compare and order unit fractions, and fractions with the same denominators Solve problems that involve all of the above	ASSESSMENT and MISCONCEPTION WEEK	Statistics Interpret and present data using tables and bar charts. Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts tables.		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Teachers will use Summer 1 Assessment Data to inform their planning for the final half term of the year. Teaching will aim to plug any remaining gaps in maths learning and ensure that the children remember key facts and vocab in order to effectively transition into the following year group's maths curriculum.							
Summer 2								

YEAR 4

CONTINUOUS OBJECTIVE

- 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 four-digit numbers (thousands, hundreds, tens and ones)
- Order and compare numbers beyond 1000 using < and >
- Round any number to the nearest 10, 100 or 1000 (4 digit numbers)
- Read Roman numeral to 100.
- Recall multiplication and division facts for multiplication tables up to 12 x12

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1	Place Value Count in multiples of 6,7,9,25 and 1000. Find 1000 more or less than a given number. Recognise the place value of each digit in a 4- digit number (thousands, hundreds, tens and ones) Order and compare numbers beyond 1000. Identify, represent and estimate numbers using different representations. Round any number to the nearest 10, 100 or 1000 Solve number and practical problems that involve all of the above with increasingly large positive numbers.		Addition and Subtraction Mental Calculation with Jottings Please refer to calculation policy.	Addition and Subtraction Formal Methods Add and subtract numbers with up to 4 digits using formal written methods. Estimate and use inverse operations to check answers to a calculation. Solve addition and subtraction 2 step problems deciding which operations and methods to use and why.	Geometry: Properties of Shapes Compare and classify geometric shapes, including quadrilaterals and triangles based on their properties and sizes. Measurement Find the area of rectilinear shapes by counting squares. Measure and calculate the perimeter of a rectilinear figure (including squares)	Measurement Convert between different units of measure. km to m kg to g L to M Estimate, compare and calculate different measures.	ASSESSMENT and MISCONCEPTION WEEK	Statistics Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 2	Fractions Recognise and show, using diagrams, families of common equivalent fractions. Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Add and subtract fractions with the same denominator.		Multiplication and Division Mental calculation with jottings Recognise and use factor pairs and commutativity in mental calculations. Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1	Multiplication and Division Formal methods of calculation Multiply 2-digit and 3-digit numbers by 1 digit number using formal written method Multiplying together 3 numbers Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	Place Value Count backwards through zero to include negative numbers Solve number and practical problems that involve negative numbers.	ASSESSMENT and MISCONCEPTION WEEK	Place Value Read Roman numerals to 100 (I to C) and understand that over time the numeral system changes to include the concept of zero and place value.	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 1	Addition and Subtraction Mental Calculation with Jottings Addition and Subtraction Formal Methods Revise Mental addition and subtraction methods. Add and subtract numbers with up to 4 digits using formal written methods. Estimate and use inverse operations to check answers to a calculation.	Measurement Read, write and convert time between analogue and digital 12- and 24 hour clocks		Geometry: position and Direction Describe positions on a 2D grid as coordinates in the first quadrant. Plot specified points and draw sides to complete a given polygon. Describe movements between positions as translations of a given unit to the left/right and up/down	ASSESSMENT and MISCONCEPTION WEEK	Fractions Recognise and write decimal equivalents of any number of tenths and hundredths Recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$		

	Solve addition and subtraction 2 step problems deciding which operations and methods to use and why. Measurement Estimate, compare and calculate different measures, including money in pounds and pence							
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 2	Fractions Round decimals with one decimal place to the nearest whole number. Compare numbers with the same number of decimal places up to 2 decimal places Solve simple measure and money problems involving fractions and decimals to 2 decimal places.	Multiplication and Division Mental Calculation with Jottings Find the effect of dividing a 1 or 2-digit number by 10 and 100, identifying the value of the digits as ones, tenths and hundredths. Recognise and use factor pairs and commutativity in mental calculations.	Multiplication and Division Formal calculation Multiply 2-digit and 3-digit numbers by 1 digit number using formal written method Multiplying together 3 numbers Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	ASSESSMENT and MISCONCEPTION WEEK	Statistics Interpret and present data using appropriate graphical methods, including -bar charts -time graphs			

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Summer 1	Fractions Calculate fractions of quantities, including non-unit fractions. Solve simple measure and money problems involving fractions and decimals to 2 decimal places.	Geometry: Properties of Shape . Identify lines of symmetry in 2D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry. Describe movements between positions as translations of a given unit to the left/right and up/down	Measurement Convert between different units of measure. TIME Solve problems involving converting from hours to mins, mins to seconds, years to months and weeks to days.		ASSESSMENT and MISCONCEPTION WEEK	Multiplication Revision in final preparation for Multiplication Times Table Check		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Teachers will use Summer 1 Assessment Data to inform their planning for the final half term of the year. Teaching will aim to plug any remaining gaps in maths learning and ensure that the children remember key facts and vocab in order to effectively transition into the following year group's maths curriculum.							
Summer 2	Y4 Multiplication and Times Table Check		As Link forward to year 5: Divide 2 digit and 3 digit numbers by a single digit using short division method.					

YEAR 5

CONTINUOUS OBJECTIVE

- Read and write numbers to at least 1,000,000
- Order and compare numbers to at least 1,000,000 using $<$ $>$
- Determine the value of each digit in umbers to at least 1,000,000
- Count forwards or backwards in steps of powers of 10 for any given number up to 1, 000, 000
- Count forwards and backwards with positive and negative whole numbers, including through zero.
- Round any number up to 1,000,000,000 to the nearest 10, 100, 1000, 10,000 and 100.000
- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- Read roman numerals to 1000.
- Find all factor pairs for a number and common factors of 2 numbers.
- Establish whether a number up to 100 is prime and recall prime numbers up to 19
- Recognise and use square numbers and the notation for squared (2) and cube numbers, and the notation cubed (3)
- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1	Place value Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. Solve number problems and practical problems that involve all of the above	Addition and Subtraction- Mental calculation with jottings Add and subtract numbers mentally with increasingly large numbers Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy Solve addition and subtraction multi-step problems in contexts, deciding which operations	Addition and Subtraction- Formal calculation Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy Solve addition and subtraction multi-step problems in contexts, deciding	Measurement Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	Geometry: Properties of Shape 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° • use the properties of rectangles to deduce related facts and find missing lengths and angles	ASSESSMENT and MISCONCEPTION WEEK	Statistics Solve comparison, sum and difference problems using information presented in a line graph Complete, read and interpret information in tables.	

			and methods to use and why.	which operations and methods to use and why.		distinguish between regular and irregular polygons based on reasoning about equal sides and angles Distinguish between regular and irregular polygons based on reasoning about equal sides and angles		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 2	Fractions Compare and order fractions whose denominators are all multiples of the same number. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths, Add and subtract fractions with the same denominator and denominators that are multiples of the same number		Multiplication and Division Mental calculation with jottings Multiply and divide numbers mentally drawing upon known facts. Identify multiples and factors, including all factor pairs of a number, and common factors of 2 numbers. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime numbers). Establish whether a number up to 100 is prime and recall prime numbers up to 19. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Multiplication and Division Formal methods of calculation Multiply numbers up to 4 digits by a one- digit number using a formal written method. (short multiplication) Divide numbers up to 4 digits by a one-digit number using the formal written method of short division	Place Value Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	ASSESSMENT and MISCONCEPTION WEEK	Geometry: Properties of shape Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 1	Multiplication and Division Mental Calculation with Jottings Recognise and use square numbers and the notation for squared (2) and cube numbers, and the notation cubed (3) Multiplication and Division Formal calculation Multiply numbers up to 4 digits by a two-digit number using a formal written method, (long multiplication) Divide numbers up to 4 digits by a one-digit number using the formal written method of short division Interpret remainders appropriately for the context Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.		Measurement Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes,	Geometry: Position and Direction Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Draw given angles, and measure them in degrees (o) Identify: - angles at a point and one whole turn (total 360o) - angles at a point on a straight line and 2 1 a turn (total 180o) - other multiples of 90o	ASSESSMENT and MISCONCEPTION WEEK	Fractions Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5= 5/6 = 1 AND 1/5]. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 2	Fractions (decimals) Read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$] Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Round decimals with two decimal places to the nearest whole number and to one decimal place Read, write, order and compare numbers with up to three decimal places Solve problems involving number up to three decimal places		Statistics Complete, read and interpret information in timetables . Measurement Solve problems involving converting between units of time	ASSESSMENT and MISCONCEPTION WEEK	All 4 operations Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates			

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Summer 1	Measurement Estimate volume [for example, using 1 cm ³ blocks to build cuboids (including cubes)] and capacity [for example, using water] Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints,	Geometry: Properties of Shape 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.	Fractions (percentages) Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.	All 4 operations Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	ASSESSMENT and MISCONCEPTION WEEK	Statistics Solve comparison, sum and difference problems using information presented in a line graph Complete, read and interpret information in tables.		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Teachers will use Summer 1 Assessment Data to inform their planning for the final half term of the year. Teaching will aim to plug any remaining gaps in maths learning and ensure that the children remember key facts and vocab in order to effectively transition into the following year group's maths curriculum							
Summer 2								

YEAR 6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 1	Place Value Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero Solve number and practical problems that involve all of the above		Addition and Subtraction- Mental calculation with jottings Perform mental calculations, including with mixed operations and large numbers. Addition and Subtraction- Formal calculation Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Use estimation to check answers to calculations and determine, in the	Multiplication Identify common factors, common multiples and prime numbers. Division Rules of Divisibility 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. context of a problem, an appropriate degree of accuracy.	Measurement 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 three decimal places. Convert between miles and kilometres. Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.	Geometry: properties of Shapes Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. Draw 2D shapes using given dimensions and angles.	SATS ASSESSMENT and MISCONCEPTION WEEK PRACTICE SATS	Geometry: Position and Direction Describe positions on the full coordinate grid (all four quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Autumn 2	Fractions (including decimals and percentages) Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1 Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.		Multiplication and Division including Fractions and Decimals Multiplication and Division- Mental calculation Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places Multiplication-mental calculation Perform mental calculations, including with mixed operations and large numbers. BIDMAS Use their knowledge of the order of operations to carry out calculations involving the four operations. Multiplication- Formal Calculation Multiply multi-digit numbers by a two-digit number using the formal method of long multiplication. Division- Formal Calculation Divide numbers up to 4 digits by a two-digit whole number using a formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.		Measurement Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes. Calculate the area of parallelograms and triangles.	ASSESSMENT and MISCONCEPTION WEEK PRACTISE SATS	Measurement Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3) and extending to other units (for example mm3 and km3)	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 1	Fractions (including decimals and percentages) Recall and use equivalences between simple fractions, decimals and percentages including in different contexts. Solve problems involving the	Fractions (including decimals and percentages) Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy		Fractions Multiply simple pairs of proper fractions, writing the answer in its simplest form (for example $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). Divide proper fractions by whole numbers (for	ASSESSMENT and MISCONCEPTION WEEK PRACTISE SATS	Geometry: Properties of Shapes Recognise, describe and build simple 3-D shapes, including making nets. Compare and classify geometric shapes based on their properties and sizes		

	calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison.		example $1/3 \div 2 = 1/6$ Associate a fraction with division and calculate decimal fraction equivalents (for example, 0.375) for a simple fraction (for example $3/8$).		and find unknown angles in any triangles, quadrilaterals and regular polygons.			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Spring 2	Ratio and Proportion x2 weeks Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.		Algebra Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables.		Statistics Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Interpret and construct pie charts and line graphs and use these to solve problems. Calculate and interpret the mean as an average	ASSESSMENT and MISCONCEPTION WEEK PRACTICE SATS		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Summer 1	Revision Week	Revision Week	SATS ASSESSMENT WEEK					

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Teachers will use Summer 1 Assessment Data to inform their planning for the final half term of the year. Teaching will aim to plug any remaining gaps in maths learning and ensure that the children remember key facts and vocab in order to effectively transition into the KS3 maths curriculum.							
Summer 2								