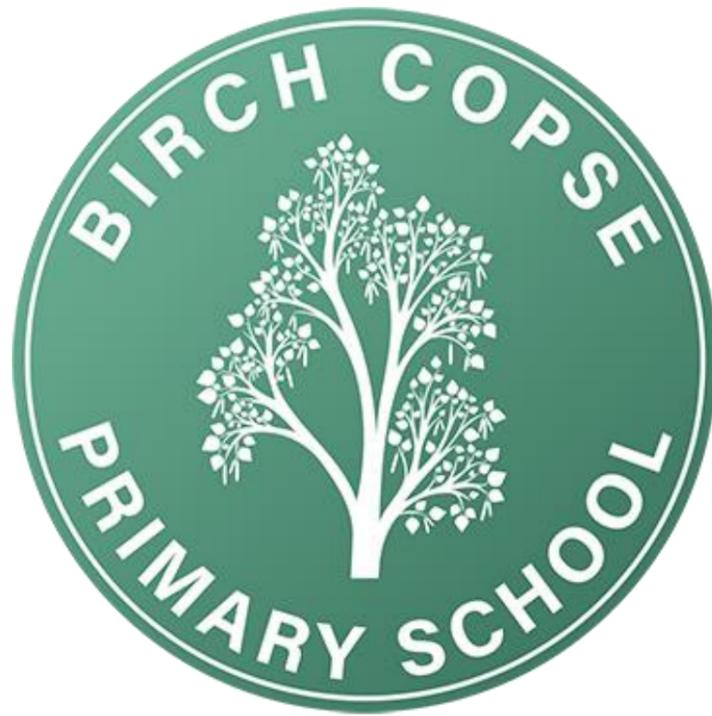


Birch Copse Primary School

Maths

Curriculum Overview



Birch Copse Primary School

Maths

Year R – Yearly Overview



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12+	
Autumn		Number ♣ I can count a group of objects reliably.	Number ♣ I can recognise numbers to 10. ♣ I can count a group of objects reliably	Number ♣ I can recognise numbers to 10, then 20.	Number ♣ I can use the vocabulary of more and less	Number ♣ I can create a pattern	Shape, Space and Measure ♣ I can name 2D shapes ♣ I can describe 2D shapes	Number ♣ I can form numbers correctly	Number ♣ I can add two groups together	Number ♣ I can count objects accurately. ♣ I know one more and one less than a given number.	Number ♣ I can take away, using objects	Consolidation	
Spring	Theme week	Number ♣ I can count to 20, order and find missing numbers	Shape, Space and Measure ♣ I can name and describe solid 3d shapes	Number ♣ I can say one more than a given number. ♣ I can add two numbers together.	Number ♣ I can count backwards to find one less. ♣ I can take away using objects.	Number ♣ I can use 1 st , 2 nd and 3 rd	Number ♣ I can talk about where something is using positional language.	Number ♣ I can use mathematical language to describe and compare the shapes.	Number ♣ I can count objects reliably to 10 and represent correct numeral. ♣ I can count objects reliably to 20	Number ♣ I can double a number	Number ♣ I can share objects equally to find half	Consolidation	
Summer	Number ♣ I can subitise up to 5 ♣ I can find combinations to make a total	Shape, Space and Measure ♣ I can compare objects by height	Number ♣ I can share between 2 ♣ I can share a set of objects equally between more than 2 ♣ I can share a set of objects to solve a problem	Shape, Space and Measure ♣ I can talk about time	Shape, Space and Measure ♣ I can talk about time	Shape, Space and Measure ♣ I can use mathematical language to describe and compare the shapes.	Number ♣ I can order and sequence numbers	Number ♣ I know how to make number bond combinations	Number ♣ I can recognise and use coins	Consolidation	Consolidation	Consolidation	Consolidation

Birch Copse Primary School

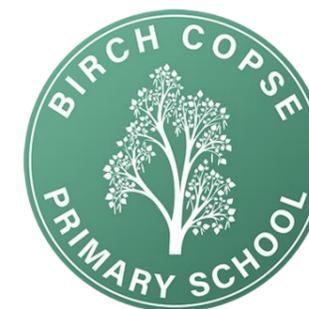
Maths

Year 1 – Yearly Overview



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12+
Autumn		Measure <ul style="list-style-type: none"> I can measure and begin to record the following: mass/weight I can compare, describe and solve practical problems for: mass / weight (e.g. heavy/light, heavier than, lighter than) I can identify and represent numbers using objects and pictures including the number line, and use the language of: equal to, more than, less than (fewer), most, least. 	Geometry: Shape <ul style="list-style-type: none"> I can recognise and name common 2-D and 3-D shapes, including: 2-D shapes [e.g. rectangles (including squares), circles and triangles] I can recognise and name common 2-D and 3-D shapes, including: 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres] 	Number: Place value <ul style="list-style-type: none"> I can count to 100, forwards and backwards, beginning with 0 or 1, or from any given number I can read and write numbers from 1-20 in numerals and words. 	Number: Place value <ul style="list-style-type: none"> I can count to 100, forwards and backwards, beginning with 0 or 1, or from any given number I can read and write numbers from 1-20 in numerals and words. 	Number: Addition and Subtraction <ul style="list-style-type: none"> I can represent and use number bonds and related subtraction facts within 20 I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs I can add and subtract one-digit and two-digit numbers to 20, including zero I can solve one-step problems that involve addition and subtraction, using concrete objects and pictures, and missing number problems (e.g. $7 = \square - 9$) 			Number: Fractions <ul style="list-style-type: none"> I can recognise find and name half as one of two equal parts of an object, shape or quantity. 	Measure: Money <ul style="list-style-type: none"> I can recognise and know the value of different denominations of coins up to 50p I can use coins to make an amount. 	Measure: Time <ul style="list-style-type: none"> I can recognise o'clock and half past on an analogue clock I can tell the time to the hour and half past the hour. I can tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. I can tell the time to the hour and half past the hour. I can use positional language when referring to numbers I can sequence events in chronological order using language such as before after, next, first, today, yesterday and tomorrow. 	
Spring	Theme week	Number: Place value <ul style="list-style-type: none"> I can count in 10s. I can count in 2s. I can count in multiples of twos, tens and fives. I can count in 5s 			Number: Place value <ul style="list-style-type: none"> I can read and write numbers in numerals and words to 20. 	Number: Addition and Subtraction <ul style="list-style-type: none"> I know my number bonds to 10. I can identify one more and one less than a given a number. I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs I can represent and use number bonds and related subtraction facts within 20 I can add and subtract one-digit and two-digit numbers to 20, including zero I can solve one-step problems that involve addition and subtraction, using concrete objects and pictures, and missing number problems 		Geometry <ul style="list-style-type: none"> I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity I can describe a quarter turn and a three-quarters turn 	Number: Place value <ul style="list-style-type: none"> I can identify and represent numbers using objects and pictures. I can count, read and write numbers to 100 in numerals. 	Mixed <ul style="list-style-type: none"> I can recognise, find and name a quarter as one of four equal parts of an amount. Count in multiples of twos, fives and tens 	Consolidation and Assessment	

Covered by PPA staff once per week	Geometry: Position and Direction ♣ I can describe position and direction (on top, next to, behind, below/under, in front of, left, right)							
	Measures ♣ I can order the months of the year.							
Summer	Number: Addition and Multiplication ♣ I can solve multiplication problems with repeated addition. ♣ I can solve one-step problems involving multiplication by calculating the answer using concrete objects, pictures and arrays	Number: Division ♣ I can solve one-step problems involving division, by calculating the answer using concrete objects, pictures and the bar model with the support of the teacher	Measures ♣ I can measure height and length. ♣ I can compare height and length. ♣ I can measure weight. ♣ I can measure weight and begin to record my findings. ♣ I can compare weight. Eg. Heavy/light, heavier than, lighter than. ♣ I can compare and solve practical problems for time. Eg. Quicker, slower, earlier, later. ♣ I can measure and begin to record capacity and volume. ♣ I can compare, describe and solve practical problems for capacity and volume.	Measures: Money ♣ I can recognise and know the value of different denominations of coins and notes	Number: Subtraction + addition ♣ I can add and subtract one-digit and two-digit numbers to 20, including zero	Consolidation	Consolidation	Consolidation



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12+
Autumn	Number: Place Value and addition <ul style="list-style-type: none"> I can read and write numbers to at least 100 in numerals. I can recognise the place value of each digit in a two-digit number (tens, ones) I can counts in tens from any number, forwards and backwards. I can recall and use addition facts. I know number bonds to 10 and then 20. I can recall and use number bonds using the part, part, whole model. I can order and compare numbers from 0 to 100. I can count in steps of 2 and 5s and 10s from 0, forwards and backwards. I can count in steps of 5 and 3 from 0, forwards and backwards. I can compare and order lengths 			Number: Addition and subtraction <ul style="list-style-type: none"> I can add a two-digit number and ones I can add a two-digit number and tens. I can add a two-digit number and a two-digit number. I can subtract a two-digit number and ones I can subtract a two-digit number and tens. I can subtract a two-digit number and a two-digit number. 			Geometry <ul style="list-style-type: none"> I can name 2d shapes and describe them I can identify the properties of 2d shapes including the number of sides. I can find a vertical line of symmetry in regular 2D shapes. 	Number: fractions <ul style="list-style-type: none"> I can recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{3}{4}$ of a shape. I can recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{3}{4}$ of numbers 	Number: Multiplication and division <ul style="list-style-type: none"> I can divide by 2, 5, 3 and 10 I can solve division problems I can multiply by 2, 5, 3 and 10 I can use my knowledge of multiplication to solve problems. I can use repeated addition I can use number bonds to help me add 3 numbers mentally I can solve addition and subtraction questions using drawing 		Statistics <ul style="list-style-type: none"> I can create a pictogram I can create a bar graph 	Measures: Time <ul style="list-style-type: none"> I can tell the time to O' clock and half past I can tell the time to quarter to and quarter past the hour
Covered by PPA staff once per week	Number: Place value, addition and subtraction <ul style="list-style-type: none"> I can partition 2 digit numbers into tens and ones I can use partitioning to add a single digit to a 2-digit number (no crossing of the 10s) I can use partitioning to add a single digit to a 2-digit number (with crossing of the 10s) I can use partitioning to add a 2-digit to a 2-digit number (with crossing of the 10s) I can use partitioning to subtract a single or a 2-digit number from a 2-digit number, without crossing the tens. I can use partitioning to subtract a single digit number from a 2-digit number, with crossing of the tens I can use partitioning to subtract a 2-digit number from a 2-digit number, with crossing of the tens. I can use partitioning to add and subtract a single digit or 2-digit number from a 2-digit number, with and without crossing of the tens. 											
Spring	Theme week	Statistics <ul style="list-style-type: none"> I can interpret and draw simple pictograms, tally charts, block diagrams and simple tables I can ask and answer questions about totalling and comparing categorical data I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity 	Measurement: Money and Time <ul style="list-style-type: none"> I can find different combinations of coins that equal the same amounts of money I can recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value I can solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change I can tell and write the time to quarter past/to the hour and draw the hands on a clock face to show these times. I can tell and write the time to five minutes and draw the hands on a clock face to show these times. I can compare and sequence intervals of time I know the number of minutes in an hour and the number of hours in a day 	Number: Addition and Subtraction <ul style="list-style-type: none"> I can subtract and add a 1 digit number from a 2 digit number I can add and subtract a 2 digit number from a 2 digit number I can add and subtract a 1 digit number from a 2 digit number crossing tens drawing I can solve problems I can add and subtract a 2 digit number from a 2 digit number crossing tens drawing I can use my knowledge to answer reasoning problems I can derive and use related facts up to 100. I can use number bonds to help me add 3 numbers mentally I can mentally add and subtract a two-digit and tens. I can mentally add and subtract a two-digit number and ones. I can mentally add and subtract two two-digit numbers. 			Number: Multiplication and Division <ul style="list-style-type: none"> I can divide by 2, 5, 3 and 10 I can multiply by 2, 5, 3 and 10 I can use my knowledge of multiplication to solve problems. I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems 	Geometry: Shape <ul style="list-style-type: none"> I can identify the properties of 2d shapes including the number of sides. I can identify lines of symmetry. I can identify 3D shapes and name their properties. I can compare 3D shapes. 	Measurement <ul style="list-style-type: none"> I can choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels 	Number: Fractions <ul style="list-style-type: none"> I can recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{3}{4}$ of a shape. I can recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{3}{4}$ of numbers 	Consolidation	

Summer	Number: Addition and Subtraction ♣ I can add a one digit number to a 2 digit number ♣ I can subtract a 2 digit and 2 digit number ♣ I can create a pictogram	Number: Fractions ♣ I know the 2s, 5s and 10 times table ♣ I can work out the fraction of a number $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$ ♣ I can work out the fraction of a number $\frac{2}{3}$, $\frac{2}{4}$ ♣ I can answer reasoning questions relating to fractions	Measure: Scales ♣ Read scales in divisions of ones, twos, fives and tens. ♣ Read scales (on a number line, practical situation or graph axis) where not all the numbers on the scale are given and estimate points in between.	Measure: Money ♣ I can recognise coins ♣ I know the value of 1p and 2ps and can make totals with these amounts ♣ I know the value of 1p, 2p, 5p and 10p and can make totals with these amounts ♣ I can create different amounts using coins ♣ I can find change using notes and coins. ♣ I can use my knowledge of coins to solve these reasoning problems.	Geometry: Position and direction ♣ I can recognise odd and even numbers I can double and halve numbers. ♣ I can use mathematical vocabulary to describe position, direction and movement, including movement in a straight line ♣ I can distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	Number: Addition and Subtraction ♣ I can add mentally I can subtract mentally ♣ I can add and subtract two single digit number using fingers to help where needed. ♣ I can add 2 digit and 2 digit numbers ♣ I can subtract 2 digit and 2 digit numbers ♣ I can add using the column method	Measures: Time ♣ I can tell the time O clock, half past, quarter to and quarter past ♣ I can tell the time to every 5 minutes	Number: Addition and Subtraction ♣ I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems ♣ I can show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot ♣ I can add three one-digit numbers using concrete objects, pictorial representations. ♣ I can recall and use addition and subtraction facts to 20 fluently ♣ I can choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels	Number: Multiplication and Division ♣ I can divide by 2, 5, 3 and 10 ♣ I can multiply by 2, 5, 3 and 10 ♣ I can use my knowledge of multiplication to solve problems. ♣ I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems	Consolidation	Consolidation	Consolidation
---------------	--	--	---	--	---	--	--	---	---	----------------------	----------------------	----------------------

Birch Copse Primary School

Maths

Year 3 – Yearly Overview



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12+
Autumn	Number: Place Value <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) 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 add and subtract numbers mentally solve number problems and practical problems involving these ideas. 			Geometry <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 identify horizontal and vertical lines and pairs of perpendicular and parallel lines. 	Number: Addition <ul style="list-style-type: none"> add numbers with up to three digits, using formal written methods of columnar addition solve problems, including missing number problems, using number facts, place value, and more complex addition 		Statistics <ul style="list-style-type: none"> interpret and present data using bar charts, pictograms and tables solve one-step and two-step questions 	Number: Multiplication <ul style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods 	Number: Subtraction <ul style="list-style-type: none"> subtract numbers mentally, including: <ul style="list-style-type: none"> subtract numbers with up to three digits, using formal written methods of columnar subtraction solve problems, including missing number problems, using number facts, place value, and more complex subtraction. 	Number: Division <ul style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables write and calculate mathematical statements for 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 	Measures: Time <ul style="list-style-type: none"> know the tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks know the number of seconds in a minute and the number of days in each month, year and leap year 	Consolidation
Covered by PPA staff once per week	Measures <ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 			Number: 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 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 compare and order unit fractions, and fractions with the same denominators solve problems that involve all of the above 								

<p style="text-align: center;">Summer</p>	<p>Measures</p> <ul style="list-style-type: none"> ♣ I can 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 ♣ know the number of seconds in a minute and the number of days in each month, year and leap year ♣ compare durations of events [for example to calculate the time taken by particular events or tasks]. 	<p>Number: Place value</p> <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) ♣ 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. 	<p>Number: Addition and subtraction</p> <ul style="list-style-type: none"> ♣ add and subtract numbers mentally ♣ 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 	<p>Number: Multiplication and Division</p> <ul style="list-style-type: none"> ♣ 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 and progressing to formal written methods ♣ solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. 	<p>Statistics</p> <ul style="list-style-type: none"> ♣ interpret and present data using bar charts, pictograms and tables ♣ solve one-step and two-step questions 	<p>Measures</p> <ul style="list-style-type: none"> ♣ 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. ♣ measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 			
	<p>Number: Fractions</p> <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 ♣ recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators ♣ recognise and use fractions as numbers: 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 ♣ compare and order unit fractions, and fractions with the same denominators ♣ solve problems that involve all of the above. 	<p>Measures</p> <ul style="list-style-type: none"> ♣ measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 	<p>Consolidation</p>	<p>Consolidation</p>	<p>Consolidation</p>				

Birch Copse Primary School

Maths

Year 4 – Yearly Overview



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12+
Autumn	Number: Place Value ♣ I can find 1000 more or less than a given number. ♣ I can recognise the place value of each digit in a four-digit number. ♣ I can order and compare numbers beyond 1000. ♣ I can identify, represent and estimate numbers using different representations. ♣ I can round any number to the nearest 10, 100 or 1000		Number: Addition and Subtraction ♣ I can add numbers up to 4 digits using column addition. ♣ I can subtract numbers up to 4 digits using column subtraction. ♣ I can subtract numbers up to 4 digits using column subtraction with stealing. ♣ I can estimate and use inverse operations to check answers to calculations.	Number: Multiplication and Division ♣ I can multiply using the column method. ♣ I can multiply using the distributive law. ♣ I can recognise and use factor pairs. ♣ I can recognise and use factor pairs and commutativity in mental calculations.	Statistics ♣ I can interpret and present discrete and continuous data using bar charts. ♣ I can solve comparison problems using information presented in bar charts and pictograms.	Geometry ♣ I can identify acute and obtuse angles and compare and order angles up to two right angles by size. ♣ I can identify lines of symmetry in 2-D shapes presented in different orientations ♣ I can compare and classify geometric shapes, including quadrilaterals based on their properties and sizes.	Number: Place Value ♣ I can find 1000 more or less than a given number. ♣ I can count backwards through zero to include negative numbers. I can recognise place value of each digit in a four digit number. ♣ I can read Roman numerals to 100. ♣ I can order numbers beyond 1000 ♣ I can compare numbers beyond 1000.	Number: Fractions ♣ I can recognise and show, using diagrams, families of common equivalent fractions. – Lion’s share story lesson using a cake. ♣ I can recognise and show, using diagrams, families of common equivalent fractions. ♣ I can add fractions with the same denominator ♣ I can subtract fractions with the same denominator.	Measure ♣ I can read scales showing length and weight ♣ I can convert measure of lengths.	Number: Four operations ♣ I can use written methods for addition and subtraction. ♣ I can use written methods for multiplication ♣ I can use written methods for division.	Consolidation	Consolidation
Spring	Theme week	Number: Place Value ♣ I can find hundredths by dividing an object by one hundred and tenths by ten. ♣ I can divide one and two digit numbers by 10 and 100. ♣ I can compare numbers with the same number of decimal places (up to two decimal places). ♣ I can recognise and write decimal equivalents of any number of tenths or hundredths.	Number: Fraction ♣ I can recognise and write decimal equivalents $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$. ♣ I can add fractions with the same denominator. ♣ I can subtract fractions with the same denominator. ♣ I can round decimals with one decimal place to the nearest whole. ♣ I can calculate unitary fractions of amounts.	Measure ♣ I can convert between different units of measure (kilometre to metre). ♣ I can read and write time on analogue and digital 12- and 24-hour clocks ♣ I can read and write time on analogue and digital 12- and 24-hour clocks ♣ I can convert between different units of measure (time: seconds-minutes -hours). ♣ I can convert between different units of measure (time: seconds-minutes -hours).	Measure ♣ I can solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days ♣ I can compare and classify quadrilaterals. ♣ I can compare and classify triangles. ♣ I can describe and plot positions in the first quadrant. ♣ I can describe movements between positions as translations of a given unit to the left/ right and up/ down.	Geometry ♣ I can draw given polygons on the coordinate plane. ♣ I can multiply using column multiplication. ♣ I can divide using the bus stop method.	Consolidation					

Summer	Number: Place Value ♣ I can find 1000 more or less than a given number ♣ I can count backwards through 0 to include negative numbers ♣ I can round any number to the nearest 10, 100 and 1000	Measures ♣ I can read and write time including analogue and digital 12 and 24hour clocks. ♣ I can convert time between analogue and digital 12- and 24-hour clocks ♣ I can solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days ♣ I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	Number: Four operations ♣ I can multiply and divide using the appropriate method. ♣ I can add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate ♣ I can solve two-step problems in contexts, deciding which operations and methods to use and why ♣ I can use inverse operations to check answers to a calculation ♣ I can divide by 10, 100 and 1000	Number: Fractions and decimals ♣ I can recognise and show, using diagrams, families of common equivalent fractions ♣ I can find unitary fractions of amounts ♣ I can find non-unitary fractions of amounts ♣ I can recognise and write decimal equivalents of any number of tenths or hundredths ♣ I can recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$. ♣ I can compare numbers with the same number of decimal places up to two decimal places.	Measures ♣ I can convert between different units of measure: length ♣ I can convert between different units of measure: weight	Number: Four operations ♣ I can recognise and use factor pairs ♣ I can use commutativity in mental calculations ♣ I can multiply two-digit and three-digit numbers by a one-digit number using the formal written layout	Geometry ♣ I can describe and plot positions in the first quadrant. ♣ I can describe movements between positions as translations of a given unit to the left/ right and up/ down. ♣ I can complete a simple symmetric figure with respect to a specific line of symmetry.	Measures: Perimeter ♣ I can measure and calculate the perimeter	Consolidation	Consolidation	Consolidation
---------------	---	--	--	---	---	--	---	---	----------------------	----------------------	----------------------

Birch Copse Primary School

Maths

Year 5 – Yearly Overview



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12+
Autumn	<p>Number: Place Value</p> <ul style="list-style-type: none"> ♣ Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit ♣ Solve number problems and practical problems that involve number, place value and rounding ♣ Count forwards or backwards in steps of powers of 10 from any given number up to 1 000 000 ♣ Round any number up to 1 000 000 to the nearest 10, 100 and 1000 ♣ Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy ♣ Multiply whole numbers and those involving decimals by 10, 100 and 1000 ♣ Divide whole numbers and those involving decimals by 10, 100 and 1000 		<p>Number: Addition and Subtraction</p> <ul style="list-style-type: none"> ♣ Add whole numbers with more than 4 digits, including using formal written methods (columnar addition) ♣ Add numbers mentally with increasingly large numbers ♣ Subtract whole numbers with more than 4 digits, including using formal written methods (columnar subtraction) ♣ Subtract numbers mentally with increasingly large numbers ♣ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why 		<p>Number: Multiplication and Division</p> <ul style="list-style-type: none"> ♣ Multiply numbers up to 4 digits by a one-digit number using a formal written method, including long multiplication for two-digit numbers ♣ Multiply and divide numbers mentally drawing upon known facts e.g. 60×9 ♣ Understand the meaning of the equals sign ♣ Solve problems involving addition, subtraction, multiplication and division and a combination of these ♣ Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers ♣ Know and use the vocabulary of prime numbers and composite (non-prime) numbers and establish whether a number up to 100 is prime and recall prime numbers up to 19 		<p>Geometry</p> <ul style="list-style-type: none"> ♣ Identify, describe and represent the position of a shape following a reflection, using the appropriate language, and know that the shape has not changed. ♣ Identify, describe and represent the position of a shape following a translation, using the appropriate language, and know that the shape has not changed. ♣ Identify 3-D shapes, including cubes and other cuboids, from 2-D representations e.g. using isometric paper ♣ Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles 	<p>Measure</p> <ul style="list-style-type: none"> ♣ Convert between different units of measure. Length: kilometre and metre; centimetre and metre; centimetre and millimetre. Weight: grams and kilograms. Capacity: litre and millilitre. ♣ Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation ♣ Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling 	<p>Number: Fractions</p> <ul style="list-style-type: none"> ♣ Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths making links to decimals and measures e.g. $37/100$ metre = 0.37m ♣ Compare and order fractions whose denominators are all multiples of the same number ♣ Count forwards and backwards in fractions and decimals bridging zero 	<p>Perimeter and area</p> <ul style="list-style-type: none"> ♣ Use the properties of rectangles to deduce related facts and find missing lengths and angles ♣ Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres e.g. find the perimeter of an L shape where one or two side lengths are not given ♣ Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes 	<p>Number: Fractions, decimals and percentages</p> <ul style="list-style-type: none"> ♣ Read and write decimal numbers as fractions ♣ Mentally add and subtract: <ul style="list-style-type: none"> • tenths e.g. $0.8 - 0.3$ • one-digit whole numbers and tenths e.g. 3.4 • complements of 1 e.g. $0.85 + 0.15 = 1$ ♣ 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 hundred, and as a decimal fraction e.g. $43\% = 43/100 = 0.43$ ♣ Recognise that percentages are proportions of quantities e.g. 40% of the class are boys; what percentage are girls? as well as operators on quantities e.g. find 40% of 30 children. ♣ Know that percentages, decimals and fractions are different ways of expressing proportions 	Consolidation

Spring

Theme week

Number: Place Value

- ♣ Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
- ♣ Count forwards or backwards in steps of powers of 10 from any given number up to 1 000 000
- ♣ Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero
- ♣ Round any number up to 1 000 000 to the nearest 10, 100 and 1000
- ♣ Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- ♣ Solve number problems and practical problems that involve number, place value and rounding

Number: Addition and Subtraction

- ♣ Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- ♣ Add and subtract numbers mentally with increasingly large numbers
- ♣ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
- ♣ Complete, read and interpret information in tables, including timetables.

Number: Multiplication and Division

- ♣ Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers
- ♣ Know and use the vocabulary of prime numbers and composite (non-prime) numbers and establish whether a number up to 100 is prime and recall prime numbers up to 19
- ♣ Multiply numbers up to 4 digits by a one-digit number using a formal written method, including long multiplication for two-digit numbers
- ♣ Multiply and divide numbers mentally drawing upon known facts e.g. 60×9
- ♣ Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- ♣ Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
- ♣ Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
- ♣ Solve problems involving addition, subtraction, multiplication and division and a combination of these
- ♣ Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- ♣ Add and subtract decimals with a different number of decimal places e.g. $102.3 + 97.82$

Number: Fractions, decimals and percentages

- ♣ Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths making links to decimals and measures e.g. $37/100$ metre = 0.37m
- ♣ Compare and order fractions whose denominators are all multiples of the same number
- ♣ Count forwards and backwards in fractions and decimals bridging zero
- ♣ Connect fractions >1 to division with remainders e.g. $5/4 = 5 \div 4 = 1$ and $1/4$
- ♣ Recognise mixed numbers and improper fractions and convert from one form to the other e.g. $5 \frac{2}{3} = 17/3$ and write mathematical statements >1 as a mixed number e.g. $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$
- ♣ Add and subtract fractions with the same denominator and multiples of the same number e.g. $2/3 + 1/6 = 5/6$
- ♣ Find fractions of numbers and quantities e.g. $3/4$ of £14
- ♣ Read and write decimal numbers as fractions
- ♣ Mentally add and subtract:
 - tenths e.g. $0.8 + 0.9$
 - one-digit whole numbers and tenths e.g. $3.1 - 2.9$
 - complements of 1 e.g. $0.83 + 0.17 = 1$
- ♣ Round decimals with two decimal places to the nearest whole number and to one decimal place e.g. $27.59 = 27.6$ (1d.p.)
- ♣ Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents e.g. $650/1000 = 65/100 = 0.65$;
- ♣ Read, write, order and compare numbers with up to three decimal places
- ♣ Solve problems and puzzles involving number up to three decimal places, checking the reasonableness of answers
- ♣ 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 hundred, and as a decimal fraction
- ♣ Recognise that percentages are proportions of quantities as well as operators on quantities
- ♣ Solve problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those with a denominator of a multiple of 10 or 25.e.g. $12/20 = 60/100 = 0.6 = 60\%$
- ♣ Know that percentages, decimals and fractions are different ways of expressing proportions•

Measures, Perimeter and area

- ♣ Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shape
- ♣ Convert between different units of measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- ♣ Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- ♣ Estimate volume e.g. using 1cm³ blocks to build cubes and cuboids and capacity e.g. using water
- ♣ Solve problems involving converting between units of time e.g. write these lengths of time in order, starting with the smallest: 250sec, 90min, $\frac{1}{2}$ hour, 4min
- ♣ Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling

Geometry

- ♣ Identify 3-D shapes, including cubes and other cuboids, from 2-D representations
- ♣ Draw lines accurately to the nearest millimetre and use conventional markings for parallel lines and right angles.
- ♣ Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- ♣ Draw given angles, and measure them in degrees (°)
- ♣ Identify:
 - angles at a point and one whole turn (total 360°)
 - angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)
 - other multiples of 90°
- ♣ Use angle sum facts and other properties to make deductions about missing angles
- ♣ Use the properties of rectangles to deduce related facts and find missing lengths and angles e.g. all angles are right angles, diagonals are congruent (same length) and bisect each other (divide into two equal parts), one diagonal separates the rectangle into two congruent triangles...
- ♣ Use the term diagonal and make conjectures about the angles formed by diagonals and sides, and other properties of quadrilaterals,
- ♣ Find the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

Statistics

- ♣ Complete, read and interpret information in tables, including timetables.
- ♣ Solve comparison, sum and difference problems using information presented in a line graph e.g. on a distance-time graph, how long did it take to travel a particular distance?
- ♣ Connect work on coordinates and scales to their interpretation of time graphs

Summer	<p>Number: Place Value</p> <ul style="list-style-type: none"> ♣ Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit ♣ Count forwards or backwards in steps of powers of 10 from any given number up to 1 000 000 ♣ Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero ♣ Solve number problems and practical problems that involve number, place value and rounding ♣ Recognise and describe linear number sequences, including those involving fractions and decimals, and find the term-to-term rule e.g. find the rule and complete the sequence: __, 16, 8, 4, __, 1, 0.5, __ ♣ Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. e.g. MCMXIV (1914) 	<p>Number: Addition and Subtraction</p> <ul style="list-style-type: none"> ♣ Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) ♣ 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 and methods to use and why 	<p>Number: Multiplication and Division</p> <ul style="list-style-type: none"> ♣ Continue to practise and apply multiplication tables and related division facts, committing them to memory and using them confidently to make larger calculations ♣ Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers ♣ Solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors e.g. $828 \div 36 = (828 \div 4) \div 9 = 207 \div 9 = 23$ ♣ Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers e.g. prime factors of $60 = 2 \times 2 \times 3 \times 5$ ♣ Establish whether a number up to 100 is prime and recall prime numbers up to 19 ♣ Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers ♣ Multiply and divide numbers mentally drawing upon known facts e.g. $840 \div 12$ ♣ Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 ♣ Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context ♣ Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) ♣ 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. e.g. a toymaker can make 8 toys in 2 hours; how many toys can he make in 5 hours? 	<p>Number: Fractions, decimals and percentages</p> <ul style="list-style-type: none"> ♣ Know that percentages, decimals and fractions are different ways of expressing proportions ♣ Count forwards and backwards in fractions and decimals bridging zero ♣ 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 and extending to thousandths, making links to decimals and measures e.g. $755/1000 \text{ kg} = 0.755 \text{ kg}$ ♣ Connect fractions >1 to division with remainders e.g. $37/5 = 37 \div 5 = 7 \frac{2}{5}$ ♣ Recognise mixed numbers and improper fractions and convert from one form to the other e.g. $5 \frac{2}{3} = 17/3$ and write mathematical statements >1 as a mixed number ♣ Add and subtract fractions with the same denominator and multiples of the same number e.g. $2/5 + 7/10 = 11/10 = 1 \frac{1}{10}$ ♣ Find fractions of numbers and quantities e.g. $7/8$ of 240ml ♣ Connect multiplication by a fraction to using fractions as operators e.g. $8/5$ of $40 = 40 \times 8/5$ ♣ Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. e.g. use egg boxes to represent $25/6 \times 3 = 615/6 = 83 \frac{1}{2}$ ♣ Read and write decimal numbers as fractions ♣ Mentally add and subtract: <ul style="list-style-type: none"> • tenths e.g. $0.8 + 0.9$ • one-digit whole numbers and tenths e.g. $3.1 - 2.9$ • complements of 1 e.g. $0.83 + 0.17 = 1$ ♣ Add and subtract decimals with a different number of decimal places e.g. $98.4 - 9.7$ ♣ Round decimals with two decimal places to the nearest whole number and to one decimal place ♣ Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents e.g. $782/1000 = 7/10 + 8/100 + 2/1000$ ♣ Read, write, order and compare numbers with up to three decimal places e.g. put these decimals in order starting from the smallest: 0.471, 0.46, 0.4, 0.465, 0.5 ♣ Solve problems and puzzles involving number up to three decimal places, checking the reasonableness of answers ♣ 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 hundred, and as a decimal fraction ♣ Recognise that percentages are proportions of quantities e.g. 30% voted 'yes', 45% voted 'no' and the rest did not vote; what percentage did not vote? as well as operators on quantities e.g. find 45% of 160 ♣ Solve problems which require knowing percentage and decimal equivalents of $1/2, 1/4, 1/5, 2/5, 4/5$ and those with a denominator of a multiple of 10 or 25. e.g. John ate $4/5$ of a 20cm jelly snake; Jane ate 0.7 of her 20cm jelly snake; how much more has John eaten? ♣ Round decimals with two decimal places to the nearest whole number and to one decimal place 	<p>Measures, Perimeter and area</p> <ul style="list-style-type: none"> ♣ Convert between different units of measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) ♣ Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres ♣ Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shape ♣ Estimate volume e.g. using 1cm³ blocks to build cubes and cuboids and capacity e.g. using water ♣ Solve problems involving converting between units of time ♣ Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling ♣ Calculate the area of scale drawings using given measurements. e.g. calculate the area of a 5cm x 3cm garden on a scale drawing with a scale 1cm:2m (60m²) ♣ Understand and use equivalences between metric and common imperial units such as inches, pounds and pints e.g. Given that an inch is approximately 2.5cm, calculate the metric equivalent of a foot (12 inches) 	<p>Geometry</p> <ul style="list-style-type: none"> ♣ Identify 3-D shapes, including cubes and other cuboids, from 2-D representations ♣ Draw lines accurately to the nearest millimetre and use conventional markings for parallel lines and right angles. ♣ Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles ♣ Draw given angles, and measure them in degrees (°) ♣ Identify: <ul style="list-style-type: none"> -angles at a point and one whole turn (total 360°) -angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) -other multiples of 90 ♣ Use angle sum facts and other properties to make deductions about missing angles ♣ Use the properties of rectangles to deduce related facts and find missing lengths and angles e.g. all angles are right angles, diagonals are congruent (same length) and bisect each other (divide into two equal parts), one diagonal separates the rectangle into two congruent triangles... ♣ Use the term diagonal and make conjectures about the angles formed by diagonals and sides, and other properties of quadrilaterals, ♣ Distinguish between regular and irregular polygons based on reasoning about equal sides and angles e.g. sort triangles and quadrilaterals into regular and irregular sets, realising that only the equilateral triangles and the squares are regular ♣ 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 	<p>Statistics</p> <ul style="list-style-type: none"> ♣ Complete, read and interpret information in tables, including timetables. ♣ Solve comparison, sum and difference problems using information presented in a line graph e.g. on a distance-time graph, how long did it take to travel a particular distance? ♣ Connect work on coordinates and scales to their interpretation of time graphs ♣ Begin to decide which representations of data are most appropriate and why
--------	---	--	---	---	--	--	---

Birch Copse Primary School

Maths

Year 6 – Yearly Overview



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12+		
Autumn	Number: Place Value <ul style="list-style-type: none"> I can read and write numbers up to 10, 000, 000 and determine the value of each digit I can compare and order numbers up to 10, 000, 000 I can round any whole number to a required degree of accuracy I can round decimals to a required degree of accuracy I can use negative numbers in context 		Number: Four operations <ul style="list-style-type: none"> I can solve problems involving addition and subtraction I can multiply multi-digit number up to 4 digits by a 2 digit number using the formal written method of long multiplication. I can use a written method for division I can solve problems which require answers to be rounded to specified degrees of accuracy I can solve multi-step word problems involving all four operations I can use estimation to check answers and determine a degree of accuracy I can multiply and divide numbers by 10, 100 and 1000 I can use BODMAS to carry out calculations I can identify common factors I can identify prime numbers I can identify common multiples 			Number: Fractions, decimals and percentages <ul style="list-style-type: none"> I can find fractions of quantities I can simplify fractions and express them with the same denominator I can compare and order fractions I can add and subtract fractions including those with mixed numbers I can find percentages of quantities I can solve problems involving percentages I can recall and use equivalence between simple fractions, decimals and percentages. I can associate a fraction with division and calculate decimal fraction equivalents 			Geometry <ul style="list-style-type: none"> I can describe positions on the full coordinate grid I can find missing coordinates in all four quadrants I can draw and reflect shapes on the coordinate plane I can draw and translate shapes on the coordinate plane I can find unknown angles in any triangles, quadrilaterals, and regular polygons I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles I can draw 2-D shapes using given dimensions and angles. I can recognise properties of 2D shapes 		Consolidation		Consolidation	
Spring	Theme week		Number: Algebra <ul style="list-style-type: none"> I can find and use an algebraic rule I can substitute into simple expressions and equations to find a particular value. I can use simple formulae. I can solve equations I can find pairs of numbers that satisfy an equation with two unknowns. I can enumerate all possibilities I can generate and describe linear number sequences 		Measures <ul style="list-style-type: none"> I can read scales and solve problems involving measures I can convert between units of measure I can solve problems involving measure I can convert between miles and kilometres I can calculate area and perimeter of squares, rectangles and compound shapes I can calculate the area of triangles and parallelograms I can calculate the volume of shapes 		Number: Ratio <ul style="list-style-type: none"> I can solve problems involving the relative sizes of two quantities I can solve problems involving ratio I can solve problems involving unequal sharing I can solve problems involving similar shapes where the scale factor is known or can be found. 		Statistics <ul style="list-style-type: none"> I can interpret line graphs I can interpret pie charts I can use my understanding of graphs and charts to solve problems I can calculate the mean as an average 		Measures: Time <ul style="list-style-type: none"> I can read and interpret time tables I can solve problems involving time 		Consolidation	
Covered by PPA staff once per week			Number: Arithmetic <ul style="list-style-type: none"> I can multiply fractions by whole numbers I can multiply fractions by fractions I can divide fractions by whole numbers I can add and subtract fractions and mixed numbers I can use long division I can use long multiplication I can find percentages of quantities 											
Summer	Revision and consolidation due to class needs					Transition units, investigations and consolidation.								