



# Preston Candover CE Primary School – Mathematics Curriculum

## Early Years (Reception) Mathematics Curriculum



### Wrens

Autumn Term 1		
Wk	Yr	Weekly Summary
1	R	Completing Baseline assessment- which will inform planning
2	R	Completing Baseline assessment- which will inform planning
3	R	Use book The Smartest Giant in town to explore theme of matching. Matching the same. Comparing differences. Sorting by matching the same and separating what is different.
4	R	Finding the odd one out. Making comparisons. Comparing size, mass, and capacity.
5	R	Recognising patterns- copy, continue, describe and create own patterns using shapes, colours, objects, sounds and actions
6	R	Representing 123, Comparing 123, Composition of 123, Subitising to 3
7	R	Recognising and describing 2D shapes using mathematical language. Create pictures using shapes. Sorting shape.

Autumn Term 2		
Wk	Yr	Weekly Summary
1	R	Use book Rosie's walk to explore positional language. Using positional words and developing spatial awareness
2	R	Numbers 1-5 - counting with one-to-one correspondence. Representing numbers to 5. One more/ one less. Ordering numbers to 5. Composition of numbers to 5
3	R	Recognising and describing 2D shapes. Exploring different shapes with 4 sides. Representing shapes
4	R	Recognising and ordering days of the week. Use language related to time such as 'yesterday', 'today', 'tomorrow', 'morning', 'afternoon', 'evening' and 'night'. Sequencing, measurements of time
5	R	Money- recognition of coins and matching real coins to amounts of money. Repeating patterns

Spring Term 1		
Wk	Yr	Weekly Summary
1	R	Introducing 0. Compare numbers to 5. Composition of 4 & 5
2	R	Using the language of mass and size. Comparing size and mass. Understanding heavy/light. Sort and compare by weight
3	R	Exploring capacity. Making predictions relating to capacity. Making comparisons in capacity. Ordering by capacity.
4	R	Composition of 6,7,8 Using a 10's frame. Creating number sentences. Finding different ways to make the same total.
5	R	Making number pairs. Combining 2 groups to make a total. Subitising numbers Addition and subtraction number sentences using number pairs. Recognising that adding and subtracting are inverse operations.
6	R	Length, height, time and measuring. Use story Titch to explore length and height. Compare lengths and heights. Use story Mr Wolf's week to explore the o'clock time.



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Spring Term 2		
Wk	Yr	Weekly Summary
1	R	Building numbers 9 & 10. Comparing Numbers to 10. Making the same total in different ways. Creating number sentences for addition and subtraction
2	R	Number bonds to 10. Addition and subtraction sentences to 10
3	R	Recognising and describing 2/3D shapes. Compose and decompose shapes. Seeing shapes within shapes. Repeating patterns
4	R	Money- revision of coin recognition. Making amounts using coins. Consolidation of counting and subitising.
5	R	Consolidation of composition of numbers to 10. Consolidation of number bonds to 10
6	R	Consolidation of sorting, matching, comparing and ordering. Revising patterns

Summer Term 1		
Wk	Yr	Weekly Summary
1	R	Counting to 20 and beyond. Ordering numbers to 10/20. Composition of numbers. Subitising.
2	R	Numbers to 20 and beyond. Comparing and ordering numbers. Number bonds to 10/20. Use 10's frames to represent numbers.
3	R	Counting to 20 and beyond. Ordering to 20. Using a 10's frame to build and represent numbers.
4	R	Subitising Composition of number. Number sentences. Addition and subtraction stories.
5	R	Adding and taking away Recording number sentences
5	R	Ordering and comparing amounts. 1 more/less than.

Summer Term 2		
Wk	Yr	Weekly Summary
1	R	Doubling numbers to 5. Sharing equally - beginning to understand halving.
2	R	Counting to 100 Patterns in numbers. Recognising the counting system. Counting in 2's.
3	R	Patterns in numbers. Exploring concept of odd and even numbers.
4	R	Consolidation of adding more and taking away. Adding and subtracting using coins.
5	R	Consolidation of counting to 100. Sharing equally. Numerical patterns in the number system.
6	R	Consolidation sharing equally and patterns in the number system



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## Year 1 and 2 Mathematics Curriculum

### Kites and Kestrels



Autumn Term 1			
Wk	Yr	Strands	Weekly Summary
1	1	Number and place value (NPV); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Estimate and count reliably up to 10 objects; Count objects from a larger group, represent numbers using objects and pictures, Counting forwards and backwards from any number, Adding 1 more and 1 less to numbers
	2	Number and place value (NPV); Mental multiplication and division (MMD)	Estimate a quantity, then count in 10s; recognise tens and ones, use place value charts, partition 2 digit numbers, write place value additions for 2-digit numbers
2	1	Number and place value (NPV); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	order and compare numbers to 10 using objects, ordering numbers using a number line, make 'teen' numbers by adding some more to 10, use concrete and pictorial ways to represent numbers to 20, compare groups of objects up to 20, order and compare numbers up to 20
	2	Number and place value (NPV); Mental multiplication and division (MMD)	Place 10s on a number line; place 2 digit numbers on a number line, compare 2 digit numbers, order 2 digit numbers
3	1	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Partition 5 and learn bonds to 5; add 1, 2, 3, 4 or 5 to 5 by counting on; add 1 or 2 to numbers to 6 by counting on; add by counting on
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Know pairs to 10 and 20; use a symbol to represent a missing number, count in 10s from 1-digit and 2-digit numbers; add and subtract 10s using Spider or coins
4	1	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Know how much each coin to 10p is worth; add 1p and 2p to coins up to 10p; find ways to pay amounts to 10p; tell the time to the hour and the half hour
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Know how much each coin to £1 is worth; investigate amounts made using coins (use a system and make an ordered list); use coins to buy objects up to 20p and find change; read time on digital/analogue clocks to the nearest half hour and quarter hour
5	1	Number and place value (NPV); Mental addition and subtraction (MAS); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD); Measurement (MEA)	Estimate and measure length using a uniform unit; measure and estimate by comparing with a metre stick; understand and create symmetrical patterns; spot if a pattern/object is symmetrical
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Geometry: position and direction (GPD); Measurement (MEA)	Measure using decimetre strips; measure using centimetres; understand there are 10cm in a decimetre; measure using rulers measured in centimetres and metres; identify left and right; give accurate directions; understand clockwise and anticlockwise turns and right angles as quarter turns
6	1	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Understand subtraction as 'take away'; begin to count back to subtract; see how subtraction 'undoes' addition; use pairs to 10 to find how many to the next 10; add and subtract 1 or 2; decide whether to add or subtract to solve a word problem
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and	Use pairs to 10 to find the next 10 and how many to the next 10; find change from 20p' add and subtract 10, 11 and 20 in the context of money



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		algebra (PRA); Measurement (MEA)	
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Autumn Term 2			
Wk	Yr	Strands	Weekly Summary
7	1	Number and place value (NPV); Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP)	Mark numbers on a 0 to 20 beaded line; count in 10s and begin to use multiplication; recognise odd and even numbers; find halves and quarters of shapes, including by folding
	2	Number and place value (NPV); Problem solving, reasoning and algebra (PRA); Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP)	Count in 10s and 2s; spotting patterns; compare 2 numbers less than 20; count in 10s from 10; find halves and quarters of shapes, including by folding
8	1	Number and place value (NPV); Mental multiplication and division (MMD); Measurement (MEA)	Find doubles to double 20; share numbers to 10 to find which are even/odd; find odd and even numbers on a 1–20 track; order days of the week and months of the year.
	2	Number and place value (NPV); Mental multiplication and division (MMD); Mental addition and subtraction (MAS); Measurement (MEA)	Find doubles to double 20 and related halve; find halves of even numbers using strips to help; add and subtract 10, 11, 20 and 21 using Spider
9	1	Mental addition and subtraction (MAS); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD)	Name and describe squares, rectangles, circles and triangles; use lists to sort objects; use a table to help sort objects
	2	Mental addition and subtraction (MAS); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD)	Describe, recognise, visualise and draw regular and irregular common 2D shapes; make and describe polygons; use Venn and Carroll diagrams to sort objects and shapes
10	1	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Partition 10 into pairs and write the addition; find 1 more/less and 2 more/less than any number up to 20, recording the hops on a beaded line; find 1 more/less than any 2-digit number
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Rehearse addition and subtraction facts for 20; work out what missing number symbols stand for; add and subtract 1-digit numbers, not crossing 10s, using number facts and patterns; add/subtract a 1-digit to/from a 2-digit number by bridging multiples of 10 using knowledge of pairs to 10 and place value.
11	1	Mental addition and subtraction (MAS)	Partition 6, 7 and 10 into pairs, recording the related addition sentences; add 2, 3 or 4 by counting on (addition can be done in any order)
	2	Mental addition and subtraction (MAS)	Add/subtract 20, 30, 40, and 50 to/from 2-digit numbers, using the beaded line; add 11, 12, 13, 21, 22, 23, 31, 32, and 33; add/subtract 11 and 21
12	1	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Count to 100; find 1 more and 1 less; use ordinal numbers in context; rehearse number bonds to 10
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Add near multiples of 10 using a calculator and spot patterns; add near multiples of 10; revise adding 'ordinary' 2-digit numbers (mostly ending in 1, 2, or 3); add an ordinary or a nearly number and do the addition accordingly



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Spring Term 1			
Wk	Yr	Strands	Weekly Summary
13	1	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD)	Find 1 more/less than any 2-digit number; count in 10s from 10; count in 10s from any number; estimate a quantity; find 10 more/less than a 2-digit number
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD)	Compare numbers using < and >; identify properties of numbers; use ordinal numbers; round 2-digit numbers to nearest the multiple of 10
14	1	Mental addition and subtraction (MAS); Mental multiplication and division (MMD)	Rehearse number bonds to 8 and 9; find doubles to double 6; add three numbers;
	2	Mental addition and subtraction (MAS); Mental multiplication and division (MMD)	Add/subtract a 1-digit number to/from a 2-digit number, bridging 10; use number facts or place value to add/subtract
15	1	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Know the value of each coin to £1; find totals of two and three coins to 10p; find all possibilities by making an ordered list; find 10 more/less than any 2-digit number
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Add 2-digit numbers using a number grid; add 2-digit numbers crossing the 10s barrier; add/subtract 2-digit numbers
16	1	Measurement (MEA); Number and place value (NPV)	Compare weights using direct comparison; use non-standard units to measure weight; tell the time to the hour and the half hour
	2	Measurement (MEA); Number and place value (NPV); Mental addition and subtraction (MAS);	Measure weight using uniform non-standard units; know that weight can be measured in kg and g; compare objects with a 100g and a 1 kg weight; know how long 15, 30 and 60 seconds are; have a sense of the length of a minute
17	1	Number and place value (NPV); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA); Statistics (STA)	Learn to count in 2s; recognise odd/even numbers; sort numbers onto diagrams; double numbers up to 12; find half of numbers up to 24;
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA); Statistics (STA)	Recognise multiples of 2, 5 and 10; record multiplication facts for the 5 times table; begin to relate multiplication with division; understand grouping as one model of division; solve a word problem

Spring Term 2			
Wk	Yr	Strands	Weekly Summary
18	1	Number and place value (NPV); Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA)	Show a 2-digit number, combining groups of 10s and 1s; know what each digit means in a 2-digit number; compare two numbers less than 100; give a number between two neighbouring multiples of 10; investigate place value in 2-digit numbers
	2	Number and place value (NPV); Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP)	Compare two 2-digit numbers; round to the nearest 10; find $\frac{1}{2}$ , $\frac{1}{4}$ and $\frac{1}{3}$ of amounts



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19	1	Number and place value (NPV); Mental addition and subtraction (MAS); Measurement (MEA); Statistics (STA)	Measure objects and lengths of string in cubes; find a difference in lengths using cubes; find a difference in heights; investigate differences between towers of cubes.
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Measurement (MEA); Statistics (STA)	Add 2-digit numbers using the 1–100 grid; add/subtract 2-digit numbers; find change from 50p; find change by counting up to find a difference
20	1	Number and place value (NPV); Mental addition and subtraction (MAS); Measurement (MEA); Statistics (STA)	Estimate and measure capacities, and compare capacities by direct comparison; create a block graph; draw pictograms
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Measurement (MEA); Statistics (STA)	Measure liquid in uniform non-standard units (cupfuls); measure liquid in litres; estimate more/less than a litre; draw and interpret a block graph and a pictogram
21	1	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA)	Split 8 and 9 into pairs and memorise the bonds; relate addition and subtraction number facts; add doubles/near doubles; add 10 to 2-digit numbers; subtract small multiples of 10
	2	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA)	Work out multiplication/division using models; draw arrays and create multiplication and division problems; solve division/multiplication word problems
22	1	Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Rehearse number bonds to 10; bridge 10 with bead strings/beaded lines; use pairs to 10 to add numbers by bridging 10; sort calculations to help work them out
	2	Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Add five 1-digit numbers; sort additions/subtractions to help work them out; subtract 2-digit numbers solve word problems using addition or subtraction
23	1	Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Find ways to pay up to 20p; find totals of 1-digit prices; add 10p and 20p to amounts of money; find change from 10p; find the difference
	2	Mental addition and subtraction (MAS); Measurement (MEA)	Subtract by finding the difference; use a landmarked line to find the difference; subtract by finding the difference; make 2-digit amounts using coins; add 2-digit money amounts

Summer Term 1			
Wk	Yr	Strands	Weekly Summary
24	1	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP)	Order 2-digit numbers; find a number between multiples of 10; find 10 more and 10 less; find halves and quarters of shapes and amounts
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP)	Count in 2s, 3s, 5s and 10s; count in fractions; find $\frac{1}{2}$ , $\frac{1}{4}$ and $\frac{3}{4}$ of amounts
25	1	Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA);	Add 10 to a 2-digit number; add/subtract 11 to/from 2-digit numbers; subtract 10s; recap adding and subtracting 11
	2	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA);	Double and halve by partitioning; add pairs of 2-digit numbers by partitioning; add by partitioning or counting on; subtract pairs of 2-digit numbers by counting back
26	1	Number and place value (NPV); Mental addition and subtraction (MAS)	Add to the next 10; add/subtract, bridging 10; sort calculations
	2	Number and place value (NPV); Mental addition and subtraction (MAS)	Subtract by counting up or counting back
27	1	Fractions, ratio and proportion (FRP);	Name and describe common 3D shapes and their faces;





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		Geometry: properties of shapes (GPS); Measurement (MEA)	read the time to the half hour on analogue and digital clocks
	2	Fractions, ratio and proportion (FRP); Geometry: properties of shapes (GPS); Measurement (MEA)	Name 3D shapes and identify their properties; tell the time to the nearest quarter hour on analogue clocks
28	1	Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA)	Count in 2s, 5s and 10s (multiplication); multiply using a penny number line; divide by finding how many sets
	2	Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA)	Multiply and divide using beaded and landmarked lines; understand multiplication as the inverse of division; use landmarked lines to solve mystery multiplications and divisions

Summer Term 2			
Wk	Yr	Strands	Weekly Summary
29	1	Number and place value (NPV); Mental addition and subtraction (MAS)	Find totals to 10p or 20p; find totals using other number facts; find change by finding the difference/counting on; find differences
	2	Number and place value (NPV); Mental addition and subtraction (MAS)	Place 2-digit numbers on a number line; round 2-digit numbers to the nearest 10; place 3-digit numbers on a beaded line; explore place value in 3-digit numbers; write place value additions
30	1	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA)	Use pairs to 10 to find the complement to the next multiple of 10; add 1-digit numbers to 2-digit numbers using patterns and number facts.
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA)	Add pairs of 2-digit numbers by partitioning or counting on; subtract by counting up, counting back or finding a difference; solve problems involving addition and subtraction of pence (<£1)
31	1	Mental multiplication and division (MMD); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD); Measurement (MEA); Statistics (STA)	Recognise 3D shapes and describe their position; understand 1/4, 1/2 and 3/4 turns; know days of the week and months of the year; tell the time to the nearest half hour
	2	Mental multiplication and division (MMD); Measurement (MEA); Statistics (STA)	Revise language relating to date (days of the week, months of the year); collect data to make a block graph; order times shown on a clock; tell the time to the nearest 5 minutes
32	1	Number and place value (NPV); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA)	Double and halve numbers; multiply using 'sets of' and divide using 'how many sets?'; multiply and divide with money
	2	Number and place value (NPV); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA)	Understand doubling and halving as inverses; multiply and divide using sets, beaded lines or landmarked lines; solve word problems using multiplication or division
33	1	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Add/subtract 1-digit numbers to/from 2-digit numbers using known facts; find totals of money; give change by finding the difference
	2	Number and place value (NPV); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Use coins to make 2-digit numbers; add two amounts of money totalling less than £1; find change by counting up to find a difference or by counting back; solve 1 and 2-step addition and subtraction money problems.
34	1	Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and	Learn the months of the year; understand time, using the language of time; order times from earliest to latest; draw, read and understand block graphs and pictograms



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		algebra (PRA); Measurement (MEA); Statistics (STA)	
	2	Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA); Measurement (MEA); Statistics (STA)	Find halves and quarters of amounts; count in fractions; solve word problems using multiplication and division; tell the time using digital and analogue clocks

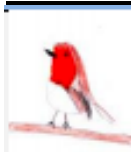




# Preston Candover CE Primary School – Mathematics Curriculum

## Year 3 and 4 Mathematics Curriculum

### Robins



Autumn Term 1			
Wk	Yr	Strands	Weekly Summary
1	3	Number and place value (NPV); Measurement (MEA)	Revise placing 2-digit numbers on an empty number line; place 3-digit numbers on a landmarked line; explore place value; order 3-digit and 4-digit numbers; use £,p notation; compare amounts of money written in pounds and pence
	4	Number and place value (NPV); Measurement (MEA)	Explore place value in 4-digit numbers; write place value subtractions; place and order 3-digit numbers and 4-digit numbers on a landmarked line
2	3	Mental addition and subtraction (MAS)	Rehearse addition and subtraction facts up to 20; use the = sign to represent equality; use number facts to add/subtract a 1-digit number to/from a 2-digit number; count up and use number bonds to subtract 2-digit numbers from 100; add several small numbers, using number facts
	4	Mental addition and subtraction (MAS)	Add pairs of 2-digit numbers; add 2-digit numbers to 3-digit numbers; use Frog to subtract pairs of 2-digit numbers; count up and use number bonds to subtract 2-digit numbers from 100; choose counting up or back to subtract 2-digit numbers from numbers >100
3	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS)	Add 2-digit numbers by partitioning; subtract by counting up (answers less than 20 then answers more than 20); count up to find change from £1; use counting up (Frog) to subtract, check with addition
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS)	Add two 3-digit numbers then three 3-digit numbers using compact written addition; use counting up (Frog) to subtract, check with addition
4	3	Geometry: properties of shapes (GPS)	Recognise symmetry and complete symmetrical drawings; describe, name and sort 2D shapes; identify and use diagrams to sort 3D shapes according to their properties (cube, cuboid, cylinder, sphere, cone, pyramid)
	4	Geometry: properties of shapes (GPS)	Use compasses to draw circles to given radii; draw different polygons and identify their properties; identify properties of triangles and sort them using diagrams; describe and name 3D shapes and identify and use diagrams to sort them (cube, cuboid, cylinder, sphere, cone, pyramid and prism)
5	3	Mental multiplication and division (MMD)	Double 2-digit numbers up to 50; halve even 2-digit numbers; revise 5 and 10 times tables, division facts and commutativity; revise 2 times table, focusing on division; recognise multiples of 2, 5 and 10
	4	Mental multiplication and division (MMD)	Double and halve 2-digit numbers, including odd numbers; double and halve 3-digit numbers; revise 4 and 8 times tables and divisions; double the 3 times table to get the 6 times table; rehearse division facts for 3, 4, 5, 6 and 8 times tables



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<b>Autumn Term 2</b>			
<b>Wk</b>	<b>Yr</b>	<b>Strands</b>	<b>Weekly Summary</b>
6	3	Number and place value (NPV); Mental addition and subtraction (MAS)	Use place value to add/subtract 3-digit numbers; add and subtract money using place value; add/subtract 1, 10 and 100 to/from any 3-digit number
	4	Number and place value (NPV); Mental addition and subtraction (MAS)	Use place value to add and subtract 4-digit numbers; add/subtract 1, 10, 100 and 1000 to/from 4-digit numbers
7	3	Number and place value (NPV); Mental addition and subtraction (MAS)	Add/subtract 100s, 10s and 1s with 3-digit numbers; add/subtract near multiples of 10 to/from 2-digit numbers and 3-digit numbers
	4	Number and place value (NPV); Mental addition and subtraction (MAS)	Add/subtract using place value and number facts (3-digit numbers and 4-digit numbers); add/subtract near multiples of 10 or 100 to/from 3-digit numbers
8	3	Mental addition and subtraction (MAS); Mental multiplication and division (MMD)	Know multiples of 5 which total 100; know pairs of 2-digit numbers which total 100; subtract numbers on either side of 100 by counting up (Frog)
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD)	Carry out 3-digit expanded decomposition with one exchange; carry out expanded decomposition with 3-digit numbers; subtract using decomposition or Frog
9	3	Mental multiplication and division (MMD); Measurement (MEA); Statistics (STA)	Revise telling time past the hour (to 5 mins) on both analogue and digital clocks; know equivalent analogue and digital times; time events in seconds and record on a bar graph (one step is 10 seconds); collect/represent data in pictograms (one symbol represents 2 units)
	4	Measurement (MEA); Statistics (STA)	Revise telling time, am and pm to the nearest minute on both analogue and digital clocks and convert between the two; find times later, crossing the hour, on both analogue and digital clocks; use am and pm; calculate time intervals, crossing the hour, using both analogue and digital clocks; time events in seconds and record on a bar graph (one step is 5 or 10 seconds); collect and represent data in pictograms (one picture represents four units)
10	3	Mental multiplication and division (MMD); Written multiplication and division (WMD)	Rehearse multiplication and division facts for the 3 and 4 times table; write division facts to go with multiplications; divide using multiplication facts, with remainders
	4	Mental multiplication and division (MMD); Written multiplication and division (WMD)	Use grid method to multiply a 2-digit number by a 1-digit number; divide numbers above the 10th multiple using chunking
11	3	Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP)	Understand the concept of $\frac{1}{2}$ , $\frac{1}{3}$ and $\frac{1}{4}$ of shapes and numbers; find half of quantities less than 100, including odd numbers; find $\frac{1}{4}$ , $\frac{3}{4}$ , $\frac{1}{3}$ and $\frac{2}{3}$ of quantities
	4	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP)	Divide 2-digit numbers just above the 10 <sup>th</sup> multiple with remainders; count in $\frac{1}{4}$ s, $\frac{1}{3}$ s and $\frac{1}{10}$ s saying equivalent fractions; find unit and non-unit fractions of amounts

<b>Spring Term 1</b>			
<b>Wk</b>	<b>Yr</b>	<b>Strands</b>	<b>Weekly Summary</b>
12	3	Number and place value (NPV); Decimals, percentages and their equivalence to fractions (DPE)	Revise placing 3-digit numbers on a number line; place 3-digit numbers between multiples of 10 on a 'hundred' line and round to the nearest 10; partition 3-digit numbers into 100s, 10s and 1s; compare and order numbers; order groups of 3-digit numbers; investigate 3-digit numbers.
	4	Number and place value (NPV); Decimals, percentages and their equivalence to fractions (DPE)	Divide numbers by 10 to give 1-place decimals; multiply numbers like 3.4 and 5.6 by 10; use function machines; compare and order numbers; place 1-place decimals on a number line and round to nearest whole; understand



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			fractional and decimal forms of tenths ( $\frac{3}{10}$ and 0.3); order numbers with one decimal place
13	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Measurement (MEA)	Add three 2-digit numbers; add pairs of 2-digit numbers using different strategies; subtract multiples of 10 and near multiples; count up to solve 2-digit subtractions; choose strategies to subtract
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Measurement (MEA)	Use expanded and compact written addition to add amounts of money; count up to solve 3-digit subtractions; count up to find change from £5 and £10; count up to find a price difference
14	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS);	Add 3-digit numbers using expanded addition; estimate totals; subtract a 2-digit number from a 3-digit number using counting up (Frog)
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Problem solving, reasoning and algebra (PRA)	Add three then four 2-digit numbers using compact addition; subtract 3-digit numbers using expanded column subtraction; subtract 3-digit numbers choosing an efficient method; investigate patterns when subtracting 3-digit numbers
15	3	Measurement (MEA); Statistics (STA)	Measure in m, cm and mm; convert cm to m and mm to cm and vice versa; measure in kg and g; convert g to kg and vice versa; draw a bar graph; draw a bar graph where 1 square represents 2 units
	4	Measurement (MEA); Statistics (STA)	Measure in m, cm and mm; convert from cm to m and m and cm to m (2dp); convert from mm to cm (1dp); weigh in kg and g; convert from kg to g and vice versa (1dp); estimate weights and order items by weight; display information on a bar graph; draw a bar graph where 1 square represents 4 units
16	3	Fractions, ratio and proportion (FRP)	Place fractions on a number line ( $\frac{1}{4}$ s $\frac{1}{2}$ s and $\frac{1}{8}$ s); find fractions of amounts ( $\frac{1}{4}$ s, $\frac{1}{8}$ s, $\frac{1}{3}$ s and $\frac{1}{6}$ s); understand denominator and numerator and compare fractions; recognise and find fractions with a total of 1
	4	Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE)	Identify equivalent fractions, especially in relation to halves and quarters; simplify fractions by reducing to their simplest form; identify equivalent fractions and mark on a number line; mark equivalent fractions/decimals on a number line; add and subtract fractions with the same denominator

### Spring Term 2

Wk	Yr	Strands	Weekly Summary
17	3	Number and place value (NPV); Mental multiplication and division (MMD)	Explore place value in 3-digit numbers including money; multiply and divide by 10 using place value grids; multiply and divide by 10 and 100; multiply and divide by 10 and 100 using money; use inverse operations
	4	Number and place value (NPV); Mental multiplication and division (MMD); Decimals, percentages and their equivalence to fractions (DPE)	Multiply and divide by 10 and 100 using 1-place decimals; multiply multiples of 10 and 100 by 1-digit numbers; add/subtract 0.1 and 1 to/from numbers with one decimal place; use negative numbers in the context of temperature; place negative numbers on a line; order positive and negative numbers
18	3	Number and place value (NPV); Mental addition and subtraction (MAS)	Add/subtract 1-digit numbers to/from 3-digit numbers; add/subtract multiples of 10 and 100; use addition and subtraction to solve word problems
	4	Number and place value (NPV); Mental addition and subtraction (MAS)	Add/subtract 1-digit numbers to/from 3 and 4-digit numbers; add/subtract multiples of 10, 100 and 1000
19	3	Written addition and subtraction (WAS); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Use compact and expanded addition to add pairs of 3-digit numbers; find a difference between pairs of numbers within the century; find a difference between pairs of numbers and check with addition; solve addition and



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			subtraction word problems; use compact decomposition to subtract 3-digit numbers
	4	Written addition and subtraction (WAS); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Add three 3-digit numbers using compact addition; use compact addition to add amounts of money; use expanded decomposition to subtract 3-digit numbers; use compact decomposition to subtract 3-digit numbers
20	3	Measurement (MEA); Geometry: position and direction (GPD)	Read and write analogue and digital times; match, read and write analogue and digital times; use timetables; calculate time intervals; understand angles as turns and right angles as quarter turns
	4	Measurement (MEA); Geometry: position and direction (GPD)	Tell time on digital and analogue clocks using 24 hour clock; convert 24-hour clock times to am and pm times; use timetables and calculate intervals; use x, y co-ordinates on a graph (first quadrant); use x, y co-ordinates to draw and translate shapes in the first quadrant
21	3	Mental multiplication and division (MMD)	Double the 4 times table to get the 8 times table; carry out varied multiplications for the 2, 3, 4, 5, 8, 10 times tables; divide within tables with remainders ( $\div$ 2, 3, 4, 5, 8 and 10); solve multiplication and division word problems
	4	Mental multiplication and division (MMD)	Begin to know multiplication and division facts for the 7 times table; know multiplication and division facts for the 9 times tables; revise all times tables up to $12 \times 10$ ; find factors of numbers up to 40; use tables facts and place value to multiply multiples of 10 and 100 by 1-digit numbers
22	3	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP)	Multiply by 4 by doubling twice; divide by 4 by halving twice; find unit fractions of quantities using division facts; find non-unit fractions of quantities using division and multiplication
	4	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP)	Use the grid method or the ladder method to multiply 3-digit numbers by 1-digit numbers; know the 11 and 12 times tables; divide 2-digit numbers by 1-digit numbers (with remainders)

Summer Term 1			
Wk	Yr	Strands	Weekly Summary
23	3	Number and place value (NPV); Measurement (MEA)	Partition 3-digit numbers; order 3-digit numbers, place them on an empty number line and find a number between; place 3-digit numbers on landmarked lines; explore place value in money; use place value to add and subtract pounds
	4	Number and place value (NPV); Measurement (MEA)	Carry out place value additions/subtractions; place 4-digit numbers on landmarked lines and round to the nearest 10/100; count on/back in steps of 25/1000; explore the history of zero and place value, learn the Roman numerals to 100
24	3	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Problem solving, reasoning and algebra (PRA)	Revise addition of 3-digit numbers; use compact addition to add pairs of 3-digit numbers (estimate totals); look for patterns and make generalisations; revise Frog subtractions across 100 (e.g. $1137 - 72$ ); revise using Frog to subtract 3-digit numbers within same century (e.g. $476 - 438$ )
	4	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Problem solving, reasoning and algebra (PRA)	Revise compact decomposition of 3-digit numbers; carry out expanded decomposition of 4-digit numbers (one move); carry out expanded then compact decomposition of four-digit numbers (two moves); use Frog to subtract pairs of 4-digit numbers; use counting up (Frog) to subtract pairs of numbers close to multiples of 1000, or when the larger number has zeroes



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25	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Written multiplication and division (WMD)	Revise doubling numbers to 50 using partitioning; revise halving numbers to 100 using partitioning; revise times tables and division facts (1x, 2x, 3x, 4x, 5x, 8x, 10x); begin to use the grid method to multiply 2-digit numbers (teens numbers then numbers < 30) by 1-digit numbers; find and test rules.
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD)	Carry out expanded and compact decomposition, including 3 moves; add any pair of 4-digit numbers using compact addition; add and subtract near multiples of 10, 100 and 1000; choose mental or written methods for addition and subtraction; solve addition and subtraction word problems
26	3	Measurement (MEA); Geometry: position and direction (GPD); Statistics (STA)	Measure in l and ml and convert between the two units; revise measuring in m, cm and mm; draw a bar chart; find perimeters; revise am and pm times; begin to tell the time to the nearest minute; tell time to the nearest minute; compare time durations
	4	Measurement (MEA); Geometry: position and direction (GPD); Statistics (STA)	Revise co-ordinates and complete polygons; find areas of rectilinear shapes by counting squares; find perimeters of rectilinear shapes in cm; calculate perimeters of rectangles in cm and m; investigate area and perimeter
27	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Add three or four 2-digit numbers using expanded or compact addition; estimate answers; find and test rules; use Frog to find the difference between amounts of money
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Measurement (MEA)	Revise numbers with one decimal place, mark them on empty number lines and round to the nearest whole; introduce numbers with 2 decimal places on place-value grids; multiply and divide 1-digit, 2-digit then 3-digit numbers by 10 and 100 to give tenths, and hundredths; find equivalent 1/100s and 0.01s, 1/10s and 0.1s; carry out place value additions and subtractions (e.g. 4.06 + 0.5, 4.56 – 0.06)

<b>Summer Term 2</b>			
<b>Wk</b>	<b>Yr</b>	<b>Strands</b>	<b>Weekly Summary</b>
28	3	Number and place value (NPV); Decimals, percentages and their equivalence to fractions (DPE); Mental multiplication and division (MMD); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Count in 50s, 100s, 4s and 8s; work out the rule for a sequence; introduce 4-digit numbers, counting above 1000; explore place value in numbers from 1000 to 2000
	4	Number and place value (NPV); Decimals, percentages and their equivalence to fractions (DPE); Mental multiplication and division (MMD); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Compare and order numbers with two decimal places; place numbers with two decimal places on landmarked lines (marked in 0.1s); add/subtract 0.1/0.01 to/from numbers with 2 decimal places; count on and back in tenths and hundredths; add/subtract multiples of 0.1/0.01; solve simple measure problems
29	3	Mental multiplication and division (MMD); Written multiplication and division (WMD)	Scale up/down by multiplying/dividing; divide numbers using times tables; divide numbers beyond times tables
	4	Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA); Written multiplication and division (WMD); Measurement (MEA)	Solve correspondence problems; solve scaling problems: convert cm to m; revise factors; multiply three numbers together; use number facts to divide multiples of 10





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30	3	Measurement (MEA); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD)	Revise units of time; recognise right angles and turns; identify if angles are greater/less than a right angle; identify perpendicular/parallel lines; count faces, vertices and edges of 3D shapes
	4	Measurement (MEA); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD)	Complete symmetrical shapes and patterns; recognise acute and obtuse angles; recognise different types of triangle; investigate angles in quadrilaterals; sort quadrilaterals
31	3	Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	Understand and find tenths; find unit fractions of quantities; find non-unit fractions of amounts; find fractions equivalent to $\frac{1}{2}$ and to $\frac{1}{4}$ ; add and subtract fractions
	4	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	Identify equivalent fractions; revise finding non-unit fractions of amounts; solve fraction word problems; divide 2-digit numbers by 1-digit numbers
32	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Measurement (MEA); Statistics (STA)	Add using compact addition; use column addition to add money; find change from £5, £10, £20 and 100 using Frog
	4	Written addition and subtraction (WAS); Measurement (MEA); Statistics (STA)	Revise 24-hour clock, am and pm; find time intervals using 24-hour clock; read and interpret a line graph; draw a line graph; convert units of time
33	3	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Add/subtract 3-digit numbers using place value; use the grid method; divide numbers; solve correspondence problems.
	4	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Use the ladder method to multiply, including 3-digit numbers; solve multiplication/division word problems; use a mix of all four operations; solve word problems.





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### Year 5 and 6 Mathematics Curriculum

#### Kingfishers



Autumn Term 1			
Wk	Yr	Strands	Weekly Summary
1	5	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS)	Explore place value in 5-digit numbers (PV additions/subtractions); add and subtract 1s, 10s, 100s, 1000s and 10 000s; place 5-digit numbers on a line and compare pairs of numbers, use < and >; revise using column addition to add pairs of 4-digit numbers; begin to use column addition to add pairs of 5-digit numbers
	6	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS)	Explore place value in 6-digit numbers (PV additions/subtractions); add and subtract 1s, 10s, 100s, 1000s, 10 000s and 100 000s; place 6-digit numbers on a line and compare pairs of numbers, use < and >; revise using column addition to add pairs of 5-digit numbers with 5-digit answers; use column addition to add pairs of 5-digit numbers with 6-digit answers
2	5	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Divide by 10 and 100 to give answers with two decimal places and understand place value; multiply and divide by 10 and 100; place two place decimal numbers on a number line and compare two numbers; add amounts of money using column addition and use rounding to check answers
	6	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Understand place value in numbers with three decimal places; multiply and divide by 10, 100 and 1000; place three place decimals on lines, round to the nearest 0.01, 0.1 or 1 and compare two numbers; add two or three amounts of money using column addition; add two or three numbers with two decimal places in a measures context (e.g. metres); use rounding to check answers
3	5	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Measurement (MEA)	Use Frog to find change from £20, £50 and £100 and to subtract amounts of money; use column subtraction (decomposition) to subtract pairs of four-digit numbers and to subtract 3-digit numbers from 4-digit numbers; choose whether to use counting up (Frog) or column subtraction (decomposition) to work out given calculations (4 digits)
	6	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Add several prices then use Frog to find change from £20, £50 and £100 and to subtract amounts of money; revise using column subtraction (decomposition) to subtract pairs of five-digit numbers; use column subtraction (decomposition) to subtract 3-digit numbers and 4-digit numbers from 5-digit numbers; choose whether to use counting up (Frog) or column subtraction (decomposition) to work out given calculations (5 digits)
4	5	Mental multiplication and division (MMD); Geometry: properties of shapes (GPS)	Classify quadrilaterals; describe properties of 2D shapes including polygons; explore multiples and divisibility; find factors of 2-digit numbers
	6	Mental multiplication and division (MMD); Geometry: properties of shapes (GPS)	Classify and sort quadrilaterals; name parts of circles (radius, diameter and circumference) and know diameter is twice radius; revise angles round a point on a line and find missing angles; know the totals of angles in triangles



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			and quadrilaterals and find missing angles; find that opposite angles are equal and find angles in polygons.
5	5	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA)	Find common multiples; find prime numbers less than 50; find equivalent fractions and simplify fractions using multiples and factors; compare fractions with related denominators; find unit and non-unit fractions of amounts
	6	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA)	Find common multiples and factors; find numbers that have a pair of prime factors; find equivalent fractions and simplify fractions using multiples and factors; compare and order fractions with unrelated denominators; find unit and non-unit fractions of amounts.

<b>Autumn Term 2</b>			
<b>Wk</b>	<b>Yr</b>	<b>Strands</b>	<b>Weekly Summary</b>
6	5	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Measurement (MEA)	Place 4- and 5-digit numbers on a line, rounding to the nearest 10, 100, 1000 or 10 000; revise using the grid method to multiply 3-digit numbers by 1-digit numbers; use short multiplication to multiply 3-digit numbers by 1-digit numbers.
	6	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Measurement (MEA)	Place 5- and 6-digit numbers on a line, rounding to the nearest 10, 100, 1000, 10 000 or 100 000; revise using short multiplication to multiply 4-digit numbers by 1-digit numbers and use rounding to approximate answers; revise using short multiplication to multiply 4-digit amounts of money by 1-digit numbers
7	5	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA); Statistics (STA)	Introduce mixed numbers and turn improper fractions into mixed numbers, and vice versa; divide above the tables using vertical layout chunking (answers less than 40 then answers up to 60); choose a written or a mental method; solve division word problems, divide using a vertical layout and round up or down after division
	6	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Statistics (STA)	Recognise fraction and decimal equivalents; use short division to divide 3- and 4-digit numbers by 1-digit numbers and by 11 and 12, writing answers as fractions then as decimals (e.g. $23\frac{3}{4}$ , 23.75); solve division word problems (including answers with fractions); use short division to divide 3-digit by 1-digit numbers and by 11 and 12; round answers up or down after division
8	5	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Decimals, percentages and their equivalence to fractions (DPE); Measurement (MEA)	Count on and back in steps of 0.01 and 0.1 from numbers with 2 decimal places; add and subtract multiples of 0.1 or 0.01 without crossing multiples of 0.1 or 1; subtract pairs of numbers with one or two decimal places using counting up (Frog)
	6	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Decimals, percentages and their equivalence to fractions (DPE); Measurement	Count on and back in steps of 0.001 and 0.01; add and subtract multiples of 0.1, 0.01 or 0.001; add and subtract multiples of 0.01 to/from numbers with two decimal places, crossing multiples of 0.1; subtract pairs of numbers with one or two decimal places by counting up from the smaller to the larger number using Frog (e.g. $2.76 - 0.83$ or $13.4 - 2.76$ )



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		(MEA)	
9	5	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Decimals, percentages and their equivalence to fractions (DPE); Measurement (MEA); Statistics (STA)	Convert between grams and kilograms, millilitres and litres (mainly to one decimal place); convert between metres and kilometres, know approximate conversion between miles and km and begin to draw line graphs and read intermediate points; know regularly used imperial units and approximate metric equivalents; calculate time intervals using the 24-hour clock (less than 2 hours); read timetables using the 24-hour clock and calculate time intervals (under 3 hours)
	6	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Measurement (MEA); Statistics (STA)	Convert between grams and kilograms, millilitres and litres; convert between metres and kilometres, know approximate conversion between miles and km and draw line graphs and read intermediate points; know regularly used imperial units and approximate metric equivalents; calculate time intervals using the 24-hour clock and add lengths of time; read timetables using the 24-hour clock and calculate time intervals (under 3 hours)
10	5	Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP); Geometry: properties of shapes (GPS)	Sort 3D shapes according to their properties and visualise 3D shapes from 2D drawings; describe properties of prisms and pyramids; compare and order fractions with related and unrelated denominators; add and subtract fractions with related denominators
	6	Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP); Geometry: properties of shapes (GPS)	Recognise nets for a cube; recognise and build pyramids and prisms, making nets; use common multiples to express fractions in the same denomination; add and subtract fractions with unrelated denominators
11	5	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Revise mental addition and subtraction (using PV and near multiples); use short multiplication to multiply 3-digit numbers and 3-digit amounts of money by 1-digit numbers; add pairs of 5-digit numbers (5-digit answers); use decomposition to subtract pairs of 5-digit numbers.
	6	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Use grid multiplication to multiply 3-digit numbers by 2-digit numbers; use long multiplication to multiply 3-digit numbers by numbers between 10 and 20 then 20 and 30; choose how to solve a mix of +, −, × and ÷ mental and written calculations; choose which operations(s) are necessary to solve single-step and multi-step word problems

Spring Term 1			
Wk	Yr	Strands	Weekly Summary
12	5	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Statistics (STA)	Explore place value in 6-digit numbers (PV additions and subtractions, compare numbers); add and subtract 1, 10, 100, 1000, 10 000 and 100 000 to/from 6-digit numbers; place 6-digit numbers on number lines and round to the nearest 100 or 1000; use negative numbers in the context of temperature and calculate rises and falls in temperature; find differences between temperatures
	6	Number and place value (NPV); Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Statistics (STA)	Explore place value in 7-digit numbers (PV additions and subtractions, compare numbers); add and subtract 1, 10, 100, 1000, 10 000, 100 000 and 1 000,000 to/from 7-digit numbers; place 7-digit numbers on number lines and round to the nearest 10 000, 100 000 or 1 000 000; use negative numbers in the context of temperature and calculate rises and falls in temperature; calculate



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			intervals across zero
13	5	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Written multiplication and division (WMD)	Use place value to add and subtract; add and subtract near multiples of 100 and 1000; use counting up (Frog) to subtract 4-digit numbers from multiples of 1000; subtract pairs of 2-digit numbers with one decimal place; use Frog to find change from £100; use column addition to add amounts; use Frog to find the difference between amounts of money
	6	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Add and subtract near multiples of powers of 10, including decimals (e.g. $\pm 2.99$ , $3.02$ ); use knowledge of the order of operations and brackets to carry out calculations; explore the order of operations using brackets (e.g. $2 + 1 \times 3 = 5$ and $(2 + 1) \times 3 = 9$ ); use Frog to find change from £100 and use column addition to add several amounts; solve multi-step word problems and use brackets to record the necessary calculations
14	5	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Measurement (MEA)	Carry out place value additions and subtractions of numbers with one or two decimal places; multiply and divide by 10, 100 and 1000 (answers from two decimal places to 6-digit whole numbers); round decimals to the nearest whole and tenth; use written addition to add numbers with one or two decimal places and use rounding to estimate totals; add two or three numbers with two decimal places
	6	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Carry out place value additions and subtractions of numbers with three decimal places; multiply and divide by 10, 100 and 1000 (answers from three decimal places to 7-digit whole numbers); round decimals to the nearest whole, tenth and hundredth; use written addition to add numbers with three decimal places in the context of measures (litres, km, kg); use rounding to estimate totals
15	5	Mental multiplication and division (MMD); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD); Measurement (MEA); Statistics (STA)	Plot points and draw polygons in two quadrants; work out new co-ordinates after a translation; reflect a shape and write the new co-ordinates; draw line graphs of times tables; draw a conversion graph of imperial to metric units and use it to read off equivalent measures
	6	Mental multiplication and division (MMD); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD); Measurement (MEA); Statistics (STA)	Plot points and draw polygons in all four quadrants; work out new co-ordinates after a translation or reflection; interpret and construct pie charts; draw a conversion graph of imperial to metric units and use it to read off equivalent measures
16	5	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA); Statistics (STA)	Find lowest common multiples and highest common factors; use mental strategies (factors and multiples) to multiply and divide by 5, 20, 6, 4 and 8; use short multiplication to multiply 4-digit numbers by 1-digit numbers; use rounding to approximate and use the commutativity of multiplication
	6	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA); Statistics (STA)	Solve problems involving rate; use mental strategies (factors and multiples) to multiply and divide by 5, 20, 6, 4 and 8; solve scaling problems; multiply and divide numbers with up to two decimal places (e.g. $0.4 \times 6$ , $3.5 \div 7$ , $5 \times 0.03$ , $0.15 \div 3$ ); use long multiplication to multiply 3-digit then 4-digit numbers by numbers between 10 and 35 and use rounding to approximate

### Spring Term 2

Wk	Yr	Strands	Weekly Summary
17	5	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and	Revise comparing fractions with related denominators using equivalence; know decimal equivalents for halves, quarters, fifths, tenths and hundredths; use mental





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		proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	division strategies to find unit fractions of amounts; find non-unit fractions of amounts; multiply and divide to solve word problems.
	6	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Statistics (STA)	Revise comparing fractions with unrelated denominators using equivalence; recognise equivalent fractions, decimals and percentages; find percentages of amounts; use mental division strategies to find non-unit fractions of amounts; calculate and interpret the mean as an average.
18	5	Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Measurement (MEA)	Multiply unit fractions and non-unit fractions by whole numbers; use short division to divide 3-digit numbers by 1-digit numbers, including where the first digit is less than the divisor; divide any remainders to give fractions
	6	Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Measurement (MEA)	Multiply pairs of fractions together; divide fractions by whole numbers; multiply and divide fractions; use long division to divide 3-digit numbers by 2-digit numbers; divide any remainders to give fractions
19	5	Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Find the perimeters of rectangles and composite shapes; work out missing lengths of sides in order to find perimeters; find areas of squares and rectangles in $\text{cm}^2$ or $\text{m}^2$ ; estimate the area of irregular shapes; calculate area from scale drawings; find volumes of cubes and cuboids
	6	Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Find the area of triangles; find the area of parallelograms; recognise that shapes with the same areas can have different perimeters and vice versa; find and estimate volumes of cubes and cuboids
20	5	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Use place value to add and subtract to/from 6-digit numbers; compare 6-digit numbers and round to the nearest 10, 100, 1000, 10 000 and 100 000; use decomposition to subtract pairs of 5-digit numbers and to subtract 4-digit numbers from 5-digit numbers; solve word problems
	6	Number and place value (NPV); Written addition and subtraction (WAS); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Measurement (MEA)	Solve problems involving similar shapes where the scale factor is known or can be found; find areas of triangles, rectangles and parallelograms; describe ratios between unequal quantities (e.g. mixing paint); solve ratio problems in context (e.g. recipes); solve problems involving unequal quantities; find percentages and link to proportion
21	5	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	Multiply and divide by 10, 100 and 1000; place numbers with two decimal places on a line, round to the nearest tenth or whole; use Frog (counting up) to subtract pairs of numbers with the same number of decimal places then with different numbers of decimal places (e.g. $3.2 - 1.78$ and $5.34 - 3.7$ ); use counting up to find change and differences between prices; solve subtraction word problems
	6	Mental addition and subtraction (MAS); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	Multiply and divide by 10, 100 and 1000; understand and use simple formulae; express missing number problems algebraically; find pairs of numbers that satisfy an equation with two unknowns and enumerate possibilities of combinations of two variables; generate and describe linear number sequences
22	5	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio	Use short multiplication to multiply 4-digit numbers (including amounts of money) by 1-digit numbers; use short division to divide 4-digit numbers by 1-digit numbers; revise column addition and subtraction of 4- and 5-digit numbers use place value to add and subtract;



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		and proportion (FRP)	add and subtract near multiples of 100, 1000 and 10 000
	6	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP)	Use short multiplication to multiply 4-digit numbers by 1-digit numbers; use short division to divide 4-digit numbers by 1-digit numbers; divide remainders to give fractions or decimals and round up or down; use long multiplication to multiply 3-digit then 4-digit numbers by numbers between 10 and 35 and use rounding to approximate; use long division to divide 3- and 4-digit numbers by 2-digit numbers

Summer Term 1			
Wk	Yr	Strands	Weekly Summary
23	5	Number and place value (NPV); Mental multiplication and division (MMD); Measurement (MEA); Statistics (STA)	Compare and order negative numbers; count back in steps through 0; add and subtract 1, 10, 100, 1000, 10 000 and 100 000 to/from 6-digit numbers; place 6-digit numbers on landmarked lines and empty lines; round 6-digit numbers to the nearest 1000, 10 000, and 100 000
	6	Number and place value (NPV); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA); Measurement (MEA); Statistics (STA)	Explore negative numbers and find intervals across 0; carry out column additions and subtractions and estimate answers; solve multi-step problems in context; use all four operations to reason and solve puzzles; explore place value and rounding up to 10 000 000
24	5	Number and place value (NPV); Mental multiplication and division (MMD); Decimals, percentages and their equivalence to fractions (DPE)	Read/write Roman numerals to 1000 (M); recognise years written in Roman numerals; revise two-place decimals and introduce three-place decimals; explore place value in numbers with three decimal places; multiply and divide by 10, 100 and 1000
	6	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Decimals, percentages and their equivalence to fractions (DPE)	Multiply and divide decimals by whole numbers; carry out long and short multiplications; use short division, including dividing by 11 and 12; use long division to divide 3- and 4-digit numbers by 2-digit numbers; explore place value in numbers with three decimal places; multiply and divide by 10, 100 and 1000, including conversion between measures
25	5	Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE)	Multiply and divide numbers mentally drawing upon known facts; solve word problems needing mental multiplication or division; introduce percentages; know equivalence between percentages and fractions; use equivalence with fractions to find percentages
	6	Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE)	Carry out mental multiplications and divisions; solve ratio problems; solve problems involving similar shapes where the scale factor is known; add and subtract fractions; multiply and divide fractions; find fractions and percentages of numbers and measures including money
26	5	Problem solving, reasoning and algebra (PRA); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD)	Measure and draw angles using a protractor; recognise acute, obtuse and reflex angles; know that angles on a straight line add to 180° and that angles around a point add to 360°, and use this to find missing angles; draw polygons to given dimensions and angles
	6	Problem solving, reasoning and algebra (PRA); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD); Measurement (MEA); Statistics (STA)	Construct and interpret bar charts, pie charts and line graphs; investigate area and perimeter; extend and describe linear number sequences; find missing angles round a point, on a straight line, in triangles and that are vertically opposite; revise reflections and translations
27	5	<b>SATS Week</b>	
	6		





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Summer Term 2			
Wk	Yr	Strands	Weekly Summary
28	5	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Fractions, ratio and proportion (FRP)	Use equivalence to compare and order fractions; add and subtract fractions and mixed numbers with related denominators; revise column subtraction of 5-digit numbers; choose counting up (Frog), counting back or column subtraction
	6	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Fractions, ratio and proportion (FRP)	Convert improper fractions to mixed numbers; add and subtract fractions and mixed numbers with related denominators; use column subtraction to subtract pairs of 5- and 6-digit numbers; choose counting up (Frog), counting back or column subtraction
29	5	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Find common multiples and common factors; solve problems requiring scaling by simple fractions; recognise and use square numbers and cube numbers; use short division to divide 4-digit numbers by 1-digit numbers, including those that leave a remainder; express remainders as fractions
	6	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA)	Find common multiples and common factors; solve problems requiring scaling by simple fractions; investigate a general statement; describe and extend sequences; find and use ratios; use a calculator and interpret the display
30	5	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD)	Use short multiplication to multiply 4-digit numbers by 1-digit numbers; use grid method to multiply 2- and 3-digit numbers by 2-digit numbers; use long multiplication to multiply pairs of 2-digit numbers (one number less than 20) and to multiply 3-digit numbers by 2-digit numbers (where the 2-digit number is less than 20)
	6	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Use short multiplication to multiply 4-digit numbers by 1-digit numbers; use grid method to multiply 2-digit numbers by 2-digit numbers; use long division to divide 3-digit numbers by 2-digit numbers; use short multiplication to multiply 4-digit numbers by 1-digit numbers; make and test general statements; use long division to divide 3-digit numbers by 2-digit numbers
31	5	Mental addition and subtraction (MAS); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA); Measurement (MEA); Statistics (STA)	Read timetables using the 24-hour clock; calculate time intervals and find a time a given number of minutes or hours and minutes later; draw and interpret line graphs and read intermediate points; introduce rate and solve problems involving rate
	6	Mental addition and subtraction (MAS); Fractions, ratio and proportion (FRP); Problem solving, reasoning and algebra (PRA); Measurement (MEA); Statistics (STA)	Read timetables using the 24-hour clock; calculate time intervals and find a time a given number of minutes or hours and minutes later; begin to learn how to draw scatter graphs; draw and interpret line graphs and read intermediate points; introduce rate and solve problems involving rate
32	5	Mental addition and subtraction (MAS); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Revise place value in numbers with three decimal places; convert between kilograms and grams, litres and millilitres, metres and kilometres; compare and order numbers with three decimal places and place on a line. Revise using counting up (Frog) to subtract pairs of numbers with two decimal places and numbers with different numbers of decimal places (1 or 2); solve subtraction word problems; use counting up to find change and differences between prices; check subtraction with addition
	6	Mental addition and subtraction (MAS); Decimals, percentages and their equivalence to fractions (DPE);	Compare measures with different numbers of decimal places; investigate recurring decimals and rounding errors on a calculator; revise using counting up (Frog) to



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		Problem solving, reasoning and algebra (PRA); Measurement (MEA)	subtract pairs of numbers with two decimal places and numbers with different numbers of decimal places (1 or 2); solve subtraction word problems; use counting up to find change and differences between prices; check subtraction with addition
33	5	Number and place value (NPV); Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	Use long multiplication to multiply pairs of 2-digit numbers together where one is $< 30$ ; use long multiplication to multiply a 3-digit number by a 2-digit number less than 30; use rounding to estimate answers; revise multiplying fractions by whole numbers and simplifying answers; multiply mixed numbers by whole numbers
	6	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	Describe and predict patterns; make and test predictions; read recurring displays on a calculator; convert fractions to decimals using a calculator
34	5	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving reasoning and algebra (PRA); Measurement (MEA)	Revise column addition of whole numbers, decimals and money; revise column subtraction of whole numbers and counting up (Frog) to subtract decimals including money and choose a method; revise short division of 4-digit numbers, expressing remainders as fractions; solve single and multi-step problems working out which calculation(s) are necessary; understand and use equivalence
	6	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving reasoning and algebra (PRA); Measurement (MEA)	Revise column addition of whole numbers, decimals and money; revise column subtraction of whole numbers and counting up (Frog) to subtract decimals including money and choose a method; interpret a rounding error, (e.g. 6.9999999 as 7) and read recurring displays (e.g. know that 0.3333333 represents a third); solve single and multi-step problems working out which calculation(s) are necessary; use the memory button on a calculator

### Useful Maths Websites:

- Third Space Learning Maths Hub (resources from maths tuition experts)
- BBC Bitesize – KS2 Maths
- Primary Games Arena (games)
- Hit the Button (times tables and number bonds)
- Math is Fun (worksheets)
- Primary Resources
- NRich (problem solving and challenge questions)
- TT Rockstars (competitive times tables)
- Maths Zone (portal to lots of maths games and quizzes)
- My Maths