

Note: Each of the seven blocks is split across 2 or 3 terms as part of our spiral curriculum. The objectives for the block have been split across those 2 terms but this is only a suggestion – the curriculum will need adjusting to the needs of different groups who may need to revisit topics or to cover the objectives in a different order. Some objectives are repeated as they will be explored in greater depth when repeated. Objectives in italics are additions to the objectives or suggested ways of splitting an objective.

Year 1	Autumn A	Spring A	Summer A	Autumn B	Spring B	Summer B
	Why is Richmond	What's it made	How do people	How do I care	What makes a	Why is our
	Special?	of and why?	tell their stories?	for my body and	good home?	environment
				mind?		precious?
NUMBER	count, read and	count, read and	count, read and	count, read and	count, read and	count, read and
Number and	write numbers to	write numbers to	write numbers to	write numbers to	write numbers to	write numbers to
place value	10 in numerals	40 in numerals	100 in numerals	10 in numerals	40 in numerals	100 in numerals
	identify and	identify and	identify and	identify and	identify and	identify and
	represent	represent	represent	represent	represent	represent
	numbers using	numbers using	numbers using	numbers using	numbers using	numbers using
	objects and	objects and	objects and	objects and	objects and	objects and
	pictorial	pictorial	pictorial	pictorial	pictorial	pictorial
	representations	representations	representations	representations	representations	representations
	including the	including the	including the	including the	including the	including the
	number line	number line	number line	number line	number line	number line
	count to and	count to and		count to and	count to and	
	across 10,	across 40,		across 10,	across 40,	
	forwards and	forwards and		forwards and	forwards and	
	backwards,	backwards,		backwards,	backwards,	
	beginning with 0	beginning with 0		beginning with 0	beginning with 0	
	or 1, or from any	or 1, or from any		or 1, or from any	or 1, or from any	
	given number	given number		given number	given number	



	given a number, identify one more and one less	given a number, identify one more and one less		given a number, identify one more and one less	given a number, identify one more and one less	
	use the language of: equal to, more than, less than (fewer), most, least	use the language of: equal to, more than, less than (fewer), most, least		use the language of: equal to, more than, less than (fewer), most, least	use the language of: equal to, more than, less than (fewer), most, least	
NUMBER Addition and subtraction	represent and use number bonds and related subtraction facts within 10		represent and use number bonds and related subtraction facts within 20	represent and use number bonds and related subtraction facts within 10		represent and use number bonds and related subtraction facts within 20
	read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs	read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs	read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs	read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs



	add and subtract one- digit and two- digit numbers to 10, including zero	add and subtract one- digit and two- digit numbers to 20, including zero	add and subtract one- digit and two- digit numbers to 20, including zero	add and subtract one- digit and two- digit numbers to 10, including zero	add and subtract one- digit and two- digit numbers to 20, including zero	add and subtract one- digit and two- digit numbers to 20, including zero
	solve one-step problems involving addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9	solve one-step problems involving addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9		solve one-step problems involving addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9	solve one-step problems involving addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9	
NUMBER Multiplication and division	count in multiples of twos		count in multiples of twos, fives and tens	count in multiples of twos		count in multiples of twos, fives and tens
	solve one-step problems involving multiplication		solve one-step problems involving multiplication	solve one-step problems involving multiplication		solve one-step problems involving multiplication



	and division, by		and division, by	and division, by		and division, by
	calculating the		calculating the	calculating the		calculating the
	answer using		answer using	answer using		answer using
	concrete		concrete	concrete		concrete
	objects, pictorial		objects, pictorial	objects, pictorial		objects, pictorial
	representations		representations	representations		representations
	and arrays with		and arrays with	and arrays with		and arrays with
	the support of a		the support of a	the support of a		the support of a
	teacher		teacher	teacher		teacher
NUMBER		recognise, find	recognise, find		recognise, find	recognise, find
Fractions,		and name a half	and name a		and name a half	and name a
decimals and		as one of two	quarter as one		as one of two	quarter as one
percentages		equal parts of	of four equal		equal parts of	of four equal
		an object,	parts of an		an object,	parts of an
		shape or	object, shape or		shape or	object, shape or
		quantity	quantity		quantity	quantity
		solve one-step	solve one-step		solve one-step	solve one-step
		problems	problems		problems	problems
		involving	involving		involving	involving
		multiplication	multiplication		multiplication	multiplication
		and division, by	and division, by		and division, by	and division, by
		calculating the	calculating the		calculating the	calculating the
		answer using	answer using		answer using	answer using
		concrete	concrete		concrete	concrete
		objects, pictorial	objects, pictorial		objects, pictorial	objects, pictorial
		representations	representations		representations	representations



MEASUREMENT	compare, describe and solve practical problems for: lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half)	and arrays with the support of a teacher compare, describe and solve practical problems for: mass or weight (e.g. heavy/light, heavier than, lighter than)	and arrays with the support of a teacher compare, describe and solve practical problems for: capacity/volum e (full/empty, more than, less than, quarter)	compare, describe and solve practical problems for: lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half)	and arrays with the support of a teacher compare, describe and solve practical problems for: mass or weight (e.g. heavy/light, heavier than, lighter than)	and arrays with the support of a teacher compare, describe and solve practical problems for: capacity/volum e (full/empty, more than, less than, quarter)
	measure and begin to record the following: lengths and heights	measure and begin to record the following: mass/weight	measure and begin to record the following: capacity and volume	measure and begin to record the following: lengths and heights	measure and begin to record the following: mass/weight	measure and begin to record the following: capacity and volume
	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial



	representations, and missing number problems. sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening	representations, and missing number problems. recognise and use language relating to dates, including days of the week, weeks, months and years	representations, and missing number problems.  tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	representations, and missing number problems. sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening	representations, and missing number problems. recognise and use language relating to dates, including days of the week, weeks, months and years	representations, and missing number problems.  tell the time to the hour and half past the hour and draw the hands on a clock face to show these times
	recognise and know the value of different denominations of coins and notes	recognise and know the value of different denominations of coins and notes	compare, describe and solve practical problems for: time (quicker, slower, earlier, later)	recognise and know the value of different denominations of coins and notes	recognise and know the value of different denominations of coins and notes	compare, describe and solve practical problems for: time (quicker, slower, earlier, later)
GEOMETRY	recognise and name common		recognise and name common	recognise and name common		recognise and name common



	2-D, including [for example] rectangles (including squares), circles, triangles. recognise and name common 3-D shapes, including [for example] cuboids (including cubes), pyramids and spheres.		2-D, including [for example] rectangles (including squares), circles, triangles. recognise and name common 3-D shapes, including [for example] cuboids (including cubes), pyramids and spheres.	2-D, including [for example] rectangles (including squares), circles, triangles. recognise and name common 3-D shapes, including [for example] cuboids (including cubes), pyramids and spheres.		2-D, including [for example] rectangles (including squares), circles, triangles. recognise and name common 3-D shapes, including [for example] cuboids (including cubes), pyramids and spheres.
STATISTICS	describe position, direction and movement, including whole, half, quarter and three-quarter turns.		describe position, direction and movement, including whole, half, quarter and three-quarter turns.	describe position, direction and movement, including whole, half, quarter and three-quarter turns.		describe position, direction and movement, including whole, half, quarter and three-quarter turns.
Year 2	Autumn A	Spring A	Summer A	Autumn B	Spring B	Summer B



	Why is Richmond Special?	What's it made of and why?	How do people tell their stories?	How do I care for my body and mind?	What makes a good home?	Why is our environment precious?
NUMBER Number and place value	count in steps of 2, 3, and 5 from 0	count in tens from any number, forward or backward	count in steps of 2, 3, and 5 from 0 and count in tens from any number, forward or backward	count in steps of 2, 3, and 5 from 0	count in tens from any number, forward or backward	count in steps of 2, 3, and 5 from 0 and count in tens from any number, forward or backward
	compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers from 0 up to 100; use <, > and = signs	identify, represent and estimate numbers using different representations, including the number line	compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers from 0 up to 100; use <, > and = signs	identify, represent and estimate numbers using different representations, including the number line
	read and write numbers to at least 100 in numerals and in words	read and write numbers to at least 100 in numerals and in words	use place value and number facts to solve problems	read and write numbers to at least 100 in numerals and in words	read and write numbers to at least 100 in numerals and in words	use place value and number facts to solve problems
	recognise the place value of each digit in a two-digit	recognise the place value of each digit in a two-digit		recognise the place value of each digit in a two-digit	recognise the place value of each digit in a two-digit	



	101 1100 lp 0 11 / h 0 10 f	12	 in inches	in unala air /haine
	number (tens,	number (tens,	number (tens,	number (tens,
	ones)	ones)	ones)	ones)
	identify,	identify,	identify,	identify,
	represent and	represent and	represent and	represent and
	estimate	estimate	estimate	estimate
	numbers using	numbers using	numbers using	numbers using
	different	different	different	different
	representations,	representations,	representations,	representations,
	including the	including the	including the	including the
	number line	number line	number line	number line
	use place value	use place value	use place value	use place value
	and number	and number	and number	and number
	facts to solve	facts to solve	facts to solve	facts to solve
	problems	problems	problems	problems
NUMBER	recall and use	recall and use	recall and use	recall and use
Addition and	addition and	addition and	addition and	addition and
subtraction	subtraction facts	subtraction facts	subtraction facts	subtraction facts
	to 20 fluently,	to 20 fluently,	to 20 fluently,	to 20 fluently,
	and derive and	and derive and	and derive and	and derive and
	use related facts	use related facts	use related facts	use related facts
	up to 100	up to 100	up to 100	up to 100
	show that		show that	
	addition of two		addition of two	
	numbers can be		numbers can be	
	done in any		done in any	
	order		order ,	



(commutative) and subtraction of one number from another cannot add numbers using concrete objects, pictorial representations, and mentally, including: a two- digit number and ones	add numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers	add numbers using concrete objects, pictorial representations, and mentally, including: • a two-digit number and ones • a two-digit number and tens • two two-digit numbers three one-digit numbers	(commutative) and subtraction of one number from another cannot add numbers using concrete objects, pictorial representations, and mentally, including: a two- digit number and ones	add numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers	add numbers using concrete objects, pictorial representations, and mentally, including: • a two-digit number and ones • a two-digit number and tens • two two-digit numbers three one-digit numbers
add numbers using concrete objects, pictorial representations, and mentally,	add numbers using concrete objects, pictorial representations, and mentally,		add numbers using concrete objects, pictorial representations, and mentally,	add numbers using concrete objects, pictorial representations, and mentally,	



including: a two-digit number and tens  Subtract	including: adding three one-digit numbers subtract	subtract	including: a two-digit number and tens  Subtract	including: adding three one-digit numbers subtract	subtract
numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones	numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers	numbers using concrete objects, pictorial representations, and mentally, including:  • a two-digit number and ones  • a two-digit number and tens two two-digit numbers	numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones	numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers	numbers using concrete objects, pictorial representations, and mentally, including:  • a two-digit number and ones  • a two-digit number and tens two two-digit numbers
Subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-			Subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-		



	digit number and tens	salva problems		digit number and tens	salva problems	
	solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures	solve problems with addition and subtraction: applying their increasing knowledge of mental and written methods		solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures	solve problems with addition and subtraction: applying their increasing knowledge of mental and written methods	
	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems
NUMBER	recall and use multiplication		recall and use multiplication	recall and use multiplication		recall and use multiplication



Multiplication	and division	and division	and division	 and division
and division	facts for the 2, 5			
GILLON GILLANDI GILL	and 10	and 10	and 10	and 10
	multiplication	multiplication	multiplication	multiplication
	tables, including	tables, including	tables, including	tables, including
	recognising odd	recognising odd	recognising odd	recognising odd
	and even	and even	and even	and even
	numbers	numbers	numbers	numbers
	calculate	calculate	calculate	calculate
	mathematical	mathematical	mathematical	mathematical
	statements for	statements for	statements for	statements for
	multiplication	multiplication	multiplication	multiplication
	and division	and division	and division	and division
	within the	within the	within the	within the
	multiplication	multiplication	multiplication	multiplication
	tables and write	tables and write	tables and write	tables and write
	them using the	them using the	them using the	them using the
	multiplication	multiplication	multiplication	multiplication
	(x), division (÷)	(x), division (÷)	(x), division (÷)	(x), division (÷)
	and =	and =	and =	and =
	show that		show that	
	multiplication of		multiplication of	
	two numbers		two numbers	
	can be done in		can be done in	
	any order		any order	
	(commutative)		(commutative)	



NUMBER Fractions, decimals and percentages	and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	recognise, find, name and write fractions 1/3,1/4 ,2/4 and 3/4 of a length, shape, set of objects or quantity	write simple fractions for example, ½ of 6 = 3	and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	recognise, find, name and write fractions 1/3,1/4 ,2/4 and 3/4 of a length, shape, set of objects or quantity	write simple fractions for example, ½ of 6 = 3
			recognise the equivalence of 2/4 and 1/2			recognise the equivalence of 2/4 and ½



MEASUREMENT	choose and use	choose and use	choose and use	choose and use	choose and use	choose and use
	appropriate	appropriate	appropriate	appropriate	appropriate	appropriate
	standard units to	standard units to	standard units to	standard units to	standard units to	standard units to
	estimate and	estimate and	estimate and	estimate and	estimate and	estimate and
	measure	measure	measure	measure	measure	measure
	length/height in	length/height in	temperature	length/height in	length/height in	temperature
	any direction	any direction	(°C) and	any direction	any direction	(°C) and
	(m/cm); to the	(m/cm); mass	capacity	(m/cm); to the	(m/cm); mass	capacity
	nearest	(kg/g); to the	(litres/ml) to the	nearest	(kg/g); to the	(litres/ml) to the
	appropriate unit,	nearest	nearest	appropriate unit,	nearest	nearest
	using rulers and	appropriate unit,	appropriate unit,	using rulers and	appropriate unit,	appropriate unit,
	scales	using rulers and	using	scales	using rulers and	using
		scales	thermometers		scales	thermometers
			and measuring			and measuring
			vessels			vessels
	compare and	Compare and	compare and	compare and	Compare and	compare and
	order length and	order mass, and	order	order length and	order mass, and	order
	record the	record the	volume/capacit	record the	record the	volume/capacit
	results using >, < ,	results using	y and record the	results using >, < ,	results using	y and record the
	=	>,<,=	results using >, < ,	=	>,<,=	results using >, < ,
			=			=
	recognise and	compare and		recognise and	compare and	
	use symbols for	sequence		use symbols for	sequence	
	pounds (£) and	intervals of time		pounds (£) and	intervals of time	
	pence (p);	tell and write the		pence (p);	tell and write the	
	combine	time to five		combine	time to five	



amounts to make a particular value	minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.	amounts to make a particular value	minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.	
find different combinations of coins that equal the same amounts of money	Know the number of minutes in an hour and the number of hours in a day	find different combinations of coins that equal the same amounts of money	Know the number of minutes in an hour and the number of hours in a day	
solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change		solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change		



GEOMETRY	identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line	use mathematical vocabulary to describe position, direction and movement including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three- quarter turns (clockwise and anti- clockwise), and movement in a straight line	identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line	use mathematical vocabulary to describe position, direction and movement including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three- quarter turns (clockwise and anti- clockwise), and movement in a straight line
	compare and sort common 2-D shapes and everyday objects.	order and arrange combinations of mathematical objects in patterns	compare and sort common 2-D shapes and everyday objects.	order and arrange combinations of mathematical objects in patterns



	identify and describe the properties of 3D shapes, including the number of edges, vertices and faces			identify and describe the properties of 3D shapes, including the number of edges, vertices and faces	
	compare and sort common 3-D shapes and everyday objects.			compare and sort common 3- D shapes and everyday objects.	
	Identify symmetry in a vertical line			Identify symmetry in a vertical line	
STATISTICS		interpret and construct simple pictograms, tally charts, block diagrams and simple tables	interpret and construct simple pictograms, tally charts, block diagrams and simple tables		
		ask and answer simple questions by counting the number of	ask and answer questions about totalling and comparing		



		objects in each	categorical			
		category and	data			
		sorting the				
		categories by				
		quantity				
Note: Each of th	e seven blocks is s	plit across 2 terms a	is part of our spiral o	curriculum. The obje	ectives for the block	k have been split
	-	a suggestion – the	-			-
	_	e objectives in a dit				-
	-	jectives in italics ar		-	_	-
Year 3	Autumn A	Spring A	Summer A	Autumn B	Spring B	Summer B
	Why is Richmond		How do we get	How do I care	Why is history	How can I have
	special?	us and why does	our message	for my body and	worth knowing?	my say?
	special.	it matter?	across?	mind?	worm knowing.	illy say.
		Sci – rocks and	ucioss:	Sci – skeleton		
		magnets		and muscles		
\	1.5	1.5		Digestion	1.5	
NUMBER	count from 0 in	count from 0 in		count from 0 in	count from 0 in	
Number and	multiples of 4, 8,	multiples of 4, 8,		multiples of 4, 8,	multiples of 4, 8,	
place value	(50 and 1000	50 and 100		(50 and 1000	50 and 100	
	read and write	solve number		read and write	solve number	
	numbers up to	problems and		numbers up to	problems and	
	1000 in numerals	practical		1000 in numerals	practical	
	and words	problems		and words	problems	
		involving these			involving these	
		ideas			ideas	



	compare and	find 10 or 100	compare and	find 10 or 100	
	order numbers	more or less than	order numbers	more or less than	
	up to 1000	a given number	up to 1000	a given number	
	recognise the		recognise the	- C	
	place value of		place value of		
	each digit in a		each digit in a		
	three-digit		three-digit		
	number		number		
	(hundreds, tens,		(hundreds, tens,		
	ones)		ones)		
	identify,		identify,		
	represent and		represent and		
	estimate		estimate		
	numbers using		numbers using		
	different		different		
	representations		representations		
NUMBER	add and	add and	add and	add and	
Addition and	subtract	subtract	subtract	subtract	
subtraction	numbers	numbers	numbers	numbers	
	mentally,	mentally,	mentally,	mentally,	
	including a	including a	including a	including a	
	three-digit	three-digit	three-digit	three-digit	
	number and	number and	number and	number and	
	ones, a three-	ones, a three-	ones, a three-	ones, a three-	
	digit number	digit number	digit number	digit number	
	and tens, three-	and tens, three-	and tens, three-	and tens, three-	



digit number	digit number	digit number	digit number	
		_	_	
and hundreds	and hundreds	and hundreds	and hundreds	
add numbers	add numbers	add numbers	add numbers	
with up to three				
digits, using	digits, using	digits, using	digits, using	
formal written	formal written	formal written	formal written	
methods of	methods of	methods of	methods of	
columnar	columnar	columnar	columnar	
addition	addition	addition	addition	
subtract	subtract	subtract	subtract	
numbers with up	numbers with up	numbers with up	numbers with up	
to three digits,	to three digits,	to three digits,	to three digits,	
using formal	using formal	using formal	using formal	
written methods	written methods	written methods	written methods	
of columnar	of columnar	of columnar	of columnar	
subtraction	subtraction	subtraction	subtraction	
solve problems,	solve problems,	solve problems,	solve problems,	
including missing	including missing	including missing	including missing	
number	number	number	number	
problems, using	problems, using	problems, using	problems, using	
number facts,	number facts,	number facts,	number facts,	
place value,	place value,	place value,	place value,	
and more	and more	and more	and more	
complex	complex	complex	complex	
addition and	addition and	addition and	addition and	
subtraction	subtraction	subtraction	subtraction	





and division	and division	and division	and division	
facts for the 3, 4				
(and 8	and 8	and 8	and 8	
multiplication	multiplication	multiplication	multiplication	
tables)	tables	tables	tables	
estimate the	estimate the	estimate the	estimate the	
answer to a	answer to a	answer to a	answer to a	
calculation and	calculation and	calculation and	calculation and	
use inverse	use inverse	use inverse	use inverse	
operations to	operations to	operations to	operations to	
check answers	check answers	check answers	check answers	
solve problems,	solve problems,	solve problems,	solve problems,	
including missing	including missing	including missing	including missing	
number	number	number	number	
problems,	problems,	problems,	problems,	
involving	involving	involving	involving	
multiplication	multiplication	multiplication	multiplication	
and division,	and division,	and division,	and division,	
(including	including	including	including	
positive integer	positive integer	positive integer	positive integer	
scaling problems	scaling problems	scaling problems	scaling problems	
and	and	and	and	
correspondence	correspondence	correspondence	correspondence	
problems in	problems in	problems in	problems in	
which n objects	which n objects	which n objects	which n objects	



	are connected to m objects)	are connected to m objects		are connected to m objects	are connected to m objects	
NUMBER Fractions, decimals and percentages	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small		recognise and show, using diagrams, equivalent fractions with small denominators	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small		recognise and show, using diagrams, equivalent fractions with small denominators
	denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators		compare and order unit fractions, and fractions with the same denominators	denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators		compare and order unit fractions, and fractions with the same denominators
	count up and down in tenths;		Add/subtract fractions with the same denominator within one whole	count up and down in tenths;		Add/subtract fractions with the same denominator within one whole



			(e.g. 5/7 + 1/7 = 6/7)			(e.g. 5/7 + 1/7 = 6/7)
	recognise that tenths arise from dividing an object into 10 equal parts and in dividing one- digit numbers or quantities by 10		Solve problems that involve all of the above	recognise that tenths arise from dividing an object into 10 equal parts and in dividing one- digit numbers or quantities by 10		Solve problems that involve all of the above
MEASUREMENT		measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacit y (I/m)	estimate and read time with increasing accuracy to the nearest minute,		measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacit y (I/m)	estimate and read time with increasing accuracy to the nearest minute,
		add and subtract amounts of money to give change, using both £ and p in practical contexts	Record and compare time in terms of seconds, minutes, hours and o'clock		add and subtract amounts of money to give change, using both £ and p in practical contexts	Record and compare time in terms of seconds, minutes, hours and o'clock



		measure the perimeter of simple 2-D shapes	use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight		measure the perimeter of simple 2-D shapes	use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight
		tell and write the time from an analogue clock, including Roman numerals from I to XII, and 12-hour and 24-hour clocks			tell and write the time from an analogue clock, including Roman numerals from I to XII, and 12-hour and 24-hour clocks	
GEOMETRY	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them		Recognise angles as a property of a shape or description of a turn	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them		Recognise angles as a property of a shape or description of a turn
	Identify horizontal and		Identify right angles,	Identify horizontal and		Identify right angles,



	vertical lines and pairs of perpendicular and parallel lines		recognise that two right angles make a half turn, three make three quarters of a turn and a complete turn; identify whether angles are greater or less than a right angle.	vertical lines and pairs of perpendicular and parallel lines		recognise that two right angles make a half turn, three make three quarters of a turn and a complete turn; identify whether angles are greater or less than a right angle.
STATISTICS		interpret and present data using bar charts, pictograms and tables	solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables		interpret and present data using bar charts, pictograms and tables	solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables
Year 4	Autumn A	Spring A	Summer A	Autumn B	Spring B	Summer B



	Why is Richmond special?	What is beneath us and why does it matter? Sci – rocks and magnets	How do we get our message across?	How do I care for my body and mind? Sci – skeleton and muscles Digestion	Why is history worth knowing?	How can I have my say?
NUMBER Number and place value	count in multiples of 6, 7, 9, (25 and 1000)	count in multiples of 6, 7, 9, 25 and 1000		count in multiples of 6, 7, 9, (25 and 1000)	count in multiples of 6, 7, 9, 25 and 1000	
	find 1000 more or less than a given number	read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value		find 1000 more or less than a given number	read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	
	Order and compare numbers beyond 1000	count backwards through zero to include negative numbers		Order and compare numbers beyond 1000	count backwards through zero to include negative numbers	
	recognise the place value of	round any number to the		recognise the place value of	round any number to the	



four- num (tho hund and	-digit c nber usands, dreds, tens, ones)	nearest 10, 100 or 1000	each digit in a four-digit number (thousands, hundreds, tens, and ones)	nearest 10, 100 or 1000	
divident or two numers and identifications of the digital content of	ding a one- vo- digit onber by 10	round decimals with one decimal place to the nearest whole number	find the effect of dividing a one- or two- digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	round decimals with one decimal place to the nearest whole number	
iden repression estin num diffe	ntify, sesent and commate phoers using increase increase increase increase in the sesent at its sese	solve number and practical problems that nvolve all of the above and with acreasingly arge positive numbers	identify, represent and estimate numbers using different representations	solve number and practical problems that involve all of the above and with increasingly large positive numbers	



	solve number and practical problems that involve all of the above and with increasingly large positive numbers		solve number and practical problems that involve all of the above and with increasingly large positive numbers		
NUMBER Addition and subtraction (objectives repeated)	add and subtract numbers mentally, including a three-digit number and ones, a three-digit number and tens, three-digit number and hundreds	add and subtract numbers mentally, including a three-digit number and ones, a three-digit number and tens, three-digit number and hundreds	add and subtract numbers mentally, including a three-digit number and ones, a three- digit number and tens, three- digit number and hundreds	add and subtract numbers mentally, including a three-digit number and ones, a three- digit number and tens, three- digit number and hundreds	
	add numbers with up to 4 digits using the formal written methods of columnar	add numbers with up to 4 digits using the formal written methods of columnar	add numbers with up to 4 digits using the formal written methods of columnar	add numbers with up to 4 digits using the formal written methods of columnar	



additio	on where addition where		addition where	addition where	
approp	oriate appropriate	e appropriate	appropriate	appropriate	
subtrac	ct subtract	subtract	subtract	subtract	
numbe	ers with up   numbers with up	ith up   numbers with up	numbers with up	numbers with up	
to 4 dig	gits using to 4 digits using	using to 4 digits using	to 4 digits using	to 4 digits using	
the forr	mal the formal	the formal	the formal	the formal	
written	methods written methods	thods written methods	written methods	written methods	
of colu	mnar of columnar	ar of columnar	of columnar	of columnar	
subtrac	ction subtraction	subtraction	subtraction	subtraction	
where	where	where	where	where	
approp	oriate appropriate	e appropriate	appropriate	appropriate	
solve a	addition solve addition	ion solve addition	solve addition	solve addition	
and sul	btraction and subtraction	ction and subtraction	and subtraction	and subtraction	
two-ste	ep two-step	two-step	two-step	two-step	
probler	ms in problems in	n problems in	problems in	problems in	
contex	contexts,	contexts,	contexts,	contexts,	
decidir	ng which deciding which	hich deciding which	deciding which	deciding which	
operati	ions and operations and	and operations and	operations and	operations and	
method	ds to use methods to use	use methods to use	methods to use	methods to use	
and wh	ny and why	and why	and why	and why	
Estimat	te and Estimate and	nd Estimate and	Estimate and	Estimate and	
use inve	erse use inverse	use inverse	use inverse	use inverse	
operati	ions to operations to	to operations to	operations to	operations to	
check	answers check answers	wers check answers	check answers	check answers	
to a co	alculation to a calculation	ation to a calculation	to a calculation	to a calculation	



NUMBER	use place value,	recognise and	use place value,	recognise and	
Multiplication	known and	use factor pairs	known and	use factor pairs	
and division	derived facts to	and	derived facts to	and	
aria aivisiori					
	multiply and	commutativity in	multiply and	commutativity in	
	divide mentally,	mental	divide mentally,	mental	
	including:	calculations	including:	calculations	
	multiplying by 0		multiplying by 0		
	and 1; dividing		and 1; dividing		
	by 1; multiplying		by 1; multiplying		
	together three		together three		
	numbers		numbers		
	multiply two-	multiply two-digit	multiply two-digit	multiply two-digit	
	digit (and three-	and three-digit	(and three-)digit	and three-digit	
	Jdigit numbers	numbers by a	numbers by a	numbers by a	
	by a one-digit	one-digit	one-digit	one-digit	
	number using	number using	number using	number using	
	formal written	formal written	formal written	formal written	
	layout	layout	layout	layout	
	recall	recall	recall	recall	
	multiplication	multiplication	multiplication	multiplication	
	and division	and division	and division	and division	
	facts for	facts for	facts for	facts for	
	multiplication	multiplication	multiplication	multiplication	
	tables up to 12 ×	tables up to 12 ×	tables up to 12 ×	tables up to 12 ×	
	12	12	12	12	



	solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, (integer scaling problems and harder correspondence problems such as n objects are connected to m objects)	solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects		solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, (integer scaling problems and harder correspondence problems such as n objects are connected to m objects)	solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	
NUMBER Fractions, decimals and percentages	count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and		recognise and show, using diagrams, families of common equivalent fractions	count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and		recognise and show, using diagrams, families of common equivalent fractions



dividing tenths by ten  compare numbers with the same number of decimal places up to two decimal places	add and subtract fractions with the same denominator	dividing tenths by ten compare numbers with the same number of decimal places up to two decimal places	add and subtract fractions with the same denominator
recognise and write decimal equivalents of any number of tenths or hundredths	solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including nonunit fractions where the answer is a whole number	recognise and write decimal equivalents of any number of tenths or hundredths	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
recognise and write decimal equivalents to 1/4; 1/2; 3/4	solve simple measure and money problems involving	recognise and write decimal equivalents to 1/4; 1/2; 3/4	solve simple measure and money problems involving



			fractions and decimals to two decimal places.			fractions and decimals to two decimal places.
	solve simple measure and money problems involving (fractions and) decimals to two decimal places.			solve simple measure and money problems involving (fractions and) decimals to two decimal places.		
MEASUREMENT		estimate, compare and calculate different measures, including money in pounds and pence	Convert between different units of measure [hour to minute]		estimate, compare and calculate different measures, including money in pounds and pence	Convert between different units of measure [hour to minute]
		Convert between different units of measure [kilometre to metre;	read, write and convert time between analogue and digital 12- and 24-hour clocks		Convert between different units of measure [kilometre to metre;	read, write and convert time between analogue and digital 12- and 24-hour clocks
		measure and calculate the	solve problems involving		measure and calculate the	solve problems involving



		perimeter of a rectilinear figure (including squares) in centimetres and metres	converting from hours to minutes; minutes to seconds; years to months; weeks to days.		perimeter of a rectilinear figure (including squares) in centimetres and metres	converting from hours to minutes; minutes to seconds; years to months; weeks to days.
		Find the area of rectilinear shapes by counting squares			Find the area of rectilinear shapes by counting squares	
GEOMETRY	compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes		identify acute and obtuse angles; compare and order angles up to two right angles by size	compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes		identify acute and obtuse angles; compare and order angles up to two right angles by size
	identify lines of symmetry in 2-D shapes presented in		describe positions on a 2- D grid as coordinates in	identify lines of symmetry in 2-D shapes presented in		describe positions on a 2- D grid as coordinates in



	different		the first	different		the first
	orientations		quadrant	orientations		quadrant
	complete a		describe	complete a		describe
	simple		movements	simple		movements
	symmetric figure		between	symmetric figure		between
	with respect to a		positions as	with respect to a		positions as
	specific line of		translations of a	specific line of		translations of a
	symmetry		given unit to the	symmetry		given unit to the
			left/right and			left/right and
			up/down			up/down
			plot specified			plot specified
			points and draw			points and draw
			sides to			sides to
			complete a			complete a
			given polygon			given polygon
STATISTICS		interpret and	solve		interpret and	solve
		present discrete	comparison,		present discrete	comparison,
		and continuous	sum and		and continuous	sum and
		data using	difference		data using	difference
		appropriate	problems using		appropriate	problems using
		graphical	information		graphical	information
		methods,	presented in bar		methods,	presented in bar
		including bar	charts,		including bar	charts,
		charts and line	pictograms,		charts and line	pictograms,
		graphs	tables and other		graphs	tables and other
			graphs			graphs



Note: Each of the seven blocks is split across 2 terms as part of our spiral curriculum. The objectives for the block have been split across those 2 terms but this is only a suggestion – the curriculum will need adjusting to the needs of different groups who may need to revisit topics or to cover the objectives in a different order. Some objectives are repeated as they will be explored in greater depth when repeated. Objectives in italics are additions to the objectives or suggested ways of splitting an objective.

Year 5	Autumn A Why is Richmond special?	Spring A Where does it come from and where does it go?	Summer A How do words make us feel?	Autumn B How do I care for my body and mind?	Spring B What legacy will I leave behind?	Summer B What makes a colourful world?
NUMBER Number and place value	Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0	Round any number up to 1,000,000 to the nearest 10 100 1,000 10,000 and 100,000 Round decimals with two decimal places to the nearest whole number and to one decimal place		Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000  Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0	Round any number up to 1,000,000 to the nearest 10 100 1,000 10,000 and 100,000  Round decimals with two decimal places to the nearest whole number and to one decimal place	



	Read, write, order and compare numbers to at least 1 000 000and determine the value of each digit	Solve number problems and practical problems that involve all of the above	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 all of the above	
	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	
NUMBER Addition and subtraction (objectives repeated)	Add and subtract numbers mentally with increasingly large numbers	Add and subtract numbers mentally with increasingly large numbers	Add and subtract numbers mentally with increasingly large numbers	Add and subtract numbers mentally with increasingly large numbers	
	Add whole numbers with (more than) 4 digits, including using formal	Add and subtract whole numbers with more than 4 digits, including using formal	Add and subtract whole numbers with (more than) 4 digits, including	Add and subtract whole numbers with more than 4 digits, including using formal written	



written methods (columnar addition)	written methods (columnar addition and subtraction)	using formal written methods (columnar addition and subtraction)	methods (columnar addition and subtraction)	
subtract whole numbers with (more than) 4 digits, including using formal written methods (columnar subtraction)				
Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why	
Use rounding to check answers to calculations and determine,	Use rounding to check answers to calculations and determine, in the	Use rounding to check answers to calculations and determine,	Use rounding to check answers to calculations and determine, in the	



NUMBER Multiplication and division	in the context of a problem, levels of accuracy Multiply and divide numbers mentally, drawing upon known facts	context of a problem, levels of accuracy  Multiply and divide numbers mentally, drawing upon known facts	in the context of a problem, levels of accuracy Multiply and divide numbers mentally, drawing upon known facts	context of a problem, levels of accuracy  Multiply and divide numbers mentally, drawing upon known facts		
		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 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 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 numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers	
		Divide numbers up to 4 digits by a one-digit number using the formal written method	Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and	Divide numbers up to 4 digits by a one-digit number using the formal written method	Divide numbers up to 4 digits by a one- digit number using the formal written method of short division and	



of short division	interpret	of short division	interpret remainders	
(and interpret	remainders	(and interpret	appropriately for	
remainders	appropriately for	remainders	the context	
appropriately	the context	appropriately		
for the context)		for the context)		
Use rounding to	Use rounding to	Use rounding to	Use rounding to	
check answers	check answers to	check answers	check answers to	
to calculations	calculations and	to calculations	calculations and	
and determine,	determine, in the	and determine,	determine, in the	
in the context of	context of a	in the context of	context of a	
a problem,	problem, levels of	a problem,	problem, levels of	
levels of	accuracy	levels of	accuracy	
accuracy		accuracy		
Identify multiples	Solve problems	Identify multiples	Solve problems	
and factors,	involving	and factors,	involving	
including finding	multiplication and	including finding	multiplication and	
all factor pairs of	division, including	all factor pairs of	division, including	
a number, and	scaling by simple	a number, and	scaling by simple	
common factors	fractions and	common factors	fractions and	
of 2 numbers	problems	of 2 numbers	problems involving	
	involving simple		simple rates	
	rates			
Recognise and	Solve problems	Recognise and	Solve problems	
use square	involving	use square	involving	
numbers and	multiplication and	numbers and	multiplication and	
cube numbers,	division including	cube numbers,	division including	



and the	using their	and the	using their	
notation for	knowledge of	notation for	knowledge of	
squared (2) and	factors and	squared (2) and	factors and	
cubed (3)	multiples, squares	cubed (3)	multiples, squares	
	and cubes		and cubes	
Know and use	Solve problems	Know and use	Solve problems	
the vocabulary	involving addition,	the vocabulary	involving addition,	
of prime	subtraction,	of prime	subtraction,	
numbers, prime	multiplication and	numbers, prime	multiplication and	
factors and	division and a	factors and	division and a	
composite (non-	combination of	composite (non-	combination of	
prime) numbers	these, including	prime) numbers	these, including	
	understanding		understanding the	
	the meaning of		meaning of the	
Estada Kala	the equals sign	Estada Bala	equals sign	
Establish		Establish		
whether a		whether a		
number up to		number up to		
100 is prime and		100 is prime and		
recall prime		recall prime		
numbers up to		numbers up to 19		
Solve problems		 Solve problems		
involving		involving		
addition,		addition,		
subtraction,		subtraction,		



NUMBER Fractions, decimals and percentages	multiplication and division and a combination of these, including understanding the meaning of the equals sign Recognise mixed numbers and improper fractions and convert from one form to the other. Write mathematical statements > 1 as a mixed number	Write a percentage as a fraction with denominator 100, and as a decimal	multiplication and division and a combination of these, including understanding the meaning of the equals sign Recognise mixed numbers and improper fractions and convert from one form to the other. Write mathematical statements > 1 as a mixed number	Write a percentage as a fraction with denominator 100, and as a decimal
	Identify, name and write equivalent fractions of a given fraction, represented visually,	Recognise the per cent symbol (%) and understand that per cent relates to 'number of	Identify, name and write equivalent fractions of a given fraction, represented visually,	Recognise the per cent symbol (%) and understand that per cent relates to 'number of



including te and hundre		parts per hundred'	including tenths and hundredths	parts per hundred'
Compare a order fraction whose denominated are all multiple of the same number	nd ons ors oles	Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator	Compare and order fractions whose denominators are all multiples of the same number	Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator
		of a multiple of 10 or 25		of a multiple of 10 or 25
Read and water decimal numbers as fractions (e. 0.71 = 71/100)	g.	Add and subtract fractions with the same denominator and denominators that are multiples of	Read and write decimal numbers as fractions (e.g. 0.71 = 71/100)	Add and subtract fractions with the same denominator and denominators that are multiples of



	Read, write, order and compare numbers with up to three decimal places		the same number  Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Read, write, order and compare numbers with up to three decimal places		the same number  Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents			Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents		
	Solve problems involving numbers with up to three decimal places			Solve problems involving numbers with up to three decimal places		
MEASUREMENT		Use all four operations to solve problems	Understand and use approximate		Use all four operations to solve problems involving	understand and use approximate



involving measure	equivalences	measure [for	equivalences
[for example,	between	example, length,	between
length, mass,	metric units	mass, volume,	metric units
volume, Money]	and common	Money] using	and common
using decimal	imperial units	decimal notation,	imperial units
notation,	such as	including scaling.	such as
including scaling.	inches,		inches,
	pounds and		pounds and
	pints		pints
convert between	estimate	convert between	estimate
different units of	volume - for	different units of	volume - for
metric measure	example,	metric measure (for	example,
(for example,	using 1 cm3	example, kilometre	using 1 cm3
kilometre and	blocks to build	and metre;	blocks to build
metre; centimetre	cuboids	centimetre and	cuboids
and metre;	(including	metre; centimetre	(including
centimetre and	cubes) and	and millimetre;	cubes) and
millimetre; gram	capacity (for	gram and kilogram;	capacity (for
and kilogram; litre	example,	litre and millilitre)	example,
and millilitre)	using water)		using water)
measure and	solve problems	measure and	solve problems
calculate the	involving	calculate the	involving
perimeter of	converting	perimeter of	converting
composite	between units	composite	between units
rectilinear shapes	of time	rectilinear shapes in	of time



		in centimetres			centimetres and	
		and metres			metres	
		calculate and	complete,		calculate and	complete,
		compare the	read and		compare the area	read and
		area of	interpret		of rectangles	interpret
		rectangles	information in		(including squares),	information in
		(including	timetables		and including using	timetables
		squares), and			standard units,	
		including using			square centimetres	
		standard units,			(cm2) and square	
		square			metres (m2) and	
		centimetres (cm2)			estimate the area	
		and square metres (m2) and			of irregular shapes	
		estimate the area				
		of irregular shapes				
GEOMETRY	Identify 3-D		Know angles	Identify 3-D		Know angles
	shapes,		are measured	shapes,		are measured
	including cubes		in degrees:	including cubes		in degrees:
	and other		estimate and	and other		estimate and
	cuboids, from		compare	cuboids, from		compare
	2D		acute, obtuse	2D		acute, obtuse
	representations		and reflex	representations		and reflex
			angles			angles
	Use the		Draw given	Use the		Draw given
	properties of		angles, and	properties of		angles, and



rectangles to	measure them	rectangles to	measure them
deduce related	in degrees (°)	deduce related	in degrees (°)
facts and find		facts and find	
missing lengths		missing lengths	
and angles		and angles	
Distinguish	Identify:	Distinguish	Identify:
between regular	Angles at a	between regular	Angles at a
and irregular	point and one	and irregular	point and one
polygons based	whole turn	polygons based	whole turn
on reasoning	(total 360°)	on reasoning	(total 360°)
about equal	Angles at a	about equal	Angles at a
sides and	point on a	sides and	point on a
angles.	straight line	angles.	straight line
	and a half turn		and a half turn
	(total 180°)		(total 180°)
	Other		Other
	multiples of 90°		multiples of 90°
identify,	identify,	identify,	identify,
describe and	describe and	describe and	describe and
represent the	represent the	represent the	represent the
position of a	position of a	position of a	position of a
shape following	shape	shape following	shape
a translation,	following a	a translation,	following a
using the	reflection,	using the	reflection,
appropriate	using the	appropriate	using the
language, and	appropriate	language, and	appropriate



STATISTICS  Year 6	know that the shape has not changed  Autumn A	complete, read and interpret information in tables  Spring A Where does it	language, and know that the shape has not changed Solve comparison, sum and difference problems using information presented in a line graph.  Summer A How do words	know that the shape has not changed  Autumn B How do I care	complete, read and interpret information in tables  Spring B What legacy will I	language, and know that the shape has not changed Solve comparison, sum and difference problems using information presented in a line graph.  Summer B What makes a
	Why is Richmond special?	come from and where does it go?	make us feel?	for my body and mind?	leave behind?	colourful world?
NUMBER Number and place value	use negative numbers in context, and calculate intervals across zero	multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places		use negative numbers in context, and calculate intervals across zero	multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places	



	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	solve number and practical problems that involve all of the above	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	solve number and practical problems that involve all of the above	
	identify the value of each digit to three decimal places	Round any number to a required degree of accuracy	identify the value of each digit to three decimal places	Round any number to a required degree of accuracy	
NUMBER Addition and subtraction (objectives repeated)	perform mental calculations, including with mixed operations and large numbers	perform mental calculations, including with mixed operations and large numbers	perform mental calculations, including with mixed operations and large numbers	perform mental calculations, including with mixed operations and large numbers	
	solve addition and subtraction multi-step problems in contexts, deciding which operations and	solve problems involving addition and subtraction, multiplication and division	solve addition and subtraction multi-step problems in contexts, deciding which operations and	solve problems involving addition and subtraction, multiplication and division	



11 1 1				
methods to use		methods to use		
and why		and why		
use estimation	use estimation to	use estimation	use	
to check	check answers to	to check	estimation to check	
answers to	calculations and	answers to	answers to	
calculations and	determine, in the	calculations and	calculations and	
determine, in	context of a	determine, in	determine, in the	
the context of a	problem, to an	the context of a	context of a	
problem, to an	appropriate	problem, to an	problem, to an	
appropriate	degree of	appropriate	appropriate degree	
degree of	accuracy	degree of	of accuracy	
accuracy	,	accuracy	,	
To add numbers	To add numbers	To add numbers	To add numbers	
(including	(including	(including	(including	
decimals) with	decimals) with	decimals) with	decimals) with	
more than 4	more than 4	more than 4	more than 4 digits,	
digits, including	digits, including	digits, including	including using	
using formal	using formal	using formal	formal written	
written methods	written methods	written methods	methods (columnar	
(columnar	(columnar	(columnar	addition)	
addition)	addition)	addition)	,	
To subtract	To subtract	To subtract	To subtract	
numbers	numbers	numbers	numbers (including	
(including	(including	(including	decimals) with	
decimals) with	decimals) with	decimals) with	more than 4 digits,	
more than 4	more than 4	more than 4	including using	



NUMBI Multipl and di	lication	digits, including using formal written methods (columnar subtraction) perform mental calculations, including with mixed operations and large numbers multiply multidigit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	digits, including using formal written methods (columnar subtraction) perform mental calculations, including with mixed operations and large numbers multiply numbers with up to two decimal places by whole numbers	digits, including using formal written methods (columnar subtraction) perform mental calculations, including with mixed operations and large numbers multiply multidigit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	formal written methods (columnar subtraction)  perform mental calculations, including with mixed operations and large numbers  multiply numbers with up to two decimal places by whole numbers	
		divide numbers up to 4 digits by a one-digit number using the formal written method	use written division methods in cases where the answer has up to two decimal places	divide numbers up to 4 digits by a one-digit number using the formal written method	use written division methods in cases where the answer has up to two decimal places	



of short division and interpret remainders appropriately for the context		of short division and interpret remainders appropriately for the context		
identify common factors and common multiples	use their knowledge of the order of operations to carry out calculations involving the four operations	identify common factors and common multiples	use their knowledge of the order of operations to carry out calculations involving the four operations	
solve problems involving multiplication and division	solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts	solve problems involving multiplication and division	solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts	
use estimation to check answers to	solve problems involving similar shapes where the	use estimation to check answers to	solve problems involving similar shapes where the	



	calculations and determine, in the context of a problem, levels of accuracy	scale factor is known or can be found		calculations and determine, in the context of a problem, levels of accuracy	scale factor is known or can be found	
NUMBER Fractions, decimals and percentages	use common factors to simplify fractions; use common multiples to express fractions in the same denomination		multiply simple pairs of proper fractions, writing the answer in its simplest form, (e.g. 1/4 × 1/2 = 1/8)	use common factors to simplify fractions; use common multiples to express fractions in the same denomination		multiply simple pairs of proper fractions, writing the answer in its simplest form, (e.g. ½ × ½ = ½)
	compare and order fractions, including fractions >1		divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ )	compare and order fractions, including fractions >1		divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ )
	recognise and write decimal equivalents of any number of tenths or hundredths		solve problems involving the calculation of percentages (e.g. of measures) such as 15% of	recognise and write decimal equivalents of any number of tenths or hundredths		solve problems involving the calculation of percentages (e.g. of measures) such as 15% of



	360 and the use of	360 and the use of
	percentages for	percentages
		for
recognise and	comparison solve problems recognise and	comparison solve problems
write decimal	which require   write decimal	which require
equivalents to	answers to be equivalents to	answers to be
1/4; 1/2; 3/4	rounded to 1/4; 1/2; 3/4	rounded to
/4, /2, /4	specified	specified
	degrees of	degrees of
	accuracy	accuracy
associate a	solve problems   associate a	solve problems
fraction with	involving fraction with	involving
division to	unequal division to	unequal
calculate	sharing and calculate	sharing and
decimal fraction	grouping using decimal fraction	grouping using
equivalents (e.g.	knowledge of equivalents (e.g.	knowledge of
0.375) for a	fractions and 0.375) for a	fractions and
simple fraction	multiples simple fraction	multiples
(e.g. %)	(e.g. 3%)	Thompies
recall and use	recall and use	
equivalences	equivalences	
between simple	between simple	
fractions,	fractions,	
decimals and	decimals and	



different contexts. add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent			different contexts.  add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.		
in de nons	find pairs of numbers that satisfy number sentences with two unknowns			find pairs of numbers that satisfy number sentences with two unknowns	
	enumerate all possibilities of combinations of two variables. express missing number problems			enumerate all possibilities of combinations of two variables.  express missing number problems	
1 0 0	contexts.  add and subtract fractions with different denominators and mixed numbers, using the concept of	contexts.  add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions  find pairs of numbers that satisfy number sentences with two unknowns enumerate all possibilities of combinations of two variables.	contexts.  add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions  find pairs of numbers that satisfy number sentences with two unknowns enumerate all possibilities of combinations of two variables.  express missing number problems	contexts.  add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions  find pairs of numbers that satisfy number sentences with two unknowns enumerate all possibilities of combinations of two variables.  express missing number contexts.  add and subtract subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions  find pairs of numbers that satisfy number sentences with two unknowns enumerate all possibilities of combinations of two variables.	contexts.  add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions  find pairs of numbers that satisfy number sentences with two unknowns  enumerate all possibilities of combinations of two variables.  express missing number problems  contexts.  add and subtract fractions with different denominators and mixed anumbers, using the concept of equivalent fractions  find pairs of numbers that satisfy number sentences with two unknowns  enumerate all possibilities of combinations of two variables.  express missing number problems



	use simple formulae Generate and describe linear number sequences		Use simple formulae  Generate and describe linear number sequences	
	Generate and describe linear number sequences (with fractions)		Generate and describe linear number sequences (with fractions)	
MEASUREMENT	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	calculate the area of parallelograms and triangles	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	calculate the area of parallelograms and triangles
	Convert between miles and kilometres	recognise when it is possible to use formulae for area and	Convert between miles and kilometres	recognise when it is possible to use formulae for area and



		use read write	volume of shapes Calculate,		use, read, write and	volume of shapes Calculate,
		use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places	estimate and compare volume of cubes and cuboids using standard units, including		use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places	estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres, and extend to other units (eg mm³)
GEOMETRY	recognise,	recognise that shapes with the same areas can have different perimeters and vice versa	illustrate and	recognise,	recognise that shapes with the same areas can have different perimeters and vice versa	illustrate and
J. J	describe and build simple 3-D		name parts of circles,	describe and build simple 3-D		name parts of circles,



shapes, including making nets	including radius, diameter and circumference and know that the diameter is twice the radius	shapes, including making nets	including radius, diameter and circumference and know that the diameter is twice the radius
draw 2-D shapes using given dimensions and angles	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	draw 2-D shapes using given dimensions and angles	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
compare and classify geometric shapes based on their properties and sizes and find unknown angles		compare and classify geometric shapes based on their properties and sizes and find unknown angles	



	in any triangles, quadrilaterals, and regular polygons describe positions on the full coordinate grid (all four quadrants)			in any triangles, quadrilaterals, and regular polygons describe positions on the full coordinate grid (all four quadrants)		
	draw shapes on the coordinate plane, and reflect them in the axes			draw shapes on the coordinate plane, and reflect them in the axes		
	draw and translate simple shapes on the coordinate plane			draw and translate simple shapes on the coordinate plane		
STATISTICS		interpret and construct pie charts and line graphs and use these to solve problems	calculate and interpret the mean as an average		interpret and construct pie charts and line graphs and use these to solve problems	calculate and interpret the mean as an average