	Y3/4 Block A Term 1 (15 lessons) 3/4 A1	Learning Objectives : By the end of this sequence of lessons all pupils	will be able to
Ongoin	ng/embedded AT1 and mental calculations	These objectives will also be revisited throughout the ye	
Problem s	solving and reasoning	Year 3	Year 4
	one and two-step problems involving whole	Addition and subtraction	Addition and subtraction
measu	rs, simple fractions and decimals, money and res, including time and temperature, perimeter plying multiplicative scaling	 add and subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens 	 add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
involvin	sent a problem using number sentences ng more than one operation; draw and interpret	a three-digit number and hundredsadd and subtract numbers with up to three	 estimate and use inverse operations to check answers to a calculation
	ns and graphs	digits, using formal written methods of	solve addition and subtraction two-step problems in
explana	orally on solutions to problems, providing ations and decisions supported with an	columnar addition and subtraction (number-lines –Diennes – column)	contexts, (inc. money), deciding which operations and methods to use and why.
•	ent and reasons		
	and describe patterns, properties and hships to establish invariants, apply in unfamiliar		
	ons to make deductions; investigate a given	Measures	Measures
	ent and test with examples; collect data to	 measure, compare, add and subtract: lengths 	 convert between different units of measure (e.g.
	graphs and support an argument	(m/cm/mm); mass (kg/g); volume/capacity (l/ml)	 kilometre to metre; hour to minute) read, write and convert time between analogue and
Number a	Ind Place Value	 know the number of seconds in a minute and 	 read, write and convert time between analogue and digital 12 and 24-hour clocks (mostly mental)
	from 0 in multiples of 4, 8, 50 and 100	the number of days in each month, year and	
	in multiples of 6, 7, 9, 25 and 1000	leap year	
	000 more or less than a given number	and year	
	backwards through zero to include negative	Geometry: properties of shape	Geometry: Properties of shapes
numbe		• recognise angles as a property of shape or a	compare and classify geometric shapes, including
• recogn	nise the place value of each digit in 3 and	description of a turn	quadrilaterals and triangles, based on their properties
four-di ones)	igit number (thousands, hundreds, tens, and	 identify right angles, recognise that two right angles make a half-turn, three make three 	and sizesidentify acute and obtuse angles and compare and
	and compare numbers to and beyond 1000	quarters of a turn and four a complete turn;	order angles up to two right angles by size
	 represent and estimate numbers using nt representations 	identify whether angles are greater than or less than a right angle	
 read an 	nd write numbers to at least 1000 in numerals		
and in v			
	any number to the nearest 10, 100 or 1000		
	number and practical problems that involve all of		
the abo numbe	ove and with increasingly large positive rs		
 read Re 	oman numerals to 100 (I to C) and understand		
how, ov	ver time, the numeral system changed to		
include	the concept of zero and place value.		

Y3/4 Block B Term 1 (15 lessons) 3/4B1 Ongoing/embedded AT1 and mental calculations	Learning Objectives : By the end of this sequence of lessons all pupils will be able to These objectives will also be revisited throughout the year	
 relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument Number and Place Value count from 0 in multiples of 4, 8, 50 and 100 count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in 3 and four-digit number (thousands, hundreds, tens, and ones) order and compare numbers to and beyond 1000 identify, represent and estimate numbers using different representations read and write numbers to at least 1000 in numerals and in words round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value. 	 solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects. Fractions (see NC notes and guidance) count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 recognise, find and write fractions of a discrete set of objects: unit fractions (1/3, ¼, 1/5) and non-unit fractions (2/3, ¾, 2/5))with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions, and fractions with the same denominator solve problems that involve all of the above. 	 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. Fractions, decimals and percentages count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten 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

Y3/4 Block C Term 1 (15 lessons)	Learning Objectives :	
3/4C1	By the end of this sequence of lessons all pupils will be able to	
Ongoing/embedded AT1 and mental calculations	These objectives will also be revisited throughout the year	
Problem solving and reasoning	Year 3	Year4
Solve one and two-step problems involving whole		
numbers, simple fractions and decimals, money and	Addition and subtraction	Addition and subtraction
measures, including time and temperature, perimeter	• add and subtract numbers mentally, including:	add and subtract numbers with up to 4 digits
and applying multiplicative scaling	 a three-digit number and ones 	using the efficient written methods of columnar
Represent a problem using number sentences	 a three-digit number and tens a three digit number and hundrede 	addition and subtraction where appropriate
involving more than one operation; draw and interpret diagrams and graphs	 a three-digit number and hundreds add and subtract numbers with up to three 	estimate and use inverse operations to check angularity to a calculation
 Report orally on solutions to problems, providing 	digits, using formal written methods of	 answers to a calculation solve addition and subtraction two-step problems in
explanations and decisions supported with an	columnar addition and subtraction	contexts, deciding which operations and methods
argument and reasons	(numberlines – dienes – column)	to use and why.
 Identify and describe patterns, properties and 	 solve problems, including missing number 	
relationships to establish invariants, apply in unfamiliar	problems, using number facts, place value, and	
situations to make deductions; investigate a given	more complex addition and subtraction.	
statement and test with examples; collect data to	'	
create graphs and support an argument	Measures	Measures
	• measure, compare, add and subtract: lengths	• convert between different units of measure (e.g.
Number and Place Value	(m/cm/mm); mass (kg/g); volume/capacity (l/ml)	kilometre to metre; hour to minute)
• count from 0 in multiples of 4, 8, 50 and 100	measure the perimeter of simple 2-D shapes	measure and calculate the perimeter of a
• count in multiples of 6, 7, 9, 25 and 1000	• know the number of seconds in a minute and the	rectilinear figure (including squares) in centimetres
• find 1000 more or less than a given number	number of days in each month, year and leap	and metres
• count backwards through zero to include negative	year	• find the area of rectilinear shapes by counting
numbers	Statistics	read, write and convert time between analogue and disite 140 and 24 hours alogue
recognise the place value of each digit in 3 and four digit in 2 and	 interpret and present data using bar charts, 	digital 12 and 24-hour clocks
four-digit number (thousands, hundreds, tens, and	 Interpret and present data using bar charts, pictograms and tables 	Statistics
 ones) order and compare numbers to and beyond 1000 	 solve one-step and two-step questions such as 	 interpret and present discrete data using bar charts
 identify, represent and estimate numbers using 	'How many more?' and 'How many fewer?' using	and continuous data using line graphs
different representations	information presented in scaled bar charts and	 solve comparison, sum and difference problems
 read and write numbers to at least 1000 in numerals 	pictograms and tables.	using information presented in bar charts,
and in words		pictograms, tables and simple line graphs.
 round any number to the nearest 10, 100 or 1000 		Compare the impact of representations where scales have
 solve number and practical problems that involve all of 		intervals of differing step sizes
the above and with increasingly large positive		
numbers		

Y3/4 Block D Term 1 (15 lessons) 3/4D1 Ongoing/embedded AT1 and mental calculations	Learning Objectives : By the end of this sequence of lessons all pupils These objectives will also be revisited throughou	
Problem solving and reasoning	Year 3	Year 4
Represent a problem using number sentences	Multiplication and division	Multiplication and division
involving more than one operation; draw and interpret	recall and use multiplication and division facts	recall multiplication and division facts for
diagrams and graphs	for the 3, 4, and 8 multiplication tables	multiplication tables up to 12×12
Report orally on solutions to problems, providing	• write and calculate mathematical statements for	use place value, known and derived facts to
explanations and decisions supported with an	multiplication and division using the	multiply and divide mentally, including: multiplying
argument and reasons	multiplication tables that they know, including	by 0 and 1; dividing by 1; multiplying together three
 Identify and describe patterns, properties and 	for two-digit numbers times one-digit numbers,	numbers
relationships to establish invariants, apply in unfamiliar	using mental and progressing to formal written	recognise and use factor pairs and commutatively
situations to make deductions; investigate a given	methods (numberline – grid – column)	in mental calculations
statement and test with examples; collect data to	solve problems, including missing number	• multiply two-digit and three-digit numbers by a one-
create graphs and support an argument	problems, involving multiplication and division,	digit number using formal written layout
Number and Place Value	including integer scaling problems and	• solve problems involving multiplying and adding,
 count from 0 in multiples of 4, 8, 50 and 100 	correspondence problems in which n objects are connected to m objects.	including using the distributive law and harder
 count in multiples of 4, 8, 50 and 100 count in multiples of 6, 7, 9, 25 and 1000 	are connected to m objects.	multiplication problems such as which n objects are connected to m objects.
 count in maniples of 0, 7, 9, 25 and 1000 count backwards through zero to include negative 	Fractions	
numbers	 add and subtract fractions with the same 	Fractions, decimals and percentages
 recognise the place value of each digit in 3 and 	5 1 6	 find the effect of dividing a one- or two-digit
four-digit number (thousands, hundreds, tens, and	denominator within one whole (e.g. $7_{7} + 7_{7} = 7_{7}$)	number by 10 and 100, identifying the value of
ones)	• count up and down in tenths; recognise that	the digits in the answer as ones, tenths and
order and compare numbers to and beyond 1000	tenths arise from dividing an object into 10	hundredths
 identify, represent and estimate numbers using 	equal parts and in dividing one-digit	• round decimals with one decimal place to the
different representations	numbers or quantities by 10	nearest whole number
• read and write numbers to at least 1000 in numerals	 compare and order unit fractions, and fractions with the same denominator 	compare numbers with the same number of
and in words	with the same denominator	decimal places up to two decimal places
• round any number to the nearest 10, 100 or 1000	Geometry: properties of shape	solve simple measure and money problems
• solve number and practical problems that involve all of	 draw 2-D shapes and make 3-D shapes using 	involving fractions and decimals to two decimal
the above and with increasingly large positive	modelling materials; recognise 3-D shapes in	places.
numbers	different orientations; and describe them	add and subtract fractions with the same
read Roman numerals to 100 (I to C) and understand	 recognise angles as a property of shape or a 	denominator.
how, over time, the numeral system changed to	description of a turn	
include the concept of zero and place value.	• identify right angles, identify whether angles are	Geometry: position and direction
	greater than or less than a right angle	 describe positions on a 2-D grid as coordinates in the first and deset
	identify horizontal, vertical, perpendicular and	the first quadrant
	parallel lines in relation to other lines	plot specified points and draw sides to complete a given polygon
		given polygon.

Y3/4 Block B Term 2 (15 lessons) 3/4B2 Ongoing/embedded AT1 and mental calculations	Learning Objectives : By the end of this sequence of lessons all pupils These objectives will also be revisited throughou	
Problem solving and reasoning	Year 3	Year 4
 Solve one and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument 	 Multiplication and division recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods solve problems, including missing number problems, involving multiplication and division and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects. 	 Multiplication and division recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutatively in mental calculations multiply two-digit and three-digit numbers by a one- digit number using formal written layout 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
Number and Place Value	Fractions	objects.
 count from 0 in multiples of 4, 8, 50 and 100 count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in 3 and four-digit number (thousands, hundreds, tens, and ones) order and compare numbers to and beyond 1000 identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value. 	 count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators recognise and show, using diagrams, equivalent fractions with small denominators compare and order unit fractions with the same denominator solve problems that involve all of the above. 	 Fractions, decimals and percentages count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten 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 show, using diagrams, families of common equivalent fractions add and subtract fractions with the same denominator.

Y3/4 Block C Term 2 (15 lessons) 3/4C2 Ongoing/embedded AT1 and mental calculations	Learning Objectives : By the end of this sequence of lessons all pupils will be a These objectives will also be revisited throughout the ye	
Problem solving and reasoning	Year 3	Year 4
 Problem solving and reasoning Solve one and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument Number and Place Value count from 0 in multiples of 4, 8, 50 and 100 count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in 3 and four-digit number (thousands, hundreds, tens, and ones) order and compare numbers to and beyond 1000 identify, represent and estimate numbers using different representations reound any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers 	 Year 3 Addition and subtract numbers mentally, including: a dt ree-digit number and ones a three-digit number and tens a three-digit number and hundreds add and subtract numbers with up to three digits, using formal written methods of columnar ₊ and - estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction (money). Measures measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight know the number of seconds in a minute and the number of days in each month, year and leap year compare durations of events, for example to calculate the time taken by particular events or tasks. 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, tables and pictograms. 	 Year 4 Addition and subtraction add and subtract numbers with up to 4 digits using the efficient written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts(money), deciding which operations and methods to use and why. Measures convert between different units of measure (e.g. kilometre to metre; I to ml, hour to minute) read, write and convert time between analogue and digital 12 and 24-hour clocks solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. Statistics interpret and present discrete data using bar charts and continuous data using line graphs solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs. Compare the impact of representations where scales have intervals of differing step sizes

3/4D2 Ongoing/embedded AT1 and mental calculations		Learning Objectives : By the end of this sequence of lessons all pupils will be able to These objectives will also be revisited throughout the year	
	Problem solving and reasoning	Year 3	Year 4
	 Represent a problem using number sentences 	Multiplication and division	Multiplication and division
	 involving more than one operation; draw and interpret diagrams and graphs Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons 	 recall and use multiplication and division facts for the 3, 4, and 8 multiplication tables write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit 	 recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
	 Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument Number and Place Value 	 numbers times one-digit numbers, using mental and progressing to formal written methods solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects. 	 recognise and use factor pairs and commutatively in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are approached to method.
	• count from 0 in multiples of 4, 8, 50 and 100	Fractions	connected to m objects.
	 count in multiples of 6, 7, 9, 25 and 1000 count backwards through zero to include negative numbers recognise the place value of each digit in 3 and four-digit number (thousands, hundreds, tens, and ones) order and compare numbers to and beyond 1000 identify, represent and estimate numbers using different representations read and write numbers to at least 1000 in numerals and in words round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive 	 add and subtract fractions with the same denominator within one whole (e.g. ⁵/₇ + ¹/₇ = ⁶/₇) count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 recognise and show, using diagrams, equivalent fractions with small denominators compare and order unit fractions with the same denominator Geometry: properties of shape draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in 	 Fractions, decimals and percentages recognise and write decimal equivalents of any number of tenths or hundredths recognise & write decimal equivalents to 1/4; 1/2; 1/4 find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places solve simple measure and money problems involving fractions and decimals to two decimal places.
	 numbers read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value. . 	 different orientations; and describe them recognise angles as a property of shape or a description of a turn identify right angles, identify whether angles are greater than or less than a right angle identify horizontal, vertical, perpendicular and parallel lines in relation to other lines 	 Geometry: position and direction describe movements between positions as translations of a given unit to the left/right and up/down plot specified points and draw sides to complete a given polygon.

Y3/4 Block A Term 3 (15 lessons)	Learning Objectives :	will be able to
Ongoing/embedded AT1 and mental calculations Problem solving and reasoning	By the end of this sequence of lessons all pupils Year 3	Year 4
 Solve one and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument Number and Place Value count from 0 in multiples of 4, 8, 50 and 100 count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in 3 and four-digit number (thousands, hundreds, tens, and ones) order and compare numbers to and beyond 1000 identify, represent and estimate numbers using different representations read and write numbers to at least 1000 in numerals and in words round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers 	 Addition and subtract numbers mentally, including: add and subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens a three-digit number and hundreds add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) measure the perimeter of simple 2-D shapes add and subtract amounts of money to give change, using both £ and p in practical contexts know the number of seconds in a minute and the number of days in each month, year and leap year compare durations of events, for example to calculate the time taken by particular events or tasks Geometry: properties of shape recognise angles as a property of shape or a description of a turn identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle 	 Addition and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. Measures convert between different units of measure (e.g. kilometre to metre; hour to minute) measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares estimate, compare and calculate different measures, including money in pounds and pence read, write and convert time between analogue and digital 12 and 24-hour clocks solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. Statistics interpret and present discrete data using bar charts and continuous data using line graphs solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.

Y3/4 Block B Term 3 (15 lessons)	Learning Objectives :	
Ongoing/embedded AT1 and mental calculations	By the end of this sequence of lessons all pupils will be able to	
Problem solving and reasoning	Year 3	Year 4
Solve one and two-step problems involving whole	Multiplication and division	Multiplication and division
numbers, simple fractions and decimals, money and	• recall and use x and ÷ facts for the 3, 4 & 8s	recall multiplication and division facts for multiplication
measures, including time and temperature, perimeter	• write and calculate mathematical statements	tables up to 12 × 12
and applying multiplicative scaling	for multiplication and division using the	use place value, known and derived facts to multiply
Represent a problem using number sentences involving more than one operation, draw and interpret	multiplication tables that they know, including	and divide mentally, including: multiplying by 0 and 1;
involving more than one operation; draw and interpret diagrams and graphs	for two-digit numbers times one-digit numbers, using mental and progressing to	dividing by 1; multiplying together three numbers
 Report orally on solutions to problems, providing 	formal written methods	 recognise and use factor pairs and commutatively in mental calculations
explanations and decisions supported with an	 solve problems, including missing number 	 multiply two-digit and three-digit numbers by a one-
argument and reasons	problems, involving multiplication and	digit number using formal written layout
 Identify and describe patterns, properties and 	division, including integer scaling problems	 solve problems involving multiplying and adding,
relationships to establish invariants, apply in unfamiliar	and correspondence problems in which n	including using the distributive law to multiply two digit
situations to make deductions; investigate a given	objects are connected to m objects.	numbers by one digit, integer scaling problems and
statement and test with examples; collect data to		harder correspondence problems such as n objects
create graphs and support an argument	Fractions	are connected to m objects.
	• count up and down in tenths; recognise that	
Number and Place Value	tenths arise from dividing an object into 10	Fractions, decimals and percentages
• count from 0 in multiples of 4, 8, 50 and 100	equal parts and in dividing one-digit numbers	count up and down in hundredths; recognise that
count in multiples of 6, 7, 9, 25 and 1000 find 1000	or quantities by 10	hundredths arise when dividing an object by a
find 1000 more or less than a given number	 recognise, find and write fractions of a discrete set of objects: unit fractions and 	hundred and dividing tenths by ten
 count backwards through zero to include negative numbers 	non-unit fractions with small denominators	 solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide
 recognise the place value of each digit in 3 and 	 recognise and use fractions as numbers: unit 	quantities, including non-unit fractions where the
four-digit number (thousands, hundreds, tens, and	fractions and non-unit fractions with small	answer is a whole number
ones)	denominators	 recognise and show, using diagrams, families of
 order and compare numbers to and beyond 1000 	• recognise and show, using diagrams,	common equivalent fractions
 identify, represent and estimate numbers using 	equivalent fractions with small denominators	• add and subtract fractions with the same denominator.
different representations	 compare and order unit fractions with the 	
 read and write numbers to at least 1000 in numerals 	same denominator	Geometry: Properties of shapes
and in words	• solve problems that involve all of the above.	compare and classify geometric shapes, including
 round any number to the nearest 10, 100 or 1000 	Statistics	quadrilaterals and triangles, based on their properties
• solve number and practical problems that involve all of	Statistics	and sizes
the above and with increasingly large positive	 interpret and present data using bar charts, pictograms and tables 	 identify acute and obtuse angles and compare and order angles up to two right angles by size
numbers	 solve one-step and two-step questions such 	 identify lines of symmetry in 2-D shapes presented in
 read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to 	as 'How many more?' and 'How many	 Identify lines of symmetry in 2-b shapes presented in different orientations
include the concept of zero and place value.	fewer?' using information presented in	complete a simple symmetric figure with respect to a
	scaled bar charts, pictograms and tables.	specific line of symmetry

Y3/4 Block C Term 3 (15 lessons)	Learning Objectives :	abla ta
Ongoing/embedded AT1 and mental calculations Problem solving and reasoning	By the end of this sequence of lessons all pupils will be a Year 3	Year 4
 Solve one and two-step problems involving whole numbers, simple fractions and decimals, money and measures, including time and temperature, perimeter and applying multiplicative scaling Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument 	 Addition and subtraction add and subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens a three-digit number and hundreds add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. 	 Addition and subtraction add and subtract numbers with up to 4 digits using the efficient written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. Measures convert between different units of measure (e.g. kilometre to metre; hour to minute) measure and calculate the perimeter of a
 Number and Place Value count from 0 in multiples of 4, 8, 50 and 100 count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in 3 and four-digit number (thousands, hundreds, tens, and ones) order and compare numbers to and beyond 1000 identify, represent and estimate numbers using 	 measures measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) add and subtract amounts of money to give change, using both £ and p in practical contexts tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight 	 Inteasure and calculate the permeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting estimate, compare and calculate different measures, including money in £s and p read, write and convert time between analogue and digital 12 and 24-hour clocks solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
 different representations read and write numbers to at least 1000 in numerals and in words round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value. 	 know the number of seconds in a minute and the number of days in each month, year and leap year compare durations of events, for example to calculate the time taken by particular events or tasks. 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, pictograms and tables 	 Statistics interpret and present discrete data using bar charts and continuous data using line graphs solve comparison, sum and difference problems using information presented in bar charts,pictograms, tables and simple line graphs. <i>Compare the impact of representations where scales have intervals of differing step sizes</i>

Y3/4 Block D Term 3 (15 lessons) Ongoing/embedded AT1 and mental calculations	Learning Objectives : By the end of this sequence of lessons all pupils	will be able to
Problem solving and reasoning	Year 3	Year 4
 Problem solving and reasoning Represent a problem using number sentences involving more than one operation; draw and interpret diagrams and graphs Report orally on solutions to problems, providing explanations and decisions supported with an argument and reasons Identify and describe patterns, properties and relationships to establish invariants, apply in unfamiliar situations to make deductions; investigate a given statement and test with examples; collect data to create graphs and support an argument Number and Place Value count from 0 in multiples of 4, 8, 50 and 100 count in multiples of 6, 7, 9, 25 and 1000 count backwards through zero to include negative numbers recognise the place value of each digit in 3 and four-digit number (thousands, hundreds, tens, and ones) order and compare numbers to and beyond 1000 identify, represent and estimate numbers using different representations read and write numbers to at least 1000 in numerals and in words round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers 	 Year 3 Multiplication and division recall and use multiplication and division facts for the 3, 4, and 8 multiplication tables write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects. Fractions add and subtract fractions with the same denominator within one whole (e.g. 1/7 + 1/7 = 1/7) count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 recognise and show, using diagrams, equivalent fractions with small denominators compare and order unit fractions with the same denominator denominator denominator 	 Year 4 Multiplication and division recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutatively in mental calculations multiply two-digit and three-digit numbers by a one- digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects. Fractions, decimals and percentages recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to 1/2; 1/2; 1/4 find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places solve simple measure and money problems involving fractions and decimals to two decimal places. Geometry: position and direction describe positions on a 2-D grid as coordinates in the first quadrant describe movements between positions as translations of a given unit to the left/right and up/down plot specified points and draw sides to complete a given polygon.

Medium Term Plans for Mathematics: Curriculum 2014 Year 3_4