Roe Farm Primary School Year 6

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Autumn 1 st Half Term	Autumn 2 nd Half Term	Spring 1 st Half Term	Spring 2 nd Half Term	Summer 1 st Half Term	Summer 2 nd Half Term	
Number and Place	Fractions, Decimals	<u>Measurement</u>	Algebra	<u>Statistics</u>	Geometry – Properties	
<u>Value</u>	and Percentages:				and Shapes	
Observation All colors	<u>Fractions</u>	Chapter 5 –	Chapter 9 – Algebra	Chapter 14 – Graphs	Character 42	
Chapter 1 – Numbers	Observation Control	<u>Measurements</u>	T. 1.1	and Averages	Chapter 12 –	
to 10 million	<u>Chapter 3 – Fractions</u>		To determine a		Geometry	
-		To convert units of	pattern using concrete	To calculate the		
To create and identify	To use concrete	time from minutes to	materials and pictorial	average (mean) of sets	To name the parts of a	
numbers to 10 000 000	materials to simplify	hours; to represent	representation; to use	of values.	circle; to calculate	
to write in numerals	fractions; to recognise	time using 24-hour	a table to identify a		diameter and radius	
and words numbers to	equivalence in	notation.	repeating pattern; to	To calculate the mean.	using parts of a circle.	
10 000 000.	fractions to 1/4.	15 11	express a rule using a			
	_ , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Word Problems	letter or symbol.	To solve problems	To solve problems	
To construct and	To simplify fractions			involving the mean; to	involving angles in a	
record numbers to 10	using division and	Chapter 6 – Word	To determine a	use the mean and the	circle.	
000 000; to recognise	common factors; to	<u>Problems</u>	pattern using concrete	number of values to		
the value of digits to	represent fractions		materials and pictorial	calculate the total; to	To draw quadrilaterals	
10 000 000.	using concrete	To use bar models to	representation; to use	use given information	with specific side	
	materials and pictorial	solve word problems	a table to identify a	to find unknown	lengths and parallel	
To recognise and	representations.	involving the four	repeating pattern; to	values.	lines; to find the	
construct numbers to		operations.	express the		perimeter of shapes	
10 000 000 using an	To compare fractions		relationship between	To show information	and name trapeziums	
abacus; to recognise	and place them in	To use the bar model	consecutive numbers	on graphs; to transfer	and parallelograms.	
the value of digits in	order from smallest to	heuristic to solve word	in terms of a symbol or	information from a		
numbers to 10 000 000	largest.	problems involving the	letter.	table to a pie chart.	To draw triangles using	
and write numbers		four operations.			measurements and	
using numerals and	To compare and order		To determine a	To read and interpret	angles as the starting	
words.	fractions by finding		pattern using concrete	pie charts.	point; to use a	

	common	To use the bar model	materials and pictorial		protractor to draw
To compare numbers	denominators.	heuristic to solve	representation; to use	To read and interpret	triangles using angles.
to 10 000 000 using		complex word	a table to identify a	pie charts; to use	
place value.	To compare and order	problems involving	pattern; to express	percentages in pie	To construct triangles
	fractions using	time.	unknown numbers in	charts.	using a protractor and
To compare and order	common factors.		terms of a letter or		ruler; to use ratio to
numbers to 10 000		To solve complex word	symbol, including	To read and interpret	determine the
000; to create	Adding and subtracting	problems using	using a number before	pie charts; to use	dimensions of a
combinations of	fractions with different	pictorial	a letter for	knowledge of angles to	triangle.
numbers using a fixed	denominators; using	representation and the	multiplication.	interpret pie charts.	
number of digits.	pictorial	four operations.			To construct the nets
	representations to		To use a table to	To read line graphs; to	of 3-D shapes by
To round numbers to	compare fractions and	To create and solve	identify a pattern; to	interpret the	identifying the faces
10 000 000 to the	add/subtract.	word problems that	write algebraic	information in line	and the 2-D shapes
nearest million,		apply the bar model	expressions using each	graphs that show	that construct them.
hundred thousand and	To add and subtract	heuristic and working	of the four operations.	distance and time.	
ten thousand.	fractions of different	backwards as the main			To construct the nets
	denominators; to	strategies.	To use examples to	To read and interpret	of 3-D shapes by
To round numbers to	develop questions and		identify rules; to write	line graphs; to answer	identifying the faces
the nearest	word problems based	To create and solve	algebraic expressions	questions about the	and the 2-D shapes
appropriate number	on the information	complex word	using each of the four	information in line	that construct them.
up to and including	provided.	problems using the	operations; to	graphs.	
millions; to determine		four operations.	evaluate algebraic		Chapter 13 – Position
when rounding is	To add and subtract		expressions including	Number and Place	and Movement
appropriate	fractions with different	Fractions, Decimals	the use of inverse	<u>Value:</u>	
and to which value.	denominators.	and Percentages	operations.		To describe reflection
				Chapter 15 – Negative	using a mirror line and
<u>Calculations</u>	To add and subtract	Chapter 7 –	To recognise patterns;	<u>Numbers</u>	the terms 'object' and
	mixed numbers,	<u>Percentages</u>	to write algebraic		'image'.
Chapter 2 – Four	including fractions		expressions with two	To add and subtract	
Operations on Whole	with different	To find the percentage	steps; to evaluate	negative numbers	To reposition objects
<u>Numbers</u>	denominators; to	of a whole number	algebraic expressions	using a number line.	so they can be
		using division and	with two steps.		

To use multiple	subtract from the	multiplication; to use		To create number	reflected in the x and y
operations and create	whole and add the	bar modelling as a	To recognise patterns;	stories using negative	axis as the mirror line.
expressions from a	remainder back on.	pictorial approach to	to write and evaluate	numbers.	
picture; to use the		calculating percentage.	algebraic expressions		To use algebra to
order of operations to	To add and subtract		with two steps; to	Measurement	describe the positions
solve expressions.	fractions with different	To find the percentage	write and use		of coordinates in
	denominators; to add	of a quantity; to use	formulae.	Chapter 11 – Volume	relationship to one
To create and solve	and subtract mixed	bar model diagrams to			another.
expressions using the	numbers.	support the division	To use formulae to	To find the volume of	
four operations.		and multiplication of	solve problems; to	cubes and cuboids	To represent
	To multiply fractions	numbers towards	replace a	using concrete	translation and
To multiply numbers	using pictorial	the percentage.	letter/variable with a	materials.	reflection using
by multiples of 10; to	representations and		number then solve the		algebraic notation.
use number bonds as a	abstract methods.	To find the percentage	equation; to use	To determine the	
key strategy in		change in an amount	inverse operations	formula for the	<u>Statistics</u>
multiplication.	To determine if the	over time; to calculate	to solve equations.	volume of cubes and	
	commutative law	the percentage change		cuboids and apply it to	Chapter 14 - Graphs
To multiply 3- and 4-	applies to fractions; to	where the number	To solve equations; to	calculate the volume	and Averages
digit numbers by 2-	multiply fractions	gives rise to	use equations to find	of shapes.	
digit numbers without	using concrete	a decimal.	unknown values.		To convert miles into
regrouping or	materials and pictorial			To estimate the	kilometres and
renaming; to use both	representations	To use percentage, bar	Measurement	volume of objects and	kilometres into miles.
number bonds and the		models and fractions		spaces; to calculate	
column	To use concrete	to compare amounts.	Chapter 10 – Area and	the volume of boxes	To read and interpret
method as key	materials to		<u>Perimeter</u>	using the formula for	line graphs.
strategies.	understand and solve	Ratio and Proportion		volume of cubes and	
	the multiplication of		To find the area and	cuboids.	
To multiply 3- and 4-	fractions; to simplify	Chapter 8 – Ratio	perimeter of		
digit numbers by 2-	equations using		rectangles; to calculate	To calculate the	
digit numbers with	pattern blocks.	To use ratios and	perimeter using the	volume of boxes using	
regrouping and		fractions to compare	known area and vice	the formula for	
renaming; to use	To divide a fraction by	objects; to find the	versa.	volume of a cube; to	
	a whole number; to	relationship between		expose common	

number bonds and	use pictorial	ratios, percentages	To find and calculate	misconceptions in	
pattern	representation to	and fractions.	the area of a	volume through	
recognition as key	divide whole numbers		parallelogram; to use	a 3-box arrangement.	
strategies for	into fractions.	To determine the ratio	concrete materials and		
multiplication.		of a quantity using	prior understanding of	To solve word	
	To divide fractions by	concrete materials; to	area to construct a	problems involving the	
To estimate products	whole numbers using	simplify ratios using	formula for the area.	volume of cubes and	
of multiplying 3- and 4-	concrete materials and	concrete materials in		cuboids; to apply the	
digit numbers by a 2-	pictorial	addition to division.	To use prior	formula for the	
digit numbers; to use	representations; to		knowledge of area to	volume of a cube or	
knowledge of	divide fractions when	To compare more than	determine and solve	cuboid.	
multiplication to	the	two quantities using	the area of a triangle;		
create	numerator and divisor	the term 'ratio'; to use	to use and apply the	<u>SATs</u>	
specific products.	are not easily divisible.	bar models to express	formula for the area		
		ratios where there is	of a rectangle to solve		
To divide 3-digit	To divide fractions by a	more than	problems involving		
numbers by 2-digit	whole number; to use	one quantity.	triangles.		
numbers using a	pictorial				
variety of strategies; to	representations to	To compare quantity	To calculate the area		
use number bonds,	support division.	using both fractions	of a triangle using a		
long division and bar		and ratios; to use bar	formula; to calculate		
models to	Chapter 4 – Decimals	model diagrams to	the area of a triangle		
facilitate division by 2-		represent ratios.	in multiple ways.		
digit numbers.	To read and write				
	decimals to	To compare quantities	To use multiple		
To divide 4-digit	thousandths; to use	using bar models and	methods to solve the		
numbers by 2-digit	concrete materials to	common factors; to	area of a triangle.		
numbers; to use	represent decimals.	use multiplication and			
number bonds and		division to simplify	To find the area of a		
long division as the key	To divide whole	ratios.	parallelogram using an		
strategies.	numbers by larger		understanding of		
-	whole numbers; to use	To compare numbers	triangles; to use		
	Base 10 materials to	using ratios; to make	-		

To divide 4 digit	roprocent tenths	desisions about	concrete meterials to	
To divide 4-digit	represent tenths,	decisions about	concrete materials to	
numbers by 2-digit	hundredths and	simplifying ratios using	find the area	
numbers using a	thousandths.	division.	of a parallelogram.	
variety of methods; to				
use number bonds,	To divide whole	To solve word	Geometry – Properties	
long and short division	numbers that give rise	problems using a	and Shapes	
as key methods.	to decimals; to	variety of heuristics		
	calculate decimal	including guess-and-	Chapter 12 –	
To divide 3-digit	fraction equivalents	check and bar models;	Geometry	
numbers by 2-digit	using long division.	to apply knowledge of		
numbers giving rise to		ratios to word	To investigate	
remainders; to use	To convert fractions	problems.	opposite angles; to use	
number bonds and	into decimals using bar		prior knowledge of	
long and short division	models and long	To solve word	angles to solve	
as key	division.	problems using the bar	problems involving	
strategies to solve		model heuristic; to	angles.	
division problems.	To write fractions as	employ division and		
·	decimals; to use long	multiplication as	To solve problems	
To divide 4-digit	division as the key	primary strategies	involving angles using	
numbers by 2-digit	strategy for turning	when solving	the bar model	
numbers giving rise to	fractions into	word problems	heuristic; to solve	
a remainder; to	decimals.	visually.	problems involving	
represent the		,	angles without	
remainder as part of a	To multiply decimals	To apply the guess-	protractors.	
whole amount of	by whole numbers	and-check and		
money	using partitioning or	advanced bar model	To determine and	
or decimal.	the worded method to	heuristic to ratio word	show the sum of the	
	help find the solution.	problems.	angles inside a	
To use the bar model			triangle.	
heuristic to solve word	To multiply whole			
problems involving	numbers that include a		To investigate and	
multiplication and	decimal by other		determine angles in	
division.	whole numbers; to use		quadrilaterals.	
uivisiUII.	whole numbers, to use		quaurilaterais.	

	partitioning and the		
To solve word	worded method as	To use the knowledge	
problems using	key strategies.	of angles inside a	
division as the main		triangle and a	
strategy; to use	To multiply decimals	quadrilateral to solve	
pictorial	by whole numbers,	problems involving	
representations to	including regrouping	angles in other shapes.	
support word	and renaming.		
problems.		Chapter 12 - Position	
	To multiply decimals	and Movement	
To solve word	by whole numbers		
problems involving	using a variety of	To represent negative	
multiple operations,	methods; to use the	numbers on both	
including	heuristic 'making a list'	vertical and horizontal	
multiplication and	to help solve a	number lines.	
division	problem.		
		To describe the	
To find common	To divide decimals	positions of objects on	
multiples in real-life	using number bonds	a coordinate grid; to	
situations; to use	and number discs as	use x and y axes to	
common multiples in	the key strategies.	determine the position	
tandem with		of objects on a grid.	
knowledge of time.	To divide decimals		
	using bar models,	To describe the	
To use common	number bonds and	position of points	
multiples to solve	long division as key	using coordinates on a	
problems; to organise	strategies, including	grid.	
mathematical thinking	regrouping and		
into tables and lists.	renaming.	To draw polygons on a	
		coordinate grid; to	
To find the largest	To multiply decimals	recognise polygons on	
common factor of 3-	by a 2-digit whole	a coordinate grid.	
digit numbers; to use	number using number		

multiplication and	discs and the column	1	To describe the	
division to find largest	method.		translation of shapes	
common factors.		<u> </u>	on a coordinate grid.	
	To divide decimals by	<u> </u>		
To find common	2-digit numbers using	<u> </u>		
factors using concrete	number bonds and the	<u> </u>		
materials.	worded method.			
To use prime numbers	To divide decimals by			
to create other	2-digit whole numbers	<u> </u>		
numbers; to explore	using number bonds	<u> </u>		
prime numbers above	and the worded	<u> </u>		
100.	method.			
To explore prime	Measurement			
numbers using	ivicasurement	<u> </u>		
concrete materials; to	Chapter 5 –	<u> </u>		
identify prime	Measurements	<u> </u>		
numbers using		<u> </u>		
multiplication or	To convert common	<u> </u>		
division.	measurements into	<u> </u>		
	metres, centimetres	<u> </u>		
	and millimetres.	ļ		
	To convert units of			
	measure into different	<u> </u>		
	units; to use			
	knowledge of decimals			
	and fractions to help			
	convert units.			

To convert metres into		
kilometres as units of		
measure.		
To convert units of		
mass from grams to		
kilograms using		
decimals and fractions.		
To convert units of		
volume from millilitres		
to litres.		