

MATHEMATICS SKILLS PROGRESSION OVERVIEW								
DATE	DATE REVIEW DATE SUBJECT LEADER							
August 2024	September 2025	Stephanie Cassell						

This document aims to give guidance on the progression of Mathematics knowledge and skills across the year groups.

It can also be used to differentiate work, and expectations, appropriately for pupils working above and below age-related expectations (particularly SEND pupils and GD pupils). Potential GD pupils should also be encouraged to access mathematical problems presented in a wide range of different, complex ways, ask their own mathematical questions and follow their own lines of enquiry when exploring an open ended maths problem.

Pupils use of mathematical language, fluency in the fundamentals of mathematics, reasoning mathematically following a line of enquiry and solving problems by applying their mathematical skills should be evident in their mathematic books.

In Mathematics, like all other subjects, we recognise the importance of the methods and practice of teaching (the pedagogy) we choose to use in enabling pupils to know more, understand more and remember more. In Mathematics, the following approaches will be used, and be evident in pupil discussion, observations and work in books, in order to ensure that the learning opportunities and skill development are as effective as possible and that pupils progress throughout the year and across year groups during their maths experiences in school:

COUNTING							
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
count	count to and			count	interpret	use	
reliably	across 100,			backwards	negative	negative	
with	forwards and			through zero to	numbers	numbers	



numbers	backwards,			include	in context,	in context,
from one	beginning with			negative	count	and
to 10	0 or 1, or from			numbers	forwards	calculate
	any given				and	intervals
	number				backwards	across
					with	zero
					positive	
					and	
					negative	
					whole	
					numbers,	
					including	
					through	
					zero	
	count, read and	count in steps	count from 0 in	count in	count	
	write numbers	of 2, 3, and 5	multiples of 4,	multiples of 6,	forwards	
	to 100 in	from 0, and in	8, 50 and 100;	7, 9, 25 and 1	or	
	numerals;	tens from any		000	backwards	
	count in	number,			in steps of	
	multiples of	forward or			powers of	
	twos, fives and	backward			10 for any	
	tens				given	
					number	
					up to 1	
					000 000	



say which number is one more or one less than a given number	given a number, identify one more and one less		find 10 or 100 more or less than a given number	find 1000 more or less than a given number		
		СОМ	PARING NUMBER	S		
Place numbers in order from one to 10 in order	use the language of: equal to, more than, less than (fewer), most, least	compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers up to 1000	order and compare numbers beyond 1000 compare numbers with the same number of decimal places up to two decimal places (copied from Fractions)	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading



					and Writing Numbers)	and Writing Numbers)
	IDEN	TIFYING, REPRESE	NTING AND ESTIN	MATING NUMBER	RS	
Place	identify and	identify,	identify,	identify,		
numbers	represent	represent and	represent and	represent and		
in order	numbers using	estimate	estimate	estimate		
from one	objects and	numbers using	numbers using	numbers using		
to 10 in	pictorial	different	different	different		
order	representations	representations,	representations	representations		
	including the	including the				
	number line	number line				



	READING AND WRITING NUMBERS (including Roman Numerals)								
Place	read and	read and	read and write		read, write,	read, write,			
numbers in	write	write	numbers up to		order and	order and			
order from	numbers	numbers to	1000 in		compare	compare			
one to 10 in	from 1 to 20	at least 100 in	numerals and		numbers to	numbers up to			
order	in numerals	numerals and	in words		at least 1 000	10 000 000			
	and words.	in words			000 and	and determine			
					determine	the value of			
					the value of	each digit			
					each digit	(appears also			
					(appears also	in			
					in Comparing	Understanding			
					Numbers)	Place Value)			
			tell and write	read Roman	read Roman				
			the time from	numerals to	numerals to				
			an analogue	100 (I to C)	1000 (M)				
			clock,	and know	and				
			including	that over	recognise				
			using Roman	time, the	years written				
			numerals from	numeral	in Roman				
			I to XII, and	system	numerals.				
			12-hour and	changed to					
			24-hour clocks	include the					
			(copied from	concept of					
			Measurement)						



		zero and place value.						
UNDERSTANDING PLACE VALUE								
recognise the place value of each digit in a two-digit number (tens, ones)	recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)				
		find the effect of dividing a one- or two- digit number by 10 and 100, identifying the value of	Numbers)  recognise and use thousandths and relate them to tenths, hundredths	identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and				



		the digits in	and decimal	1000 where
		the answer	equivalents	the answers
		as units,	(copied from	are up to
		tenths and	Fractions)	three decimal
		hundredths		<i>places</i> (copied
		(copied from		from
		Fractions)		Fractions)



RO	UNDING	
	round any number to number to the nearest to 1000 10, 100 or 1 000 to the nearest 100, 100 and 100 000	whole number to a required degree of accuracy
	round decimals with one decimal decimal with two decimal place to the nearest whole number (copied from Fractions)  round decimals decimals places to the neare the ne	which require answers to be rounded to specified and degrees of accuracy (copied from Fractions)

**PROBLEM SOLVING** 



use place value and number facts to solve problems	solve number problems and practical problems involving these ideas.	solve number and practical problems that involve all of the above and with increasingly large positive numbers	solve number problems and practical problems that involve all of the above	solve number and practical problems that involve all of the above
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		NUMBER: ADD	DITION AND SU	BTRACTION		
		NU	JMBER BONDS			
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	represent	recall and use				
	and use	addition and				
	number	subtraction				
	bonds and	facts to 20				
	related	fluently, and				
	subtraction	derive and use				
	facts within	related facts up				
	20	to 100				
	1	MENT	TAL CALCULATION	ON	ı	
Using	add and	add and	add and		add and	perform
quantities	subtract one-	subtract	subtract		subtract	mental
and	digit and	numbers using	numbers		numbers	calculations,
objects,	two-digit	concrete	mentally,		mentally	including
add and	numbers to	objects,	including:		with	with mixed
subtract	20, including	pictorial	* a three-		increasingly	operations
two single-	zero	representations,	digit		large	and large
digit		and mentally,	number		numbers	numbers
numbers		including:	and ones			
and count						



on or back to find the answer		* a two-digit number and ones * a two-digit number and tens	* a three- digit number and tens * a three- digit		
		* two two-digit numbers	number and		
		* adding three	hundreds		
		one-digit	Trairer cas		
		numbers			
	read, write	show that			use their
	and interpret	addition of two			knowledge
	mathematical	numbers can be			of the order
	statements	done in any			of operations
	involving	order			to carry out
	addition (+),	(commutative)			calculations
	subtraction (-	and subtraction			involving the
	) and equals	of one number			four
	(=) signs	from another			operations
	(appears also	cannot			
	in Written				
	Methods)				



	WRITTEN METHODS						
Using	read, write		add and	add and	add and		
quantities	and interpret		subtract	subtract	subtract		
and	mathematical		numbers	numbers with	whole		
objects,	statements		with up to	up to 4 digits	numbers		
add and	involving		three digits,	using the	with more		
subtract	addition (+),		using formal	formal written	than 4		
two single-	subtraction (-)		written	methods of	digits,		
digit	and equals (=)		methods of	columnar	including		
numbers	signs		columnar	addition and	using		
and count	(appears also		addition and	subtraction	formal		
on or back	in Mental		subtraction	where	written		
to find the	Calculation)			appropriate	methods		
answer					(columnar		
					addition		
					and		
					subtraction)		
	INVERS			AND CHECKING A	NSWERS		
		recognise and	estimate the	estimate and	use	use	
		use the	answer to a	use inverse	rounding to	estimation to	
		inverse	calculation	operations to	check	check	
		relationship	and use	check answers	answers to	answers to	
		between	inverse	to a calculation	calculations	calculations	
		addition and	operations		and	and	
		subtraction			determine,	determine, in	



and use this	to check	in the	the context of
to check	answers	context of a	a problem,
calculations		problem,	levels of
and solve		levels of	accuracy.
missing		accuracy	
number			
problems.			



		PRO	BLEM SOLVIN	G		
Solve	solve one-step	solve problems	solve	solve	solve	solve
problems	problems that	with addition and	problems,	addition and	addition and	addition and
,	involve	subtraction:	including	subtraction	subtraction	subtraction
including	addition and	* using concrete	missing	two-step	multi-step	multi-step
doubling,	subtraction,	objects and	number	problems in	problems in	problems in
halving	using concrete	pictorial	problems,	contexts,	contexts,	contexts,
and	objects and	representation	using	deciding	deciding	deciding
sharing.	pictorial	s, including	number	which	which	which
	representation	those involving	facts, place	operations	operations	operations
	s, and missing	numbers,	value, and	and methods	and	and
	number	quantities and	more	to use and	methods to	methods to
	problems such	measures	complex	why	use and why	use and why
	as	<ul><li>* applying their</li></ul>	addition and			
	7 = □ - 9	increasing	subtraction			
		knowledge of				
		mental and				
		written				
		methods				
		solve simple				Solve
		problems in a				problems
		practical context				involving
		involving addition				addition,
		and subtraction				subtraction,
		of money of the				multiplicatio



same unit,		n and
including giving		division
change (copied		
from		
Measurement)		



		NUMBER:MULT	IPLICATION A	ND DIVISION		
		MULTIPLICAT	ON AND DIVIS	SION FACTS		
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	count in	count in steps of	count from 0	count in	count	
	multiples of	2, 3, and 5 from	in multiples	multiples of	forwards or	
	twos, fives and	0, and in tens	of 4, 8, 50	6, 7, 9, 25	backwards	
	tens (copied	from any	and 100	and 1 000	in steps of	
	from Number	number, forward	(copied from	(copied from	powers of 10	
	and Place	or backward	Number and	Number and	for any given	
	Value)	(copied from Number and	Place Value)	Place Value)	number up	
		Place Value)			to 1 000 000	
		i lace valuej			(copied from	
					Number and	
					Place Value)	



recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	recall multiplicatio n and division facts for multiplicatio n tables up to 12 × 12		
0.45117				
MEN	TAL CALCULATI	1	l	
	write and calculate mathematic al statements for multiplicatio n and division using the multiplicatio n tables that they know, including for	use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together	multiply and divide numbers mentally drawing upon known facts	perform mental calculations, including with mixed operations and large numbers



		two-digit	three		
		numbers	numbers		
		times one-			
		digit			
		numbers,			
		using mental			
		and			
		progressing			
		to formal			
		written			
		methods			
		(appears			
		also in			
		Written			
		Methods)			
	show that		recognise	multiply and	associate a
	multiplication of		and use	divide whole	fraction with
	two numbers can		factor pairs	numbers	division and
	be done in any		and	and those	calculate
	order		commutativit	involving	decimal
	(commutative)		y in mental	decimals by	fraction
	and division of		calculations	10, 100 and	equivalents
	one number by		(appears also	1000	(e.g. 0.375)
	another cannot		in Properties		for a simple
			of Numbers)		



1	1	1		1
				fraction (e.g. $\frac{3}{8}$ )
				(copied from
				Fractions)
WRITT	EN CALCULAT	ION		·
calculate	write and	multiply two-	multiply	multiply
mathematical	calculate	digit and	numbers up	multi-digit
statements for	mathematic	three-digit	to 4 digits by	numbers up
multiplication	al	numbers by a	a one- or	to 4 digits by
and division	statements	one-digit	two-digit	a two-digit
within the	for	number using	number	whole
multiplication	multiplicatio	formal	using a	number
tables and write	n and	written	formal	using the
them using the	division	layout	written	formal
multiplication (×),	using the		method,	written
division (÷) and	multiplicatio		including	method of
equals (=) signs	n tables that		long	long
	they know,		multiplicatio	multiplicatio
	including for		n for two-	n
	two-digit		digit	
	numbers		numbers	
	times one-			
	digit			
	numbers,			
	using mental			



	and		
	progressing		
	to formal		
	written		
	methods		
	(appears		
	also in		
	Mental		
	Methods)		
		divide	divide
		numbers up	numbers up
		to 4 digits by	to 4-digits by
		a one-digit	a two-digit
		number	whole
		using the	number
		formal	using the
		written	formal
		method of	written
		short	method of
		division and	short
		interpret	division
		remainders	where
		appropriatel	appropriate
		y for the	for the
		context	context



			divide
			numbers up
			to 4 digits by
			a two-digit
			whole
			number
			using the
			formal
			written
			method of
			long
			division, and
			interpret
			remainders
			as whole
			number
			remainders,
			fractions, or
			by rounding,
			as
			appropriate
			for the
			context
			use written
			division



						methods in
						cases where
						the answer
						has up to
						two decimal
						places
						(copied from
						Fractions
						(including
						decimals))
PRO	<b>OPERTIES OF NUI</b>	MBERS: MULTIPLES,	, FACTORS, PRI	MES,_SQUARE	AND CUBE NUI	MBERS
				recognise	identify	identify
				and use	multiples	common
				factor pairs	and factors,	factors,
				and	including	common
				commutativit	finding all	multiples
				y in mental	factor pairs	and prime
				calculations	of a number,	numbers
				(repeated)	and	
					common	
					factors of	use common
					two	factors to
					numbers.	simplify



		know and	fractions;
		use the	use common
		vocabulary	multiples to
		of prime	express
		numbers,	fractions in
		prime	the same
		factors and	denominatio
		composite	n
		(non-prime)	(copied from
		numbers	Fractions)
		establish	
		whether a	
		number up	
		to 100 is	
		prime and	
		recall prime	
		numbers up	
		to 19	
		recognise	calculate,
		and use	estimate and
		square	compare
		numbers	volume of
		and cube	cubes and
		numbers,	cuboids
		and the	using



				notation for	standard
				squared ( <sup>2</sup> )	units,
				and cubed	including
					centimetre
				(3)	cubed (cm <sup>3</sup> )
					and cubic
					metres (m³),
					and
					extending to
					other units
					such as mm <sup>3</sup>
					and km³
					(copied from
					Measures)
	ORDEI	R OF OPERATIO	ONS		
					use their
					knowledge
					of the order
					of
					operations
					to carry out
					calculations
					involving the



			four operations
INVER	SE OPERATIONS, ESTIMATING AN	ID CHECKING AN	ISWERS
	estimate the answer to a calculation and use inverse operations to check answers (copied from Addition and Subtraction)	use inverse operations to check answers to a calculation (copied from Addition and Subtraction)	use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy



	PROBLEM SOLVING							
solve one-step	solve	solve problems,	solve problems	solve	solve			
problems	problems	including	involving	problems	problems			
involving	involving	missing number	multiplying and	involving	involving			
multiplication	multiplication	problems,	adding,	multiplication	addition,			
and division, by	and division,	involving	including using	and division	subtraction,			
calculating the	using	multiplication	the distributive	including	multiplication			
answer using	materials,	and division,	law to multiply	using their	and division			
concrete	arrays,	including	two digit	knowledge of				
objects,	repeated	positive integer	numbers by	factors and				
pictorial	addition,	scaling	one digit,	multiples,				
representations	mental	problems and	integer scaling	squares and				
and arrays with	methods, and	correspondence	problems and	cubes				
the support of	multiplication	problems in	harder	solve				
the teacher	and division	which n objects	correspondence	problems				
	facts,	are connected	problems such	involving				
	including	to m objects	as n objects are	addition,				
	problems in		connected to m	subtraction,				
	contexts		objects	multiplication				
				and division				
				and a				
				combination				
				of these,				
				including				
				understanding				



		the meaning of the equals sign	
		solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	solve problems involving similar shapes where the scale factor is known or can be found (copied from Ratio and Proportion)



				ALS AND PERCENT	TAGES)	
			UNTING IN FRACT			
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Pupils should	count up and	count up and		
		count in	down in tenths	down in		
		fractions up		hundredths		
		to 10,				
		starting from				
		any number				
		and using the1/2 and				
		2/4				
		equivalence				
		on the				
		number line				
		(Non				



	Statutory Guidance)								
	RECOGNISING FRACTIONS								
recognise, find and name a half as one of two equal parts of an object, shape or quantity	recognise, find, name and write fractions $^{1}/_{3}$ , $^{1}/_{4}$ , $^{2}/_{4}$ and $^{3}/_{4}$ of a length, shape, set of objects or quantity	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators  recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10.	recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence)					



	recognise, find	red	cognise and			
	and name a	use	e fractions as			
	quarter as one	nui	mbers: unit			
	of four equal	fra	ctions and			
	parts of an	no	n-unit			
	object, shape	fra	ctions with			
	or quantity	sm	all			
		dei	nominators			
		CC	OMPARING FRA	ACTIONS		
		cor	mpare and		compare and	compare and
		ord	der unit		order	order
		fra	ctions, and		fractions	fractions,
			ctions, and ctions with		fractions whose	fractions, including
		fra	-			•
		fra the	ctions with		whose	including
		fra the	ctions with e same		whose denominators	including
		fra the	ctions with e same		whose denominators are all	including



COMPARING DECIMALS							
			compare	read, write,	identify the		
			numbers	order and	value of each		
			with the	compare	digit in numbers		
			same	numbers	given to three		
			number of	with up to	decimal places		
			decimal	three			
			places up to	decimal			
			two decimal	places			
			places				
	ROUI	NDING INCLUDIN	G DECIMALS				
			round	round	solve problems		
			decimals	decimals with	which require		
			with one	two decimal	answers to be		
			decimal	places to the	rounded to		
			place to the	nearest	specified		
			nearest	whole	degrees of		
			whole	number and	accuracy		
			number	to one			
				decimal place			
EQUIVALE	NCE (INCLUDI	NG FRACTIONS,	DECIMALS AND	PERCENTAGES			
	write	recognise and	recognise	identify,	use common		
	simple	show, using	and show,	name and	factors to		
	fractions	diagrams,	using	write	simplify		
	e.g. <sup>1</sup> / <sub>2</sub> of 6	equivalent	diagrams,	equivalent	fractions; use		



= 3 and recognise the equivalence of $^2/_4$ and $^1/_2$ .	fractions with small denominators	families of common equivalent fractions	fractions of a given fraction, represented visually, including tenths and hundredths	common multiples to express fractions in the same denomination
		recognise and write decimal equivalents of any number of tenths or hundredths	read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$ ) recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $^3/_8$ )
		recognise and write decimal	recognise the per cent symbol (%)	recall and use equivalences between simple



			equivalents	and	fractions,
			to <sup>1</sup> / <sub>4</sub> ; <sup>1</sup> / <sub>2</sub> ; <sup>3</sup> / <sub>4</sub>	understand	decimals and
			74, 72, 74	that per cent	percentages,
				relates to	including in
				"number of	different
				parts per	contexts.
				hundred",	
				and write	
				percentages	
				as a fraction	
				with	
				denominator	
				100 as a	
				decimal	
				fraction	
	ADDITION A	AND SUBTRACTION	ON OF FRACTIC	NS	
		add and	add and	add and	add and
		subtract	subtract	subtract	subtract
		fractions with	fractions	fractions with	fractions with
		the same	with the	the same	different
		denominator	same	denominator	denominators
		within one	denominator	and multiples	and mixed
				of the same	numbers, using
				number	the



whole (e.g. $\frac{5}{7}$ + $\frac{1}{7}$ = $\frac{6}{7}$ )	recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = \frac{1}{5}$	
MULTIPLICATION AND DIVIS		
	multiply proper fractions and mixed numbers by whole numbers, supported by	multiply simple pairs of proper fractions, writing the answer in its simplest form $(e.g. \frac{1}{4} \times \frac{1}{2} = \frac{1}{8})$



					materials and diagrams	multiply one- digit numbers with up to two decimal places by whole numbers divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ )			
MULTIPLICATION AND DIVISION OF DECIMALS									
		IVIOLIII LICA				multiply one- digit numbers with up to two decimal places by whole numbers			
				find the effect of dividing a one- or two- digit number		multiply and divide numbers by 10, 100 and 1000 where the answers are up			



		by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	to three decimal places
			identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
			associate a fraction with division and calculate



				decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. <sup>3</sup> / <sub>8</sub> ) use written division methods in cases where the answer has up to two decimal places
	PROBLEM SOL	VING		
	solve problems that involve all of the above		solve problems involving numbers up to three decimal places	



	quantities, including non-unit fractions where the answer is a whole number		
	solve simple measure and money problems involving fractions and decimals to two decimal places.	solve problems which require knowing percentage and decimal equivalents of $^{1}/_{2}$ , $^{1}/_{4}$ , $^{1}/_{5}$ , $^{2}/_{5}$ , $^{4}/_{5}$ and those with a denominator of a multiple of 10 or 25.	



Chalas		ATIO AND PROP		
Statemer	its only appear i	hould be connect multiplication at	iearning, parti	cularly fractions
				Year 6
				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 the
			calculation of
			percentages
			[for example,
			of measures,
			and such as
			15% of 360] and
			the use of
			percentages for
			comparison
			solve problems
			involving similar
			shapes where
			the scale factor



			is known or can be found
			solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.



			ALGEBRA			
			EQUATION	S		
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \Box - 9$ (copied from Addition and Subtraction)	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. (copied from Addition and Subtraction)	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. (copied from Addition and Subtraction)  solve problems, including missing number		use the properties of rectangles to deduce related facts and find missing lengths and angles (copied from Geometry: Properties of Shapes)	express missing number problems algebraically



	problems, involving multiplication and division, including integer scaling (copied from Multiplication and Division)		
recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 (copied from Addition and Subtraction)			find pairs of numbers that satisfy number sentences involving two unknowns



represent and			enumerate all
use number			possibilities of
bonds and			combinations of
related			two variables
subtraction			
facts within 20			
(copied from			
Addition and			
Subtraction)			



		FORMULAE		
			Perimeter can	use simple
			be expressed	formulae
			algebraically	recognise
			as 2(a + b)	when it is
			where a and b	possible to use
			are the	<b>formulae</b> for
			dimensions in	area and
			the same unit.	volume of
			(Copied from	shapes
			NSG	(copied from
			measurement)	Measurement)
		SEQUENCES		
sequence events	compare and			generate and
in chronological	sequence			describe linear
order using	intervals of time			number
language such	(copied from			sequences
as: before and	Measurement)			
after, next, first,	order and			
today, yesterday,	arrange			
tomorrow,	combinations of			
morning,	mathematical			



afternoon and	objects in			
evening	patterns			
(copied from	(copied from			
Measurement)	Geometry:			
,	position and			
	direction)			



			MEASUREMENT			
		СОМРА	RING AND ESTIMA	TING		
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Children	compare,	compare and		estimate,	calculate	calculate,
use	describe and	order lengths,		compare and	and	estimate and
everyday	solve practical	mass,		calculate	compare	compare
language	problems for:	volume/capacity		different	the area of	volume of
to talk	* lengths and	and record the		measures,	squares	cubes and
about	heights [e.g.	results using >,		including	and	cuboids using
size,	long/short,	< and =		money in	rectangles	standard
weight,	longer/shorter,			pounds and	including	units,
capacity,	tall/short,			pence	using	including
to	double/half]			(also included	standard	centimetre
compare	* mass/weight			in Measuring)	units,	cubed (cm <sup>3</sup> )
quantities	[e.g.				square	and cubic
and	heavy/light,				centimetres	metres (m³),
objects	heavier than,				(cm <sup>2</sup> ) and	and extending
and to	lighter than]				square	to other units
solve	* capacity and				metres (m <sup>2</sup> )	such as mm <sup>3</sup>
problems	volume [e.g.				and	and km <sup>3</sup> .
	full/empty,				estimate	allu Kiii .



le ha qu * tir qu sle	ore than, ss than, half, alf full, uarter] ne [e.g. uicker, ower, earlier, ter]			the area of irregular shapes (also included in measuring) estimate volume (e.g. using 1 cm³ blocks to build cubes and cuboids) and capacity (e.g. using water)	
in ch orde lang befo next	uence events nronological er using uage [e.g. ore and after, erday,	compare and sequence intervals of time	compare durations of events, for example to calculate the time taken by		



tomorrow,	particular events		
morning,	or tasks		
afternoon and			
evening]			
3	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		
	(appears also in		
	Telling the Time)		
	MEASURING and CALCULAT	FINIC	

**MEASURING and CALCULATING** 



Children	measure and	choose and use	measure,	estimate,	use all four	solve
use	begin to record	appropriate	compare, add	compare and	operations	problems
everyday	the following:	standard units	and subtract:	calculate	to solve	involving the
language	* lengths and	to estimate and	lengths	different	problems	calculation
to talk	heights	measure	(m/cm/mm);	measures,	involving	and
about	mass/weight	length/height in	mass (kg/g);	including	measure	conversion of
size,	* capacity and	any direction	volume/capacity	money in	(e.g.	units of
weight,	volume	(m/cm); mass	(l/ml)	pounds and	length,	measure,
capacity,	* time (hours,	(kg/g);		pence	mass,	using decimal
to	minutes,	temperature		(appears also	volume,	notation up to
compare	seconds)	(°C); capacity		in Comparing)	money)	three decimal
quantities		(litres/ml) to the			using	places where
and		nearest			decimal	appropriate
objects		appropriate			notation	(appears also
and to		unit, using			including	in Converting)
solve		rulers, scales,			scaling.	
problems		thermometers				
		and measuring				
		vessels				
			measure the	measure and	measure	recognise that
			<b>perimeter</b> of	calculate the	and	shapes with
			simple 2-D	<b>perimeter</b> of a	calculate	the same
			shapes	rectilinear	the	areas can have
				figure	perimeter	different
				(including	of	



		squares) in	composite	perimeters
		centimetres	rectilinear	and vice versa
		and metres	shapes in	
			centimetres	
			and metres	



	MEASURING and CALCULATING							
Children	recognise and	recognise	add and					
use	know the value	and use	subtract					
everyday	of different	symbols for	amounts of					
language	denominations	pounds (£)	money to					
to talk	of <b>coins and</b>	and pence	give change,					
about	notes	(p); combine	using both £					
money to		amounts to	and p in					
compare		make a	practical					
quantities		particular	contexts					
and		value						
objects								
and to		find different						
solve		combinations						
problems.		of coins that						
		equal the						
		same						
		amounts of						
		money						
		solve simple						
		<b>problems</b> in						
		a practical						
		context						
		involving						



addition and subtraction of money of the same unit, including giving change			
	find the area of rectilinear shapes by counting squares	calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes	calculate the area of parallelograms and triangles calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units



		recognise and use square numbers and cube numbers, and	[e.g. mm <sup>3</sup> and km <sup>3</sup> ].
		the notation	recognise when
		for squared	it is possible to
		( <sup>2</sup> ) and cubed	use formulae for
		( <sup>3</sup> )	area and
		(copied from	volume of
		Multiplication	shapes
		and Division)	

	TELLING THE TIME					
Children	tell the time to	tell and write	tell and write	read, write		
use	the hour and	the time to	the time	and convert		
everyday	half past the	five minutes,	from an	time		
language	hour and draw	including	analogue	between		
to talk	the hands on a	quarter	clock,	analogue		
about	clock face to	past/to the	including	and digital		
time to	show these	hour and	using Roman	12 and 24-		
solve	times.	draw the	numerals	hour clocks		
		hands on a	from I to XII,			



problems.		clock face to	and 12-hour	(appears	
		show these	and 24-hour	also in	
		times.	clocks	Converting)	
	recognise and	know the	estimate and		
	use language	number of	read		
	relating to	minutes in an	time with		
	dates, including	hour and the	increasing		
	days of the	number of	accuracy to		
	week, weeks,	hours in a	the nearest		
	months and	day.	minute;		
	years	(appears also	record and		
		in	compare		
		Converting)	time in terms		
			of seconds,		
			minutes,		
			hours and		
			o'clock; use		
			vocabulary		
			such as		
			a.m./p.m.,		
			morning,		
			afternoon,		
			noon and		
			midnight		



	(appears also			
	in Comparing			
	and			
	Estimating)			
		solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Converting)	solve problems involving converting between units of time	
	CONVERTING			
know the	know the	convert	convert	use, read, write
number of	number of	between	between	and convert
minutes in an	seconds in a	different	different units	between
hour and the	minute and	units of	of metric	standard units,
number of	the number	measure	measure (e.g.	converting



hours in a	of days in	(e.g.	kilometre and	measurements
day.	each month,	kilometre to	metre;	of length,
(appears also	year and leap	metre; hour	centimetre	mass, volume
in Telling the	year	to minute)	and metre;	and time from
Time)			centimetre	a smaller unit
			and	of measure to a
			millimetre;	larger unit, and
			gram and	vice versa,
			kilogram; litre	using decimal
			and millilitre)	notation to up
				to three
				decimal places
		read, write	solve	solve problems
		and convert	problems	involving the
		time	involving	calculation and
		between	converting	conversion of
		analogue	between units	units of
		and digital	of time	measure, using
		12 and 24-		decimal
		hour clocks		notation up to
		(appears		three decimal
		also in		places where
		Converting)		appropriate



				(appears also in Measuring and Calculating)
		solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Telling the Time)	understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	convert between miles and kilometres



	GEOMETRY: PROPERTIES OF SHAPES								
	IDENTIFYING SHAPES AND THIER PROPERTIES								
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			
Explore	recognise and	identify and		identify	identify 3-D	recognise,			
characteri	name common	describe the		lines of	shapes,	describe and			
stics of	2-D and 3-D	properties of		symmetry in	including	build simple 3-			
everyday	shapes,	2-D shapes,		2-D shapes	cubes and	D shapes,			
objects	including:	including the		presented	other cuboids,	including			
and	* 2-D shapes	number of		in different	from 2-D	making nets			
shapes	[e.g.	sides and line		orientations	representatio	(appears also in			
and use	rectangles	symmetry in			ns	Drawing and			
mathema	(including	a vertical line				Constructing)			
tical	squares),								
language	circles and	identify and				illustrate and			
to	triangles] 3-D	describe the				name parts of			
describe	shapes [e.g.	properties of				circles,			
them.	cuboids	3-D shapes,				including			
	(including	including the				radius,			
	cubes),	number of				diameter and			
	pyramids and	edges,				circumference			
	spheres].	vertices and				and know that			
		faces				the diameter is			



identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]				twice the radius
DRAW	ING AND CONS	TRUCTING		
	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3- D shapes in different orientations and describe them	complete a simple symmetric figure with respect to a specific line of symmetry	draw given angles, and measure them in degrees (°)	draw 2-D shapes using given dimensions and angles recognise, describe and build simple 3- D shapes, including making nets (appears also in Identifying



				Shapes and Their Properties)
COMP	ARING AND CLA	ASSIFYING		
compare and sort common 2-D and 3-D shapes and everyday objects		compare and classify geometric shapes, including quadrilatera ls and triangles, based on their properties and sizes	use the properties of rectangles to deduce related facts and find missing lengths and angles distinguish between regular and irregular polygons based on reasoning about equal	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons



		sides and angles	
		arigics	
ANCIE			
ANGLES		know on alos	
recognise		know angles	
angles as a		are measured	
property of		in degrees:	
shape or a		estimate and	
description		compare	
of a turn		acute, obtuse	
		and reflex	
		angles	
identify right	identify	identify:	recognise
angles,	acute and	* angles at a	angles where
recognise	obtuse	point and	they meet at a
that two	angles and	one whole	point, are on a
right angles	compare	turn (total	straight line, or
make a half-	and order	360°)	are vertically
turn, three	angles up to	* angles at a	opposite, and
make three	two right	point on a	find missing
quarters of a	angles by	straight line	angles
turn and four	size	and ½ a turn	
a complete		(total 180°)	
turn; identify		(LULAI 160 )	



whether	* other	
angles are	multiples of	
greater than	90°	
or less than a		
right angle		
identify		
horizontal		
and vertical		
lines and		
pairs of		
perpendicula		
r and parallel		
lines		



		GEOMETR'	Y: POSITION AN	ID DIRECTION		
			DIRECTION AN			
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Children	describe	use		describe	identify,	describe
use	position,	mathematica		positions on	describe and	positions on
everyday	direction and	I vocabulary		а	represent the	the full
language	movement,	to describe		2-D grid as	position of a	coordinate grid
to talk	including half,	position,		coordinates	shape	(all four
about	quarter and	direction and movement		in the first quadrant	following a reflection or	quadrants)



position,	three-quarter	including	describe	translation,	draw and
distance.	turns.	movement in	movements	using the	translate
		a straight	between	appropriate	simple shapes
		line and	positions as	language, and	on the
		distinguishin	translations	know that the	coordinate
		g between	of a given	shape has not	plane, and
		rotation as a	unit to the	changed	reflect them in
		turn and in	left/right		the axes.
		terms of	and		
		right angles	up/down		
		for quarter,			
		half and			
		three-			
		quarter turns			
		(clockwise			
		and			
		anti-			
		clockwise)			
			plot		
			specified		
			points and		
			draw sides		
			to complete		
			a given		
			polygon		



	PATTERN					
Recognise, create and describe patterns.		order and arrange combinations of mathematica I objects in patterns and sequences	PATTERN			
			CTATICTICS			
	STATISTICS INTERPRETING, CONSTRUCTING AND PRESENTING DATA					
FS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		interpret and construct	interpret and present	interpret and present	complete, read and	interpret and construct pie



simple	data using	discrete and	interpret	charts and line
pictograms,	bar charts,	continuous	information in	graphs and use
tally charts,	pictograms	data using	tables,	these to solve
block	and tables	appropriate	including	problems
diagrams and		graphical	timetables	
simple tables		methods,		
		including bar		
		charts and		
		time graphs		
ask and				
answer				
simple				
questions by				
counting the				
number of				
objects in				
each				
category and				
sorting the				
categories by				
quantity				
ask and				
answer				
questions				
about				



totalling and comparing categorical data				
S	<b>OLVING PROB</b>	LEMS		
	solve one-	solve	solve	calculate and
	step and	comparison,	comparison,	interpret the
	two-step	sum and	sum and	mean as an
	questions	difference	difference	average
	[e.g. 'How	problems	problems	
	many	using	using	
	more?' and	information	information	
	'How many	presented in	presented in a	
	fewer?']	bar charts,	line graph	
	using	pictograms,		
	information	tables and		
	presented in	other		
	scaled bar	graphs.		
	charts and			
	pictograms			
	and tables.			