

<u>EYFS</u>	<u>Key Stage 1</u>	<u>Key Stage 2</u>

#### **Number = Number and Place Value**

3 and 4 yr olds	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
past 5.  Say one number name for each item in order: 1, 2, 3, 4, 5. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal	Count objects, actions and sounds.  Count beyond ten.  Subitise.  Link the number symbol (numeral) with its cardinal number value.  Compare numbers.	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number  Count, read and write numbers to 100 in numerals; count in multiples of	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number (Year 1)  Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens (Year 1)	Recognise the place value of each digit in a two-digit number (tens, ones) (Year 2)  compare and order numbers up to 1,000  count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number Identify,	Recognise the place value of each digit in a four-digit number (1,000s, 100s, 100s, 100s, and 1s)  Count in multiples of 6, 7, 9, 25 and 1,000  Identify, represent and estimate numbers using different	Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit  Count forwards or backwards in steps of powers of 10 for any given number up	Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit  count forwards or backwards in steps of powers of 10 for

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Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). • Show 'finger numbers' up to 5.	Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.	2s, 5s and 10s  Given a number, identify 1 more and 1 less  Identify and represent numbers using objects and pictorial representations	recognise the place value of each digit in a Two-digit number (tens, ones)  identify, represent and estimate numbers using different representations, including the number line	represent and estimate numbers using different representations  recognise the place value of each digit in a three-digit number (100s, 10s, 1s),	representations  count in multiples of 6, 7, 9, 25 and 1,000  find 1,000 more or less than a given number  count backwards through 0 to include negative	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through O	any given number up to 1 000 000  Round any whole number to a required degree of accuracy  use negative numbers in context, and calculate intervals across 0
• Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5 • Experiment with their own symbols	between  consecutive  numbers.	including the number line, and use the language of: equal to, more than, less than (fewer), most, least  Read and write numbers from 1 to 20 in	compare and order numbers from 0 up to 100; use <, > and = signs  count in steps of 2, 3, and 5 from 0, and in tens from		recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) order and compare numbers beyond	Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000  Solve number problems and practical	solve number and practical problems that involve all of the above  Perform mental calculations, including with mixed

and marks as well	composition of	numerals and		problems that	
as	composition of			involve all of	
	numbers to 10.				
numerals.					
l Charles I a la college	Automatically				
Link numerals and	recall number				
amounts: for	bonds for				
example, showing					
	numbers 0-5 and				
the right					
number of objects	some to 10.				



to match the	words	any number,	1,000	the above	operations and
numeral, up to 5.		forward and			large numbers
<ul> <li>Experiment with their own symbols</li> </ul>		backward	idonais.	Read Roman	
and marks as well			identify,		
as numerals.			represent and	numerals to	Solve addition
us numer dis.			estimate	1,000 (M) and	and subtraction
Compare			numbers using	recognise	multi-step
quantities using			different	years written	problems in
language: 'more			representations	in	contexts,
than', 'fewer than'. Understand the			representations		· ·
onderstand the				Roman numerals	deciding which
than/one less			round any number		operations and
than' relationship			to the nearest		methods to use
			10, 100 or 1,000		and why
between			,		
consecutive					
numbers.			solve number and		Solve problems
<ul> <li>Explore the composition of</li> </ul>			practical		involving
numbers to 10.			· ·		addition,
number 3 to 10.			problems that		subtraction,
Solve real world			involve all of		
mathematical			the above and		multiplication
problems with			with		and division
numbers up to 5.			increasingly		
			large positive		Use estimation
			numbers		to check
					answers to
			read Roman		calculations and
			numerals to 100		determine, in the
			(I to C) and		
			know that		
			<u> </u>	<u> </u>	<u> </u>

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					over time, the numeral system changed to include the concept of 0 and place value		context of a problem, an appropriate degree of accuracy  read Roman numerals to 1000 (M) and recognise years written in Roman numerals.			
Number	Number - Addition and Subtraction									
3 and 4 yr olds	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			



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Automatically recall number bonds for	read, write and interpret	solve problems with addition	add and subtract numbers	add and subtract	add and subtract	add and subtract
numbers 0-5 and	mathematical	and	mentally,	to 4 digits using	with more than 4	mentally with
some to 10.	statements involving addition	subtraction:	including:	the formal written	digits, including using	increasingly large numbers
Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.	(+), subtraction (-) and equals (=) signs  represent and use number bonds and related subtraction	using concrete objects and pictorial representations, including those involving numbers, quantities and measures	<ul> <li>a three-digit number and 1s</li> <li>a three-digit number and 10s</li> <li>a three-digit</li> </ul>	methods of columnar addition and subtraction where appropriate  estimate and use inverse operations to check answers to	formal written methods (columnar addition and subtraction)  add and subtract numbers mentally with increasingly	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and
Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly.	facts within 20  add and subtract one-digit and two-digit numbers to 20, including 0  solve one-step problems that involve addition and	applying their increasing knowledge of mental and written methods  recall and use addition and	number and 100s  add and subtract numbers with up to 3 digits, using formal written methods of	a calculation  solve addition  and  subtraction  two-step  problems in  contexts,  deciding which  operations and  methods to use and	use rounding to check answers to calculations and determine, in the context of a problem, levels of	estimate and use inverse operations to check answers to a calculation solve addition and subtraction



subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = 2 - 9	subtraction facts to 20 fluently, and derive and use related facts up to 100  add and subtract numbers using concrete objects, pictorial representations, and mentally, including:  a two-digit number and 1s  a two-digit number and 10s	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	why	accuracy  Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	multi-step problems in contexts, deciding which operations and methods to use and why  solve problems involving addition, subtraction, multiplication and division  use estimation to check answers to calculations and determine, in the context of a problem, an appropriate
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	numbers			
	adding 3			
	one-digit			
	number			
	show that			
	addition of 2			
	numbers can be			
	done in any			
	order			
	(commutative)			
	and subtraction			
	of 1			
	number from			
	another cannot			
	recognise and			
	use the			
	inverse			
	relationship			
	between addition			

and subtraction and use this to		
check calculations and		



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			solve missing number problems						
Number	Number - Multiplication and Division								
3 and 4 yr olds	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		

solve one-s problems involving multiplicati and division calculating answer usin concrete objects, pictorial representa and arrays the	multiplication multi and division division facts for the the 3 2, 5 and 10 multip multiplication tables, including recognising odd and even math numbers state		identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers  know and use the vocabulary of prime numbers, prime	identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers  know and use the vocabulary of prime numbers, prime
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support of the teacher  Through grouping and sharing smal	multiplication and division within the multiplication tables and write	multiplication tables that they know, including for two-digit numbers times one-digit	1; dividing by 1; multiplying together 3 numbers recognise and use factor	factors and composite (non-prime) numbers  establish whether a number up to 100	factors and composite (non-prime) numbers recognise and use square
quantities, p begin to understand: multiplication and division; doubling numbers and quantities; a finding simpl fractions of objects, numbers and quantities.  They make connections between arre number patte	multiplication  (*), division (÷)  and  equals (=) signs  show that  multiplication  of 2 numbers  can be  done in any order  (commutative)  and division of 1  number by  another cannot  another cannot	numbers, using mental and progressing to formal written methods  solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are	pairs and commutativity 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	is prime and recall prime numbers up to 19  multiply numbers up to 4 digits by a one or two-digit number using a formal written method, including long multiplication for two-digit numbers  multiply and divide numbers mentally,	numbers and cube numbers, and the notation for squared (2) and cubed (3)  multiply and divide whole numbers and those involving decimals by 10, 100 and 1000  multiply multi-digit numbers up to 4 digits by a two-digit whole
	and division, using materials, arrays,		to multiply two-digit	drawing upon known	number using the



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	and counting in 2s, 5s and 10s	repeated addition, mental methods, and multiplication and division facts, including problems in contexts	connected to m objects	numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context  multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000  recognise and use square numbers and	method of long multiplication  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  divide numbers up to 4 digits by a  two-digit number using the formal written method of

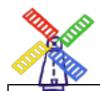
			cube numbers,	



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				the notation for	short division
				squared (2) and	where
				cubed (³)	appropriate,
					interpreting
				solve problems	remainders
				involving	according to the
				multiplication	context
				and division,	
				including using	perform mental
				their	calculations,
				knowledge of	including with
				factors and	mixed operations
				multiples,	and large
				squares and	numbers
				cubes	
					use their
				solve problems	knowledge of the
				involving	order of
				addition,	operations to
				subtraction,	carry out
				multiplication	calculations
				and division	involving the 4
				and a	operations
				combination of	
				these, including	solve addition
				understanding	and
				the meaning of	subtraction
				the	



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					equals sign  solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	multi-step problems in contexts, deciding which operations and methods to use and why  solve problems involving addition, subtraction, multiplication and division  use estimation to check answers to calculations and determine, in the context of a



#### **Number = Fractions**

3 and 4 yr olds	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		recognise, find and name a half as one of two equal parts of an object, shape or quantity	Recognise, find and name a half as one of two equal parts of an object, shape or quantity (yr1)  recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity  write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2.	recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators  compare and order unit fractions, and fractions with the same denominators  recognise and show, using diagrams, equivalent fractions with small denominators  add and subtract fractions with	practise counting using simple fractions and decimals, both forwards and backwards  Reason about the location of mixed numbers in the linear number system  Convert mixed numbers to improper fractions and vice versa  recognise and show, using diagrams, families of common equivalent	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths  recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example,2/5 + 4/5 = 6/5 = 1 1/5]  compare and order fractions	use common factors to simplify fractions; use common multiples to express fractions in the same denomination  compare and order fractions, including fractions > 1  add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply proper fractions and mixed

	Pupils	the same denominator within one whole	fractions	whose denominators are all	
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		should count in fractions up to 10, starting from any number and using the 1/2 and 2/4 equivalence on the number line (for example, 1 1/4, 1 2/4 (or 1 1/2), 1 3/4, 2).	[for example, 5/7 + 1/7 = 6/7]  solve problems that involve all of the above  recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	add and subtract fractions with the same denominator  solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number  recognise and write decimal equivalents of any number of tenths or hundredths  find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in	multiples of the same number  add and subtract fractions with the same denominator and denominators that are multiples of the same number  multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams  read, write, order and compare numbers with up to three decimal places  read and write decimal numbers as fractions [for example, 071 = 71/100]	numbers by whole numbers, supported by materials and diagrams  multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 x 1/2 = 1/8]  divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6 ]  add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent  fractions use written division
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		the answer as ones, tenths and hundredths  recognise and write decimal equivalents of any number of tenths or hundredths  compare numbers with the same number of decimal places up to two decimal places	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with two decimal places to the nearest whole number and to one decimal place	methods in cases where the answer has up to two decimal places identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places
			per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal	places  solve problems which require answers to be rounded to specified degrees of accurace multiply one-digit numbers with up to two decimal places by whole numbers use written
			solve problems	division methods

						involving number up to three decimal places	in
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				read, write,	cases where the
				order and	answer has up to
				compare	two decimal places
				numbers with up	,
				to three	associate a
				decimal	fraction with
				places	division and
				piaces	calculate decimal
				recognise and	fraction
				_	equivalents [for
				use thousandths	
					example, 0375]
				and	for a
				relate them to	simple fraction
				tenths,	[for example,
				hundredths and	3/8 ]
				decimal	
				equivalents	recall and use
					equivalences
					between
					simple fractions,
					decimals and
					percentages,
					including in
					different
					contexts
					compare and
					order fractions,
					including
					fractions > 1
					11 40110115 / 1
					dalua problema
					solve problems
					involving the



Measure	ement						calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
3 and 4 yr olds	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Make comparisons between objects relating to size, length, weight and capacity.  Begin to describe a sequence of events, real or fictional, using	Compare length, weight and capacity.	compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] measure and begin to record the following: lengths	recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value  find different combinations of coins that equal the same amounts of money	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) measure the perimeter of simple 2D shapes	Find the area of rectilinear shapes by counting squares  Estimate, compare and calculate different measures, including money in pounds and pence  Convert between different units of	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres calculate and compare the area of rectangles (including squares), and	use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal



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following: mass/weight money of the compare, describe and solve practical problems for: mass/weight ffor example, heavier than, lighter than] length/height in any compare, describe and solve theavier than, length/reight in any compare, describe and solve theavier than, length/reight in any compare, describe and solve theavier than, length/reight in any compare, describe and solve theavier than, length/reight in any compare, direction temperature themperature the measure and calculate the estimate end randous units of a rectilinear figure (including sing squares) in content the area of of a rectilinear thoracle calculate the eprimeter of a rectilinear thoracle calculation the area of of a rectilinear thoracle calculate the perimeter of a rectilinear thoracle calculate estimate and 12- hour and 24- hour clocks to estimate and read time with increasing accuracy to the measure, using to arctillangures) in countertieve and ifferent units of measure the area of of a rectilinear the area							
measure and begin to record the begin to record begin to record the begin to record the begin to record and begin to record the begin to record the begin to record addition and pin involving the begin to record the printered thing the time from an analogue clock, including using squares the the dread the time from an analogue clock, including using squares in the record time from an analogue clock, including squares in the record time from an analogue clock, including squares in the record time from an analogue clock, including squares in the record time from an analogue clock, including squares in the area of the area of time from an analogue clock, including squares in the area of time from an analogue clock, inclu	1 ' 1	and heights					places
begin to record the involving following: addition and subtraction of money of the compare, some unit, describe and solve example, heavy-light, heavier than, lighter than] length/height in any compare, describe and solve example, the mearest problems for: capacity and older for example, the length for example, following for example,	first, then					· ·	
the following: addition and mass/weight subtraction of mosey of the some unit, describe and solve practical problems for: mass/weight for example, heavy/light, heavier than, and lighter than) length/height in any compare, describe and solve compare, describe and lighter than of the measure of the problems for: capacity and volume [for example, practical problems for: capacity and volume [for example, full/empty, more than, laft, half full, quarter] and measure and begin to record begin to record compare and compare to the tell and write the time from an calculate the time from an analogue clock, including using practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing practical to the time from an analogue clock, including susing			practical		kilometre to	square	solve problems
following: mass/weight subtraction of money of the compare, describe and including giving practical contexts with a clauding using problems for: chaose and use mass/weight [for example, theavier than] lighter than] length/height in any describe and solve (kg/g): practical temperature problems for: compare, direction and volume [for example, capacity capacity capacity for lumber of the mearest including using including using problems for: conspare dociment of the mearest including using solve change including using from L NOII, and compare and lighter the appropriate standard units the appropriate example, and 12-hour and 24-hour clocks estimate, compare and lighter than] length/height in any accuracy to the nearest including money in the mearest including money in the mearest in compare and solve problems for: (°C): capacity capacity (litres/ml) to and volume [for example, full/empty, more than, less than, half, half full, quarter] and measure and begin to record compare and compare and compare and begin to record compare and compare and colculate the perimeter and real figure (including squares) in calculating and anglogue lock, from L To XII, and 12-hour and 22-hour clocks estimate and colculate metres and different and measure and colculate metres and and usable and calculat		begin to record	context	using both £ and	metre; hour to	centimetres	involving the
mass/weight subtraction of money of the compare, describe and solve change including using practical problems for: change, theavier than, lass right practical legrature of a measure and collect the estimate and calculate the problems for: change mass/weight for example, theavier than, and lighter measure than and lighter for any compare, describe and solve (kg/g): practical temperature for capacity (litres/ml) to and volume [for example, theavier than, less than, half, half full, apureter] and measure and begin to record compare and compare and begin to record compare and compare and colledare the estimate and calculate the perimeter of a rectilinear fitting the liand write the time from an analogue clock, and 24-hour and and 24-h		the	involving	pin	minute]	(cm2) and	calculation and
money of the same unit, including giving of a rectilinear of a rectilinear of a compare, of a rectilinear of a squares) in convert between than less than, less than, laft, half full, quarter land measure and begin to record in proplems for: compare, addressed and solve than, less than, half, half full, quarter land assure and begin to record in proplems for: compare and compare than less than and same and begin to record of a compare and compare and begin to record of a compare and compare and begin to record of a compare and compare and compare than, less than, half, half full, quarter land and begin to record of a compare and compare and compare and compare than, less than, half, half full, quarter land and begin to record of a compare and compare and compare and compare than less not a compare and compare an		following:	addition and	practical contexts		square metres	conversion of
money of the same unit, describe and solve practical problems for: mass/weight ffor example, describe and solve practical problems for: measure, including using problems for: measure properties and lighter than] lighter direction and solve compare, describe and solve compare, describe and solve for problems for: the area of including using figure (including saquares) in certimetres and measure problems for: and 12-hour and standard units to estimate and measure problems for: the area of a decimal places and standard units to estimate and solve compare, describe and solve (kg/g): and to estimate and estimat		mass/weight	subtraction of	'	measure and	(m2) and	units of
describe and solve change including giving change practical problems for: mass/weight [for example, heavier than, lighter measure describe and solve (m/cm): mass will practical problems for: measure than] lighter measure describe and solve (m/cm): mass munter and legard the nearest increasing and volume [for example, practical problems for: (%C); capacity and volume [for example, than, less than, half, half full, quarter] and measure and begin to record bears of measure and begin to record solve and begin to record compare and begin to record compare and begin to record sincluding using fincluding using fincluding using squares) in convert between decimal figure (including squares) in convert between different units of metric aparopriate and squares) in convert between decimal places of metric aparopriate and 12-hour and 22-hour and 2		_	money of the	tell and write the	calculate the	estimate	measure, using
describe and solve change change change change change change change change practical problems for: mass/weight [for example, standard units heavy/light, heavier than, lighter measure chasple and solve gractical problems for: measure than] length/height in any cascuracy to the practical problems for: (%2); capacity and volume [for example, than, left full, empty, more than, left full, full/empty, more than, laff, half full, quarter] wessels weight for example, change and begin to record because and begin to record since and begin to record since and begin to record camps and discovers and analogue clock, including using squares; in cluding using squares; including using squares; including using squares; in cantilente and from I to XII, and 12-hour and 22-hour clocks estimate and read time with calculate where appropriate and read time with and 22-hour and 22-hour clocks estimate and read time with and 22-hour and 22-hour clocks estimate and read time with and calculate metre: certimetre and millienter gram and kilometre of and millilinter gram and kilometre of and millilitre) fractions and millilitre of and millilitre promations and spropriate unit, using rulers, scales, thermometers and measuring vessels with the more and the problems for the nearest minute; such as a clock, and propriate unit, using rulers, and measuring and measuring and measure and begin to record compare and solve example.		compare.	same unit.	time from an	perimeter	the area of	decimal
solve practical problems for: chose and use mass/weight [for example, heavy/light, heavier than, lighter than] length/height in any compare, describe and solve practical problems for: than] (%g): and compare practical temperature than problems for: the nearest and vescions for the nearest full/empty, more than, less than, half, half full, quarter] are measure and begin to record solve measure and begin to record solve seximate and problems for: chose and use appropriate standard units and 12-hour and 24-hour clocks appropriate a			•	analogue clock	of a rectilinear		notation
practical problems for: choose and use mass/weight [for example, heavier than, lighter than] length/height in any compare, describe and solve proclical problems for: (°C) capacity and volume [for example, problems for: (°C) capacity and volume [for example, tagengle, problems for: (°C) capacity and volume [for example, tagengle, tagengle, tagengle, tagengle, than, less than, half, half full, plaff full, quarter] wessels were measure and begin to record of measure and begin to record and measure and begin to record and solve ocompare and begin to record compare and compare and compare and compare and compare and compare and compare time in measure tagengle, convert between different units and certimetres and metres of example, centimetre and metre: (calculate metre: compare and kilometre and metre: different measure, centimetre and metre: solve problem metre: and millimiter metre: solve problem metres and metre: compare and compare and compare different units of measure example, centimetres and metres of example, compare and control of metric measure (for estimate, compare and different minits and metre: compare and compare time in Convert between different units and centimetres and metres of example, compare and compare time in Convert between different units appropriate where appropriate with increasing and compare time in Convert between different minits and metre: solve problems for convert between different minits and metre: solve problems for convert between different minits and metre: solve problems for convert between different minits and metre: solve problems for convert between different minits appropriate unit, solve where and miles and metre: solve problems for convert between different minits appropriate unit, solve where approximate approx		solve		1 -		ii rogalar shapes	un to three
problems for: mass/weight [for example, heavy/light, heavier than, lighter than] length/height in any compare, describe and solve practical problems for: capacity capacity from I to XII, and 12- hour and 24-hour clocks  estimate, estimate, compare and calculate increasing accuracy to the nearest including money including money including money from E to XII, and 12- hour and 24-hour clocks  estimate, estimate, example, estimate, example, compare and calculate different increasing accuracy to the nearest including money including money including money including money and compare and kilometre and metre: weample, estimate, example, example, including money including money including money including money including money and kilometre and millimetre; gram and kilometres including money includ		practical	criarigo	1 2	, , , , , , , , , , , , , , , , , , ,	convert hetween	· •
mass/weight [for example, and 12-hour and 24-hour clocks standard units to estimate and neasure for example, heavy/light, heavier than, and lighter measure than] length/height in any compare, direction any solve (kg/g): practical temperature problems for: capacity and volume [for example, guring and volume [for than, less than, half, half full, quarter] and measure and begin to record compare and lighter to the stimate and read time with calculate metre; solve problem solve (kg/g): and compare time in compare than, less than, half, half full, quarter] and measure and begin to record compare and compare and begin to record compare and begin to record compare and compare and compare and compare and standard and 24-hour clocks estimate, esti		!	ahaada and uda				•
example, heavy/light, to estimate and lighter than, lighter than] length/height in any compare, describe and solve (kg/g): and compare to problems for: (°C): capacity and volume [for example, than, less than, half, half full, quarter] and measure and begin to record in measure and begin to record compare and lighter to estimate and estimate and estimate and estimate and estimate, compare and kilometre and miles and kilometre and metre; contimetre and metre; solve problem measures, including money in pounds and pence in louding money in pounds and pence in louding money in pounds and pence in louding money in pounds and pence in litre in convert between different units of measure example, wising rulers, sociols, and multiples and hours; use example, wessels and measuring wessels and begin to record compare and windinght in and midnight in the minutes and begin to record compare and willow the perimeters and minutes and inches, pounds inches, pounds		ı ·		1			
heavy/light, heavier than, lass than, lass than, lass than, half, half full, quarter]  heavy/light, to estimate and lighter to estimate and lighter and lighter measure read time with increasing accuracy to the measures, including money in pounds and pence and compare and compare to time in compare and calculate and calculate and compare and calculate and calculate and calculate and calculate and calculate and metre; compare and calculate and metre; compare and calculate and metre; compare and calculate and metre; continuetre and metre; solve problem metre; continuetre and metre; contin		1 1			merres		appropriate
heavier than, lighter than, lighter than] and measure length/height in any accuracy to the compare, describe and solve (kg/g): practical problems for: capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] wessels and begin to record than less than half, half full, quarter] wessels and measure length/height in and correct different mits of measure length/height in and correct different mits of measure length/height in and common limperial units and length in cread time with increasing different measure, will measure length/height in and colculate different measures, metre; solve problem metre; solve problem metre; ochrimetre and metre; centimetre and metre; centimetre and millimetre; gram and kilometres different metre; solve problem metre; centimetre and metre; centimetre and metre; centimetre and involving uneq sharing and grouping using file pounds and kilogram; problem metre; centimetre and metre; centimetre and metre; centimetre and involving uneq sharing and grouping using file pounds and kilogram; problem metre; cord and kilogram; prouping uneq sharing and different mitre in cord inpounds and kilogram; prouping uneq sharing and grouping uneq sharing and and kilogram; litre and millimetre; gram and kilogram; prouping uneq sharing and areasons, metre; lour different mitre and involving uneq and kilogram; litre and millimetre; gram and kilogram; litre and millimetre; and metre; centimetre and involving uneq and kilogram; litre and millimetre; gram and kilogram; litre and kilogram; litre and millimetre; gram and kilogram; litre and kilogram; litre and kilogram; litre and		· · · .		24 Hour Clocks	actimata	<b>,</b>	Convent between
lighter than] measure length/height in any accuracy to the measures, including money describe and (m/cm); mass minute; record and compare temperature (litres/ml) to example, full/empty, more than, less than, half, half full, quarter] we seed to measure and begin to record to measure and measure and measure and begin to record to measure includiate different and metre; centimetre and minute; record in pounds and pence including money minute; record in pounds and pence including money minute; record in pounds and pence metre; centimetre and millimetre; gram and kilogram; grouping using centimetre; different units of different units of measure for example, with the measure of minutes and for measure than, less than, half, half full, quarter] and measuring wessels and measuring of the measure of measure, centimetre and measures, including money measures, including money of measures, i				antimata and	,	•	
than]  length/height in any accuracy to the nearest compare, direction nearest minute; record and kilogram; grouping using capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]  measure and begin to record compare and begin to record and begin to record compare and direction nearest many accuracy to the nearesing accuracy to the nearest minutes and compare time in convert between different units of measure [for example, scales, as o'clock, and measuring vessels and begin to record compare and different mints of measure involving uneq millimetre; centimetre and metre; centimetre and metre; centimetre and metre; centimetre and metre; contimetre and metre; centimetre and metre including metre per metre; centimetre and metre per metre; centimetre and metre and metre per m		· · · · · · · · · · · · · · · · · · ·					
any accuracy to the nearest including money and involving uneq sharing and and wilding money in pounds and pence solve (kg/g); and compare proctical temperature time in Convert between problems for: capacity (litres/ml) to and volume [for example, full/empty, more than, less than, half, half full, quarter] where and begin to record to measure and begin to record compare and windinght and proposed and measure and begin to record compare and winding the measures including money in pounds and pence in pounds and kilogram; solve problem involving uneq sharing and and kilogram; grouping using them in the pence in pounds in pounds and pence in pounds in pounds and kilogram; grouping using them in th		1 -					Kilometres
compare, describe and solve (kg/g); and compare time in (°C); capacity capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] and measure and begin to record compare and begin to record and midnight and compare and discording in pounds and pence in pounds and pence in pounds and pence and compare time in content in pounds and pence in pounds and pence in pounds and pence and millimetre; gram and kilogram; grouping using the nearest and compare different units of fractions and millimetre; gram and kilogram; grouping using the minutes and different units of measure [for understand and use approximate equivalences shapes with the material units as o'clock, a.m./p.m., and measuring wessels afternoon, noon and midnight are compare and involving uneq sharing and kilogram; grouping using them willimetre; gram and kilogram; grouping using the millimetre; gram and kilogram; grouping using the millimetre; gram and kilogram; grouping using them willimetre; gram and kilogram; grouping using the millimetre; gram and kilogram; littre themowelds of millimetre; gram and kilogram; litre themowelds of millimetre; gram and kilogram; litre themowelds of millimetre; gram and willimetre; gram and w		[ than]		1			l
describe and solve (kg/g); temperature time in temperature (in pounds and pence problems for: (°C); capacity (litres/ml) to and volume [for example, full/empty, more than, less than, half, half full, quarter] wessels measure and begin to record solve practical (kg/g); temperature time in different units and different units of masure (for example, understand and example, to example, to example, to example, to equivalences than, less than, and measuring the measure and to example that the measure and to begin to record to make the measure and to compare and to minute; record in pounds and pence millimetre; gram and kilogram; thereof and kilogram; threm of them in the minute; record and kilogram; threm of them in the minute; record different units of measure and time in them in the minute; record and kilogram; threm of them in th			•	1 '	· '		•
solve practical temperature time in Convert between problems for: (°C); capacity terms of capacity (litres/ml) to seconds, and volume [for example, full/empty, more than, less than, half, half full, quarter] and measure and begin to record compare and				nearest	- '		
practical temperature time in topolems for: (°C); capacity terms of capacity (litres/ml) to seconds, and volume [for the nearest than, less than, half, half full, quarter] and measure and begin to record compare and			, ,		in pounds and pence	5	_
problems for: capacity (litres/ml) to seconds, and volume [for example, full/empty, more than, less than, half, half full, quarter] measure and begin to record  responds  terms of seconds, minutes and seconds, minutes and loss conds, minutes and seconds, minutes and loss conds, minutes and loss and millilitre)  fractions and multiples  recognise tha shapes with the same areas can have areas can have and common loss and multiples  recognise tha shapes with the same areas can have areas can have and common loss conds, metres to minute 1  and millilitre)  fractions and multiples  recognise tha shapes with the same areas can have and common loss and miliples			(kg/g);	and compare		-	
capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]  measure and begin to record  capacity  (litres/ml) to seconds, minutes and the nearest minutes and the		practical	temperature	time in		litre	_
and volume [for example, full/empty, more than, less than, half, half full, quarter]  measure and begin to record  the nearest appropriate unit, appropriate unit, appropriate unit, appropriate unit, appropriate unit, appropriate unit, hours; use example, wocabulary such as o'clock, as o'clock, as o'clock, as o'clock, as o'clock, as o'clock, and measuring wessels  measure and begin to record  and volume [for the nearest minutes and hours; use example, wocabulary such skilometre to measure to measure and the nearest and minutes and [for understand and use approximate recognise that shapes with the measure to measure and minute]  measure and the nearest minutes and inches, pounds  measure and the nearest minutes and inches, pounds  minutes and minutes and inches, minute inches, pounds		problems for:	(°C); capacity	terms of	different units	and millilitre)	fractions and
example, appropriate unit, using rulers, scales, half, half full, thermometers and measure and begin to record compare and  example, appropriate unit, using rulers, socabulary such thours; use example, kilometre to equivalences shapes with the equivalence sh		capacity	(litres/ml) to	seconds,	of measure		multiples
full/empty, more than, less than, scales, half, half full, quarter] using rulers and begin to record compare and scales, as o'clock, as o'		and volume [for	the nearest	minutes and	[for	understand and	
full/empty, more than, less than, scales, half, half full, quarter] and measure and begin to record compare and scales, than, less than, scales, as o'clock, as o'clock, as o'clock, as o'clock, metre; hour to mequivalences between metric same and minute] and common different perimeters and medium metre; hour to mequivalences between metric same areas can have and common imperial units such as and vice versor and medium metres and inches, pounds		example,	appropriate unit,	hours; use	example,	use approximate	recognise that
than, less than, scales, half, half full, thermometers and measure and begin to record compare and that thermometers as o'clock, as o'clock, as o'clock, as o'clock, and metre; hour to metre and metric same areas can have areas can have areas can have and minute]  The provided Half such as and common imperial units and vice versor and metre; hour to metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre; hour to minute]  The provided Half such as a metre in the provided Half such as a me		full/empty, more		vocabulary such	kilometre to	equivalences	shapes with the
half, half full, thermometers a.m./p.m., minute] units areas can have and measuring vessels afternoon, noon and midnight such as and vice verse begin to record compare and			_	1 '	metre; hour to	between metric	same
quarter] and measuring morning, and common different vessels afternoon, noon and midnight such as and vice verso begin to record compare and				1	minute1	units	areas can have
vessels afternoon, noon imperial units perimeters measure and begin to record compare and inches, pounds				1		and common	different
measure and begin to record compare and such as and vice verso inches, pounds			_	1 3			perimeters
begin to record compare and inches, pounds		measure and	. 233013	1 '		•	and vice versa
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The contraction of the contracti			•	know the number of		•	
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recognise and know the value of different denominations of coins and notes  sequence events in chronological order using language [for example, before and	volume/capacity and record the results using >, < and =  solve problems with addition and subtraction:us ing concrete objects and pictorial representations, including those involving numbers, quantities and measures	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].	solve problems involving converting between units of time  use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling  estimate volume	calculate the area of parallelograms and triangles  recognise when it is possible to use formulae for area and volume of shapes  calculate, estimate and compare volume of cubes and cuboids using
after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]  recognise and use language relating to dates, including days of the week, weeks, months and years	measures  tell the time to the hour and half past the hour and draw the hands on a clock face to show these times (Year 1)  tell and write the time to five minutes,		[for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3]

tell the time to the hour and half past the hour and	including quarter past/to the hour and draw the hands on a clock face to show		
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		draw the hands on a clock face to show these times	these times  know the number of minutes in an hour and the number of hours in a day				
Geome	try = Prope	rties of Sh	ape				
3 and 4 yr olds	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'.  • Select shapes appropriately: flat	Select, rotate and manipulate shapes in order to develop  spatial reasoning skills.  Compose and decompose shapes so that children can recognise a shape can have other shapes within it, just as	recognise and name common 2D and 3D shapes, including: 3D shapes [for example, cuboids (including cubes), pyramids and spheres].  Recognise and name common 2D and 3D shapes, including: 2D	compare and sort common 2D and 3D shapes and everyday objects. identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line	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	identify acute and obtuse angles and compare and order angles up to two right angles by size  compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles  draw given angles, and measure them in degrees (o)  identify: -angles at a point and one whole	draw 2D shapes using given dimensions and angles  6 6C  Geometry - properties of shape 13  Geometry -
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building, a triangular pattern for a roof, etc. • Combine shapes to make new ones - an arch, a bigger triangle, etc.		example, rectangles (including squares), circles and triangles].	arrange combinations of mathematical objects in patterns and sequences  identify and describe the properties of 3D shapes, including the number of edges, vertices and faces	are greater than or less than a right angle  draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them  identify horizontal and vertical lines and pairs of perpendicular and parallel lines	symmetry in 2D shapes presented in different orientations  complete a simple symmetric figure with respect to a specific line of symmetry	-angles at a point on a straight line and 1/2 a turn (total 180o) -other multiples of 90o 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 sides and angles identify horizontal and vertical lines and parallel lines (Year 3)	shape 2 Vertically opposite angles recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles  compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons  illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice th
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		<b>VV 170 TO O</b>				identify 3D shapes, including cubes and other cuboids, from 2D representations	radius  draw 2D shapes using given dimensions and angles  recognise, describe and build simple 3D shapes, including making nets
Geometi 3 and 4 yr olds	ry = Positi	on and Dire	Year 2	Year 3	Year 4	Year 5	Year 6
Understand position through words alone - for example, "The  bag is under the table," - with no pointing. • Describe a familiar route. • Discuss routes	Draw information from a simple map.  Continue, copy and create repeating patterns.	describe position, direction and movement, including whole, half, quarter and three-quarter turns  Pupils use the language of position, direction and	use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing		Describe positions on a 2D grid as coordinates in the first quadrant  plot specified points and draw sides to complete a given polygon	Describe positions on a 2D grid as coordinates in the first quadrant (Year 4) identify, describe and represent the position of a shape following	describe positions on the full coordinate grid (all four quadrants)  draw and translate simple shapes on the coordinate plane, and reflect them

	motion,	between rotation as a turn and in	describe movements	a reflection or	in the axes
		terms of right			



and locations, using words like and right, top, and right, top, and right and and appropriate and locations, using words like and appropriate	9
'in front of' middle and and translations of a appropriate	
and 'behind'.   bottom, on three-quarter   given language, and	
top of, in front turns (clockwise unit to the know that	
Talk about and   left/right   the shape has	
identify the between, around, anti-clockwise). and up/down not changed	
patterns around near, close and near	
them. For far, up and down, tell the time to identify lines of	
example, stripes forwards and the hour and symmetry in 2D	
on clothes, backwards, half shapes	
designs on rugs inside and past the hour presented in	
and wallpaper. outside. and draw the different	
Use informal hands orientations	
language like Pupils on a clock face (Year 4)	
'pointy', 'spotty', practise counting to show these	
'blobs', etc. (1, 2, 3), times (Year 1)	
• Extend and ordering (for	
create ABAB example, first, tell and write	
patterns - stick, second, third), the time to	
leaf, stick, leaf. and to five	
· Notice and indicate a minutes,	
minutes,	
quantity (10)	
quarter quarter	
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The flour und	
S.     S. an me mana	
Clock face to	
they are	
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fluent.	
know the number	
of minutes in an	
hour and the	
number of	
hours in a	
day	



#### **Statistics:**

3 and 4 yr olds	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Experiment with their own symbols and marks, as well as numerals.			interpret and construct simple pictograms, tally charts, block diagrams and simple tables  ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	interpret and present data using bar charts, pictograms and tables	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs  solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	solve comparison, sum and difference problems using information presented in a line graph  complete, read and interpret information in tables, including timetables	interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average