



Year 4  
learning  
guide

# Maths

What will be covered in year 4

Autumn term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12				
Spring term	Place value FREE TRIAL		VIEW	Addition and subtraction		VIEW	Measurement Area		VIEW	Multiplication and division A		VIEW	Consolidation			
	Multiplication and division B			VIEW	Length and perimeter		VIEW	Fractions		VIEW	Decimals A		VIEW			
	Measurement				VIEW			Number			VIEW			Statistics		VIEW
	Number			VIEW			Measurement			VIEW			Geometry		VIEW	
Summer term	Decimals B		VIEW		Measurement		VIEW	Money			VIEW	Measurement		VIEW		Consolidation
	Time			VIEW	Geometry			VIEW	Shape			VIEW				
	Measurement				VIEW	Statistics			VIEW							
	Number			VIEW		Geometry		VIEW		Position and direction		VIEW				

*By the end of Year 4, children are expected to have been taught...*

## Number – number and place value

### Statutory requirements

Pupils should be taught to

- count in multiples of 6, 7, 9, 25 and 1000
- find 1000 more or less than a given number
- count backwards through zero to include negative numbers
- recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- order and compare numbers beyond 1000
- identify, represent and estimate numbers using different representations
- round any number to the nearest 10, 100 or 1000
- solve number and practical problems that involve all of the above and with increasingly large positive numbers
- read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

## Number – addition and subtraction

### Statutory requirements

Pupils should be taught to:

- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- estimate and use inverse operations to check answers to a calculation
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

## Number – multiplication and division

### Statutory requirements

Pupils should be taught to:

- recall multiplication and division facts for multiplication tables up to  $12 \times 12$
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
- recognise and use factor pairs and 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 to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as  $n$  objects are connected to  $m$  objects.

## Number – fractions (including decimals)

### Statutory requirements

Pupils should be taught to:

- recognise and show, using diagrams, families of common equivalent fractions
- count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- add and subtract fractions with the same denominator
- recognise and write decimal equivalents of any number of tenths or hundredths
- recognise and write decimal equivalents to  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- round decimals with one decimal place to the nearest whole number
- compare numbers with the same number of decimal places up to two decimal places
- solve simple measure and money problems involving fractions and decimals to two decimal places.

## Measurement

### Statutory requirements

Pupils should be taught to:

- Convert between different units of measure [for example, kilometre to metre; hour to minute]
- measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- find the area of rectilinear shapes by counting squares
- estimate, compare and calculate different measures, including money in pounds and pence

## Geometry – properties of shapes

### Statutory requirements

Pupils should be taught to:

- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- identify acute and obtuse angles and compare and order angles up to two right angles by size
- identify lines of symmetry in 2-D shapes presented in different orientations
- complete a simple symmetric figure with respect to a specific line of symmetry.

## Geometry – position and direction

### Statutory requirements

Pupils should be taught to:

- describe positions on a 2-D grid as coordinates in the first quadrant
- describe movements between positions as translations of a given unit to the left/right and up/down
- plot specified points and draw sides to complete a given polygon.

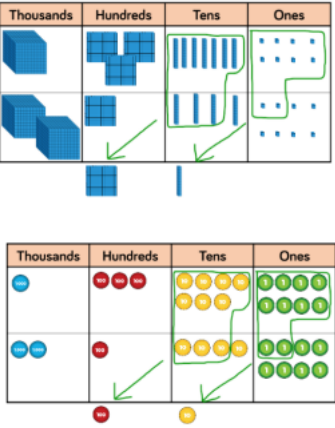
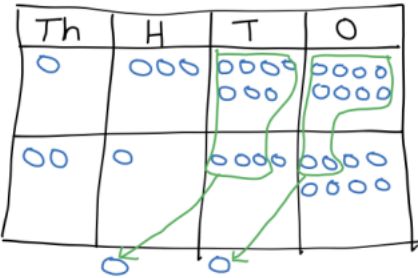
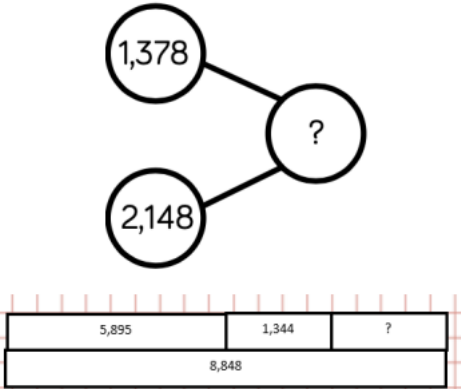
## Statistics

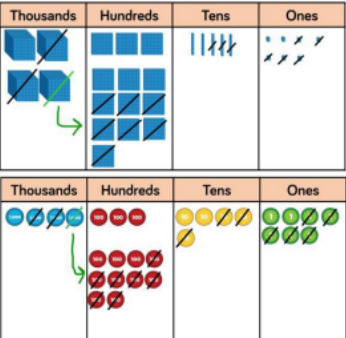
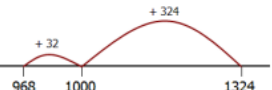
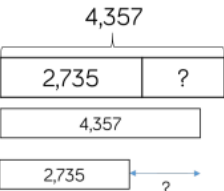
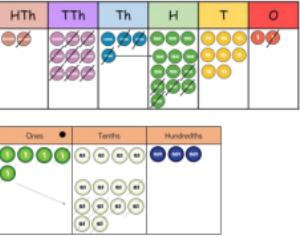
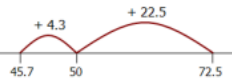

### Statutory requirements

Pupils should be taught to:

- 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.



+ Skill:	Concrete:	Pictorial:	Abstract:
Y 4 Use formal written methods of columnar addition. HTO + HTO ThHTO + HTO ThHTO + ThHTO	All children use <b>base 10/place value counters/plain counters and place value charts</b> to introduce/support formal column method with four-digit numbers: 	Ensure children <b>draw (then write) their calculation alongside any concrete resources</b> so they can see the links to the written column method:  Draw/use part-whole and bar models: 	Pupils continue to practise both mental methods and column addition and subtraction with increasingly large numbers to aid fluency. Column method of addition: $\begin{array}{r} 1378 \\ + 2148 \\ \hline 3526 \\ 11 \end{array}$ = 3,526 Estimate and use inverse operations to check answers to a calculation. Estimate, compare and calculate different measures, including money in pounds and pence. Pupils build on their understanding of place value and decimal notation to record metric measures, including money.

- Skill:	Concrete:	Pictorial:	Abstract:
Y R 4 HTO - HTO ThHTO - TO ThHTO - HTO ThHTO - ThHTO	All children use <b>base 10/place value counters/plain counters and place value charts</b> to introduce/support formal column method:  Concrete resources should be used alongside charts and mats; place value charts, ten frames, part-whole and bar models.	Draw blank number lines to find the difference by counting back or on: $1324 - 968 = 356$  Represent base ten or the place value counters pictorially in drawn place value charts; remembering to show what has been exchanged. Draw part-whole and bar models 	Pupils continue to practise both mental methods and column subtraction with increasingly large numbers to aid fluency. Column method of subtraction: $\begin{array}{r} 1374 \\ - 968 \\ \hline 406 \end{array}$ Ensure children draw/write out their calculation alongside any concrete resources so they can see the links to the written column method and fully understand when to exchange. Estimate answers and use inverse to check. Solve subtraction two-step problems in contexts, deciding which operations and methods to use and why.
Y r 5 Decimals up to 2dp (eg 72.5 - 45.7) Y r 6 Decimals up to 3dp	All children place value counters/plain counters and place value charts to introduce column method of subtracting five digit or more and decimal numbers: $294,382 - 182,501 = 111,881$  Concrete resources should be used alongside charts and mats; place value charts, ten frames, part-whole and bar models.	Draw blank number lines to find the difference between numbers, including decimal numbers, by counting back or on: $72.5 - 45.7 =$  Draw part-whole and bar models: 	Column method of subtraction: $\begin{array}{r} 72.5 \\ - 45.7 \\ \hline 26.8 \end{array}$ Take away decimals mentally or with jottings: $72.5 - 45.7 =$ $72.5 - 40 = 32.5$ $32.5 - 5 = 27.5$ $27.5 - 0.7 = 26.8$ Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. Solve multi-step problems in contexts, deciding which operations/methods to use and why. Use knowledge of the order of operations to carry out calculations involving subtraction.



# Literacy—writing

By the end of each term, children are expected to...

## Autumn Term

Use the determiner a/an appropriately  
CL for more obscure contexts - shops, hotels, companies, landmarks, etc.  
Use expanded noun phrases  
Sometimes swap the position of main and subordinate clauses  
Sometimes use a comma to separate main clause from subordinate clause  
Begin to use a comma after fronted adverbials  
Use a range of conjunctions  
Often use commas in a list  
Use apostrophe for omission and possession (singular and regular plural)  
Maintain consistency in tense  
Begin to use standard English forms for verb inflections (or example, we were instead of we was, or I did instead of I done)  
singular possession

## Spring Term

Use determiners that are quantifiers e.g. some, every, these, those  
Begin to vary position of adverbial in a sentence using a comma correctly  
Often use paragraphs  
Often use pronouns/nouns within and across sentences to aid cohesion and avoid repetition  
Use of inverted commas and other punctuation to indicate direct speech  
Attempt to use 1st and 3rd person  
Use a range of conjunctions  
Maintain consistency in tense  
Use commas in a list  
Use commas to separate main clause from subordinate clause  
Use apostrophe for omission and possession (singular/plural possession)  
Use standard English forms for verb inflections

## Summer Term

Use determiners appropriately a/an, these/those, my/your, etc  
Write sentences with increasing grammatical control in dialogue, narrative and non-fiction  
Choose effective conjunctions  
Demarcate sentences with increasing security using a comma correctly to separate clauses  
Use 1st and 3rd person more accurately  
Often use the apostrophe for omission and possession correctly  
Use a comma after fronted adverbials  
Use paragraphs more accurately  
Maintain consistency in tense  
Maintain form  
Use standard English forms for verb inflections



## *Literacy— Greater depth writing*

- write effectively and coherently for different purposes, drawing on their reading to inform the vocabulary and grammar of their writing
- develop character through description, actions and dialogue
- 
- make choices about using sentences of different lengths and types
- 
- improve the effect of their writing by making changes when editing (e.g. re-ordering sentences and adapting vocabulary)

# Literacy—reading

By the end of the year children should...

<b><u>Y4</u></b>	
<b>Fluency</b>	read words speedily by working out the pronunciation of unfamiliar words with support, notice where commas create phrasing within sentences read with expression, using the punctuation to support meaning, including multi-clause sentences recite whole poems with awareness of the listener read 140 wpm
<b>Vocabulary</b>	use dictionaries to check the meaning of words use a thesaurus to find synonyms discuss why words have been chosen and the effect these have on the reader explain how words can capture the interest of the reader discuss new and unusual vocabulary and clarify their meaning find meaning of new words using context of the sentence <a href="#">discuss and precisely explain vocabulary that captures the reader's imagination</a> <a href="#">explain precise meaning of new words in context</a>
<b>Inference</b>	ask and answer questions appropriately, including some simple inference infer characters' feelings, thoughts and motives from their stated actions. consolidate the skill of justifying using specific reference points in the text use more than one piece of evidence to justify my answer <a href="#">without prompting, draw inferences and justify with evidence</a>
<b>Prediction</b>	justify predictions using evidence from the text. use relevant prior knowledge as well as details from the text to inform prediction and justify compare predictions with the text <a href="#">provide credible and insightful predictions about what might happen</a>
<b>Explain</b>	discuss words and phrases that capture the reader's interest and imagination identifying how language, structure, and presentation contribute to meaning recognise authorial choices and the purpose of these <a href="#">provide explanations which shows a high level of understanding of the text</a>
<b>Retrieval</b>	confidently skim and scan texts to record details use relevant quotes to support answers to questions retrieve and record information from a fiction or non-fiction text as well as poetry confidently find the cue in the question to support skimming <a href="#">retrieve and record information competently from non-fiction texts</a>
<b>Summarise</b>	use skills developed in y3 in order to write a brief summary of main points, identifying and using important information identify main ideas drawn from more than one paragraph identify themes from a wide range of books summarise whole paragraphs, chapters, or texts highlight key information and record in bullet points, diagrams, maps <a href="#">confidently identify and summarise main ideas drawn from more than one paragraph</a>

Children should be able to read  
and write these.....

Year 3 common exception words





























Word	R	W	Word	R	W	Word	R	W
accident			consider			group		
accidentally			continue			guard		
actual			decide			guide		
actually			describe			heard		
address			different			heart		
although			difficult			height		
answer			disappear			history		
appear			early			imagine		
arrive			earth			increase		
believe			eight			important		
bicycle			eighth			interest		
breath			enough			island		
build			exercise			knowledge		
busy			experience			learn		
business			extreme			length		
calendar			famous			library		
caught			favourite			material		
centre			February			medicine		
century			forward			mention		
certain			forwards			minute		
circle			fruit			natural		
complete			grammar			naughty		

Children should be able to read  
and write these.....

Word	R	W	Word	R	W	Word	R	W
notice			regular					
occasion			reign					
occasionally			remember					
often			sentence					
opposite			separate					
ordinary			special					
particular			straight					
peculiar			strange					
perhaps			strength					
popular			suppose					
position			surprise					
possess			therefore					
possession			though					
possible			thought					
potatoes			through					
pressure			various					
probably			weight					
promise			woman					
purpose			women					
quarter								
question								
recent								

# Grow the code grapheme mat














Phase 2, 3 and 5

 s ss c se ce st sc	 t tt	 p pp	 n nn kn gn	 m mm mb	 d dd	 g gg	 c k ck cc ch	 r rr wr	 h
 b bb	 f ff ph	 l ll le al	 j g dge ge	 v vv ve	 w wh	 x	 y	 z zz s se ze	 qu
 ch tch ture	 sh ch ti ssi si ci	 th	 ng	 nk	 a	 e ea	 i y	 o a	 u o-e ou



# Grow the code grapheme mat

## Phase 2, 3 and 5

 ai ay a a-e eigh aigh ey ea	 ee ea e e-e ie y ey	 igh ie i i-e y	 oa o o-e ou oe ow	 oo ue u-e ew ou ui	yoo  ue u u-e ew	 oo u* oul	 ar a* al*
 or aw au aur oor al a oar ore	 ur er ir or	 ow ou	 oi oy	 ear ere eer	 air are ere ear	zh  su si	

\*depending on regional accent

## How to write capital letters

Use this document to ensure correct letter formation when you are teaching children to form capital letters.

Letter	Capital letter formation phrase
A	From the top, diagonally down to the left, up to the top, diagonally down to the right. Lift up and across.
B	From the top, down, back to the top. Round to the middle, round to the bottom.
C	From the top, curl around to the left to sit on the line.
D	From the top, down, back to the top. Curve right, down to the bottom.
E	From the top, down, back to the top. Across, back. Lift up and across the middle. Lift up and across the bottom line.
F	From the top, down, back to the top. Across, back. Lift up and across the middle.
G	From the top, curl around to the line, carry on up, then straight down. Lift up and across.
H	From the top and down. Space. From the top and down. Lift up and join the lines across the middle.
I	From the top to the bottom and stop.
J	From the top, all the way down, then short curl to the left.
K	From the top, down, up to the middle. Diagonally up, back and diagonally down to the line.
L	From the top, down and across the line.
M	From the top, down, back to the top. Diagonally down, diagonally up. Straight down to the line.
N	From the top, down, back to the top. Diagonally down, then straight up to the top.
O	From the top – all around the o.
P	From the top, down then back up. Curve right to halfway down.
Q	From the top – all around the o. Lift off. Short line diagonally down.
R	From the top, down, then back up. Curve right to halfway down. Diagonally down to the line.
S	From the top, under the snake's chin, slide down and round its tail.
T	From the top, down and stop. Lift up and from the left, make a line across the top.
U	From the top, down and curve right, then straight up to the top.
V	From the top diagonally right to the bottom, then diagonally up to the top.
W	From the top diagonally right to the bottom, diagonally up to the top, diagonally down to the line, then diagonally up again.
X	From the top, diagonally right to the bottom. Space. Start at the top, then diagonally left to the bottom.
Y	From the top diagonally right to the middle. Space. From the top diagonally left to the middle. Straight down to the bottom.
Z	From the top go across, diagonally down to the left and across the bottom.