



EYFS				
EYFS Early Learning Goals	<ul> <li>Number ELG</li> <li>Have a deep understanding of numbers to 10, including the composition of each number.</li> <li>Recall fluently number bonds up to 5 and some number bonds to 10.</li> <li>Recognise quantities without counting up to 5.</li> </ul>			
	<ul> <li>Numerical Patterns ELG</li> <li>Children at the expected level of development will: <ul> <li>Count reliably beyond 20, recognising the pattern of the counting system.</li> <li>Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</li> </ul></li></ul>			
	• Explore patterns within numbers to To, including doubling, haiving and sharing.			
Take away, distance between, differen more? How much greater? How ma	Basic mathematical vocabulary ce between, less than, subtract, minus, leave, one less, two less, ten less, halve, half. How many ny fewer? How much more is? How many are left? How many have gone? How many fewer isthan? How much less is? Instructional vocabulary Start from, start with, start at, look at point, show me			
Read, write and interpret Represe Se Solve one-step problems that involve su	National curriculum link         mathematical statements involving addition (+), subtraction (-) and equals (=) signs.         Objectives:         ent and use number bonds and related subtraction facts within 20.         ubtract one-digit and two-digit numbers to 20, including zero.         btraction, using concrete objects and pictorial representations, and missing number problems such			
as 7 = 🛄 - 9				







Happy, suce













Pattern spotting					
$\mathbf{O}$	2 . 9 - 10				
$\bigcirc \bigcirc $	2 + 0 = 10				
$\bigcirc \bigcirc $	10 – 8 = ?				
		Year 2			
		Basic mathematical vocabulary			
subtract, subtraction, take (away), minus leave, how many are left/left over? one less, two less ten less one hundred less how many fewer is than? how much less is? difference between half, halve = equals, sign, is the same as, tens boundary difference, partition, rearrange, inverse, place value					
		Instructional vocabulary			
tell me, describe, name, pick out, discuss, talk about, explain, explain your method, explain how you got your answer, give an example of					
		National curriculum link:			
To solve subtraction problems using their knowledge of mental and written methods.					
Objectives:					
<ul> <li>Solve subtraction problems using concrete objects and pictorial representations, including those involving numbers, quantities and measures.</li> </ul>					
<ul> <li>Recall and use subtraction facts to 20 fluently.</li> </ul>					
Subtract numbers, including: a two-digit number and ones, a two-digit number and tens and two two-digit numbers.					
<ul> <li>Snow that subtraction is not commutative.</li> <li>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</li> </ul>					

















### National curriculum link:

Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.

#### **Objectives:**

- Estimate the answer to a calculation and use inverse operations to check answers.
- Subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens and a three-digit number and hundreds.
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Concrete	Pictorial	Abstract
Image: Second system     Image: Second system     Calculations       Image: Second system     Image: Second system     234     Make       -     -     88     the       larger     Image: Second system     Image: Second system     Image: Second system	Subtract mentally pairs of multiples of 100 using known facts 600 - 200 = 400 because $6 - 2 = 4$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
number with the place value counters Start with the ones, can I take away 8 from 4 easily? I need to exchange one of my tens for ten ones.	Remodellingstrategy(keepingthedifference the same) $502 - 198$ $504 - 200 = 304$	Start with least significant digit – column method 81 = 80 1 - <u>57</u> <u>50 7</u> 
Image: Second state sta	Draw the dienes or place value counters alongside the written calculation to help to show working.	81 = 81 70 11 $-\frac{57}{24}$ $\frac{50}{20}$ $\frac{7}{4}$ "1 subtract 7 is tricky so I will rearrange 81 into 70 and 11. 11 subtract 7 equals 4 and 70 subtract 50 equals 20. 20 and 4 make 24."







50 4 836-254=582 80 6 6 200 130 200 50 4 80 2 500 600 140 14 5 8 2 80 6 668 600 60 8

"It's tricky to take 6 from 4 and 80 from 50. I need to rearrange the number. I will exchange one ten from 50 which leaves 40 and makes 14 in the ones. 40 to subtract 80 is tricky. I will exchange one hundred from 700 and make 140. 14 subtract 6 equals 8. 140 subtract 80 equals 60 and 600 subtract 0 equals 600."

An example of the children's written method

2	3	8	-	١	4	6	=	9	2
.1	0	0							
Z	0	Q	+'	3	0	+	8		
١	0	0	+	4	0	+	6		
		0	†	9	0	٠	2		

#### **Columnar subtraction**

Emphasis on language of place value, i.e. 14 ones subtract 6 ones, 14 tens subtract 8 tens, and 6 hundreds subtract 2 hundreds.



		Representing problems			
		There are 386 pupils at Oak Primary. If 79 pupils have sandwiches, how many have dinners?			
		386 ? 79			
	Year 4				
	Basic mathematical vocabulary				
subtract, subtraction, take (away), minus, de more/fewer is than? how much more/le	crease, leave, how many are left/left over? differencess is? equals, sign, is the same as, tens bour exchange, carried digits Instructional vocabualry	ence between, half, halve, how many ndary, hundreds boundary, inverse,			
calculate	, work out, solve, investigate, question, answer,	check			
	National curriculum link:				
Add and subtract numbers with up to 4 digitd using the formal written methods of columnar addition and subtraction.					
	Objectives:				
<ul> <li>Estimate</li> <li>Solve addition and subtraction tv</li> </ul>	and use inverse operations to check answers to o-step problems in contexts, deciding which ope	a calculation. erations and methods to use and why.			





Concrete	Pictorial Abstract			
Concrete         Use cards to understand the decimal system.         (258)(1)(4)(7)(7)(7)(7)(7)(7)(7)(7)(7)(7)(7)(7)(7)	Pictorial         Bar modelling $3682 - 1245 =$ 3682         1245         2456 - 734 = 1822         2456         1822         734	Abstract         Column partioning: $2 7 5 4 - 1 5 6 2 = 1 1 9 2$ $2 0 0 0 + 7 0 0 + 5 0 + 4$ $1 0 0 0 + 5 0 0 + 2$ Columnar subtraction         2344 - 187 $2344$ $-187$		
yet understand the exchange concept.	Subtract mentally pairs of multiples of 1000 using known facts 6000 - 2000 = 4000 because 6 - 2 = 4 Remodelling strategy (keeping the difference the same) 3548 - 1998 3550 - 2000 = 1550 Adding 2 to each side of the equation Find the difference strategy 13.6 - 2.8 =	2157 6467 – 2684 5 13 1 Ø#67 - 2684 3783 Columnar subtraction (decimals) in contexts such as money and measurement		











Year 5
Basic mathematical vocabulary
subtract, subtraction, take (away), minus, leave, how many are left/left over? ten less one hundred less how many fewer is than? how much less is? difference between half, halve = equals, sign, is the same as tens boundary, hundreds boundary, inverse, units boundary, tenths boundary, exchange, carried digits.
Instructional vocabulary
put, place, arrange, rearrange change, change over, adjusting, adjust, split, separate
National curriculum link:
Add and subtract whole numbers with more than digits, including using formal written methods (columnar addition and subtraction)
Objectives:
<ul> <li>Subtract whole numbers with more than 4 digits.</li> </ul>
<ul> <li>Subtract numbers mentally with increasingly large numbers.</li> </ul>
<ul> <li>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li> </ul>
<ul> <li>Solve multi-step subtraction problems in contexts, deciding which operations and methods to use.</li> </ul>
Columnar subtraction
5 Z 8 A 4 1 1 8 7
51157











#### Year 6 Basic mathematical vocabulary

subtract, subtraction, take (away), minus, decrease leave, how many are left/left over? difference between half, halve how many more/fewer is... than...? how much more/less is...? equals, sign, is the same as tens boundary, hundreds boundary, units boundary, tenths boundary, inverse

# Instructional vocabulary

put, place arrange, rearrange change, change over adjusting, adjust split, separate, carry on, continue, repeat, what comes next? Predict, describe the pattern, describe the rule, find, find all, find different, investigate

# National curriculum link:

Solve a range of problems involving subtraction.

## **Objectives:**

- Perform mental calculations, including mixed operations and large numbers
- Use their knowledge of the order of operations to carry out calculations involving the four operations
  - Solve multi-step subtraction problems in contexts.

Columnar subtraction

Include calculations with up to 3 'empty columns'.





