



Holy Trinity C.E. (C) Primary School

## Subtraction

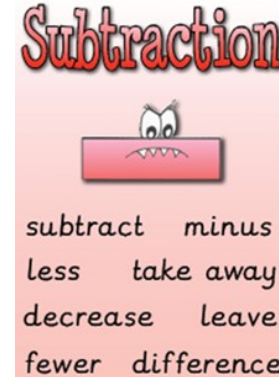
How is your child taught to subtract?



## Introduction

Most children learn addition quite readily; however, many of them easily get lost trying to learn subtraction.

There are lots of different words that we can use for subtraction.



It is not often that we use this vocabulary. We do not ask if children want less, as often as we ask if they want more and so we need to be careful to model the language.

Children need to understand that subtraction is the opposite of addition. It means counting back or counting down on the number line or grid. Children enjoy counting down for a rocket launch and some songs, stories and rhymes can help too.

We can view subtraction in two ways: subtraction as take away or as difference. Sometimes children will model a subtraction calculation such as by placing 15 objects in a box and taking out 6 and then counting how many remain. This is a take-away. Sometimes children will want to find out how many more. For example if you have 6p and the toy costs 10p, How many more pennies are needed? This uses the difference between 6 and 10.

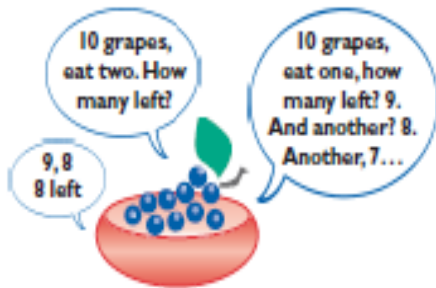
## Foundation Stage



Counting is at the heart of calculating and in the Foundation Stage children will be counting objects and counting backwards

in songs and rhymes. They will use language such as 'less' which introduces them to ideas of subtraction.

They will be asked to find one less than a given number to ten and they will also compare different groups of objects to find out how many more or less there are in each group.



Ten take away four is ?



There were 6 children on the bus. Four got off at the next stop. How many are left?

How many more forks do we need?

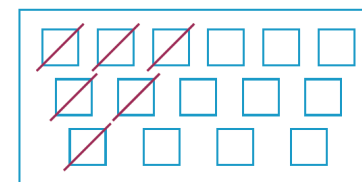


## Year 1

In Year 1 children start to carry out subtraction by finding the difference between two numbers through 'counting up'. This also shows them how addition and subtraction are inverse or opposite operations. We will support them in using the vocabulary related to subtraction and work towards recording their subtraction calculations using number sentences which include the symbols to record their practical activities.

E.g.  $10 - 3 = 7$

$$20 - 5 = 15$$



$$15 - 6 = \square$$

$$10 - 4 = ?$$



$$5 - \square = 3$$



$$\square - 2 = 3$$



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Year 2

During Year 2 children will learn to subtract one-digit numbers or multiples of 10 from two-digit numbers and could use practical or informal methods to subtract two digit numbers.

$$15 - 2 = \square$$

I had fifteen balloons. Two burst. How many did I have left?



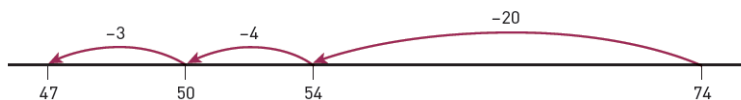
$$86 - 20 = \square$$

There were eighty-six children in school. Twenty children were having school dinners. How many were having sandwiches?



55	56	57	
			- 10
75	76	77	
			- 10
85	86	87	
95	96	97	

$$74 - 27 =$$



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Year 3



By the end of Year 3 children will be expected to subtract mentally one- and two-digit numbers as well as use a range of written methods to record and explain subtraction of two- and three-digit numbers. Children may set out their subtraction number sentences in columns to aid their understanding of place value.



Mental maths

Subtract thirty-two from seventy. What is twenty-seven subtract nine?

Can you do 15—8 in your head? How does this help you



There are fifty-two children on the bus. 19 get off. How many are left on the bus?

Lewis makes a call from a phone box. He has £2 in coins.



He uses these five coins to make the call. How much does he have left?

81 = 80 1 "1 take away 7 is tricky so carry over a ten"

$$\begin{array}{r} 81 \\ - 57 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \quad 11 \\ - 50 \quad 7 \\ \hline 20 \quad 4 = 24 \end{array}$$

## Year 4

Children in Year 4 will be subtracting mentally pairs of two-digit whole numbers and using written methods to subtract numbers up to four digits. They will need to explain the methods that they have used and why.

Children will be expected to apply their understanding of subtraction in the context of money, measures and other real life problems.



I pay three pounds and sixty pence for a rail ticket. How much change should I get from a five pound note?

$$734 - 252 =$$

• difference

$$\begin{array}{ccccccc} & +8 & +40 & +434 & & & = 482 \\ \hline 252 & 260 & 300 & & 734 & & \end{array}$$

• take away

	000	100						
734	700	30	4	adjust from H to T	734			
- 252	-200	50	2		- 252			
	400	80	2	= 482	482			

then 8.75	= £8	.	75	5	adjust T to U	£8.75
- 4.38	- 4	.	30	8		- 4.38
	£4	.	30	7	= £4.37	£4.37

What is one thousand minus one hundred and ten?

## Year 5

By this stage children will have developed their skills so they can use efficient written methods to subtract whole numbers and decimals up to 2 decimal places.

Set subtractions out vertically:

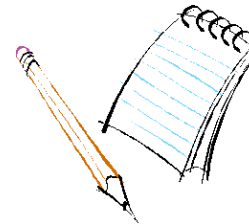
$$653 - 289:$$

$600 + 50 + 3$	$500 + 140 + 13$
$- 200 + 80 + 9$	$- 200 + 80 + 9$
<hr/>	<hr/>
$300 + 60 + 4$	$300 + 60 + 4$

In moving from one calculation to the other I have partitioned

$$\begin{aligned} 600 &= 500 + 100 \\ 50 &= 40 + 10 \\ 3 &= 3 \end{aligned}$$

So 653 can be written as  $500 + 140 + 13$ .



$$\square - 256 = 424$$

$$7.6 - 5.8 = \square$$

What is the difference between 155 and 290?

**Year 6**

By the end of primary school, children will be calculating mentally when appropriate and will be able to use a range of written methods for those calculations which cannot be carried out mentally. They will solve multi-step problems in context and decide which method to use. Children will use an estimation to help, especially when working with larger numbers.

$$734 - 252 =$$

• difference

+8 +40 +434 = 482

252 260 300 734 →

• take away

734	<sup>000</sup> 790	<sup>130</sup> 30	4	adjust from H to T	<sup>0</sup> 734
- 252	- 200	50	2		- 252
	400	80	2	= 482	482

→

then 8.75 = £8 . <sup>00</sup>75 adjust T to U      £8 . <sup>0</sup>75

- 4.38	- 4 . 30	8			- 4.38
	£4 . 30	7		= £4.37	£4.37

→

They will subtract negative numbers in context and subtract numbers that do not have the same number of decimal places.



The temperature was 3 degrees Celsius. It goes down by eight degrees. Write the new temperature.

**Calculate  $8.6 - 3.75$**

**Aims****Foundation**

By the end of the Foundation Stage most children should recognise situations which require subtraction.

**Year 1**

By the end of Y1 all children should understand the operation of subtraction as counting back and record using the - sign, and should be able to subtract one-digit numbers or multiples of 10 to one-digit or two-digit numbers. They may use informal written methods to support them in these calculations.

**Year 2**

By the end of Y2 all children should use mental recall of subtraction facts to ten. They should use the appropriate operation when solving subtraction problems. Subtract mentally a one digit number or multiple of 10 to any two-digit number and use informal written methods to subtract two 2-digit numbers. They should use the knowledge that subtraction is the inverse of addition. They should use subtraction to solve problems involving money or measures.

**Year 3**

By the end of Y3 all children should be able to subtract two 2-digit numbers, some children should be able to subtract 2 and 3-digit numbers showing method used.

**Year 4**

By the end of Year 4 most children should be able to use the extended method to subtract two 3-digit numbers or several numbers.

**Year 5**

By the end of Year 5: Most children are able to use the extended method, when appropriate, (numbers up to 10,000 and decimals).

**Year 6**

By the end of Year 6 Children should be able to use the compact, carrying, method, accurately and reliably – when appropriate.