

Subtraction

Reception

Early Learning Goals

Using quantities and objects, subtract two single-digit numbers.

Strategy

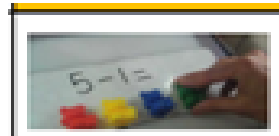
'Taking away' - removing objects/crossing out

Counting back (number lines)

Number shapes (numicon)

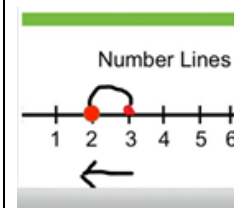
Examples/representations

Concrete



$$7 - 3 = 4$$

Pictorial



Abstract

$5-1=4$
"One less than 5 is 4"

$3-1=2$

$7-3=4$

Year 1

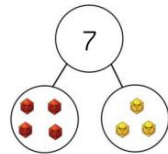
National Curriculum Objectives

Subtract 1 digit and 2 digit numbers up to 20, including 0.

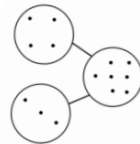
Strategy

Examples/representations

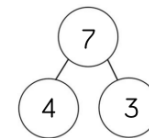
Part-part whole



Pictorial



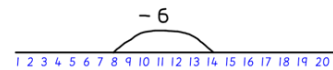
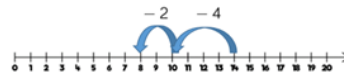
Abstract



$$7 - 3 = 4$$

$$7 - 4 = 3$$

Counting back (number lines)



$$14 - 6 = 8$$

Number Shapes (Numicon)



$$7 - 3 = 4$$



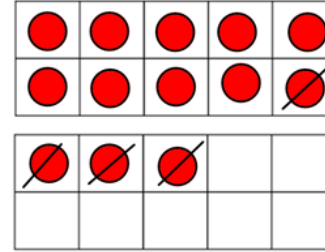
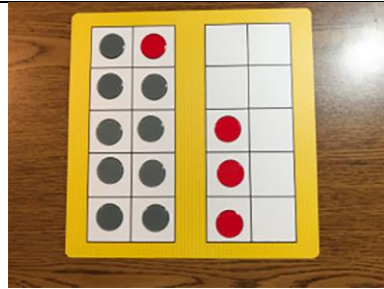
$$7 - 3 = 4$$

'Taking away' - removing objects/crossing out

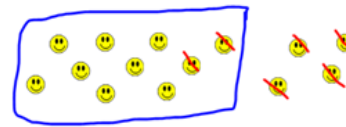
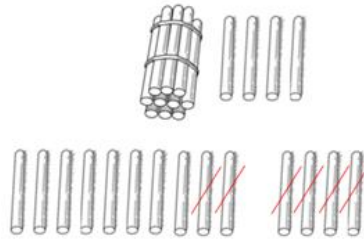


$$7 - 3 = 4$$

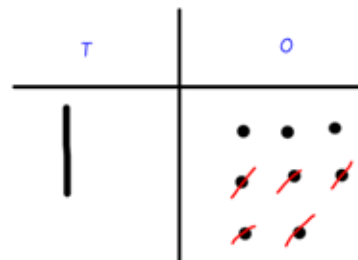
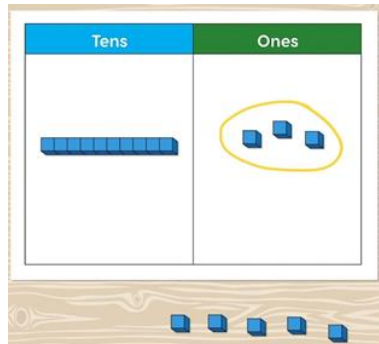
Tens frames



Grouping by 10



Base 10



$$13 - 4 = 9$$

$$14 - 6 = 8$$

$$18 - 5 = 13$$

National Curriculum Objectives

- Subtract 2 digit numbers and ones.
- Subtract 2 digit number and tens.
- Subtract two 2 digit numbers.
- Subtract three 1 digit numbers.

Strategy

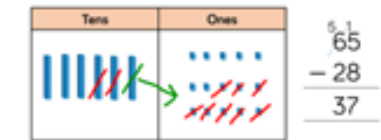
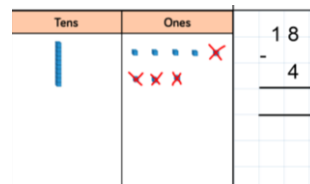
Counting backwards (number line)

Column method (base ten)

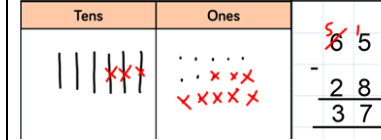
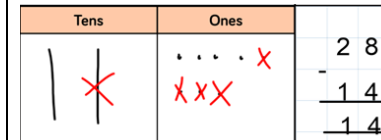
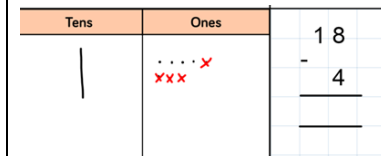
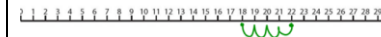
Column method with exchanging (base ten)

Examples/representations

Concrete

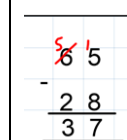
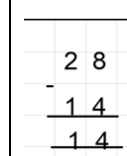
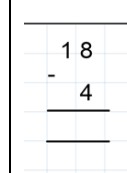


Pictorial



Abstract

18-4 = 14



Year 3

National Curriculum Objectives

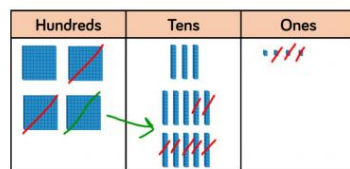
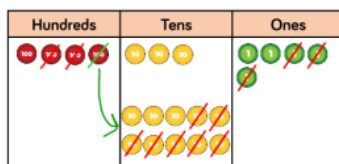
Subtract numbers with up to 3 digits using the formal written method of column subtraction.

Strategy

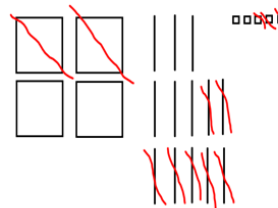
Column subtraction - formal written method (place value counters and base ten)

Examples/representations

Concrete



Pictorial



Abstract

$$\begin{array}{r} 31 \\ 435 \\ - 273 \\ \hline 262 \end{array}$$

Year 4

National Curriculum Objectives

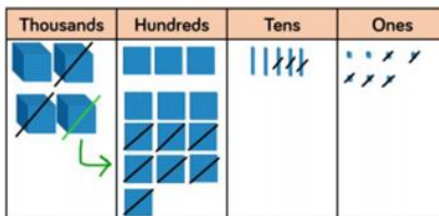
Subtract numbers with up to 4 digits using the formal written method of column subtraction.

Strategy

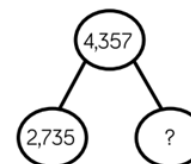
Column subtraction - formal written method (place value counters and base ten)

Examples/representations

Concrete



Pictorial



Abstract

$$\begin{array}{r} 31 \\ 4357 \\ - 2735 \\ \hline 1622 \end{array}$$

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Thousands</th> <th style="width: 25%;">Hundreds</th> <th style="width: 25%;">Tens</th> <th style="width: 25%;">Ones</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </tbody> </table>	Thousands	Hundreds	Tens	Ones					$ \begin{array}{r} 4,357 \\ \boxed{2,735} \quad \boxed{?} \\ \hline 4,357 \\ \hline \boxed{2,735} \quad \boxed{?} \end{array} $	
Thousands	Hundreds	Tens	Ones							

Year 5

National Curriculum Objectives
 Subtract whole numbers with more than 4 digits, using the formal written method of column subtraction.

<p>Strategy</p> <p>Column subtraction - formal written method</p>	<p>Examples/representations</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>Concrete</p> <p>Place Value Grid</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>TTh</th> <th>Th</th> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> </tbody> </table> </div> <div style="width: 48%;"> <p>Pictorial</p> <p>Place Value Grid</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>TTh</th> <th>Th</th> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">○</td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;">○</td> <td style="text-align: center;">○ ○</td> <td style="text-align: center;">○ ○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○ ○</td> </tr> <tr> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○ ○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○ ○</td> </tr> </tbody> </table> </div> </div> <div style="width: 48%; margin-top: 20px;"> <p>Abstract</p> $\begin{array}{r} 5 \\ \cancel{18} \cancel{1} \cancel{2} \cancel{1} \\ + 14212 \\ \hline 1818 \end{array}$ </div>	TTh	Th	H	T	O																TTh	Th	H	T	O	○					○	○ ○	○ ○	○	○ ○	○	○	○ ○	○	○ ○
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Year 6

National Curriculum Objectives

Subtract whole numbers with more than 4 digits, using the formal written method of column subtraction.

Strategy

Column subtraction - formal written method

Examples/representations

Concrete

Pictorial

Abstract

$$\begin{array}{r}
 \overset{0}{\cancel{7}} \overset{10}{\cancel{8}} \overset{9}{\cancel{0}}, 699 \\
 - \quad 89,949 \\
 \hline
 60,750
 \end{array}$$

$$\begin{array}{r}
 \overset{1}{\cancel{7}} \overset{10}{\cancel{0}} 5 \cdot \overset{3}{\cancel{4}} 19 \text{ kg} \\
 - \quad 36 \cdot 08 \text{ kg} \\
 \hline
 69 \cdot 339 \text{ kg}
 \end{array}$$