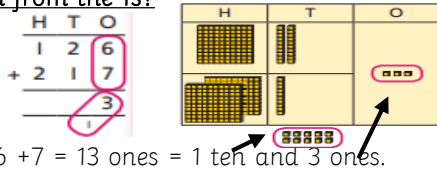


Key concepts and questions

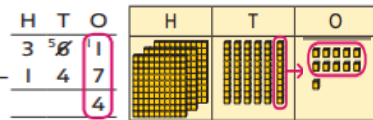
Why do you need to add from the 1s?

Always add from the 1s first because you may need to carry by exchanging 10 ones for 1 ten.



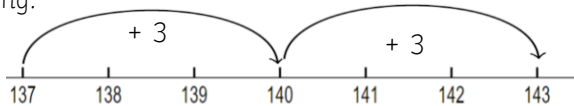
Why do you need to subtract from the 1s?

When subtracting make sure the whole is on top and the part underneath. Subtract from the ones first because you may need to borrow by exchanging 1 ten for 10 ones.



What is bridging?

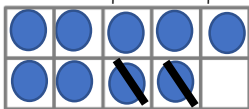
Bridging is adding or subtracting across a multiple of 10 or 100, e.g. $137+6$. $7+6$ is > 10 so it will bridge the next multiple of 10. Using known number facts to 10, help to identify if there will be bridging.



Making connections

Addition and subtraction facts to 100

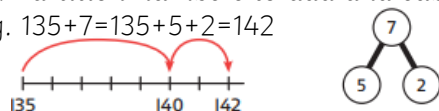
Use addition and subtraction facts you know to 10 and 100 to help solve problems up to 1000.



This shows $9 - 7 = 2$
 $90 - 70 = 20$
 $900 - 700 = 200$

Number lines and mental methods

Numberlines help to develop mental methods for addition and subtraction. Partition numbers to add and subtract known facts. E.g. $135+7=135+5+2=142$



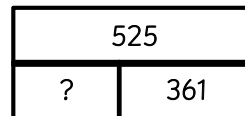
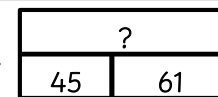
Key Vocabulary

hundreds	tens	ones	zero
place value	addition	subtraction	partition
exchange	Exchange in addition e.g. 10 ones for 1 ten. This is sometimes called carrying. Exchange in subtraction e.g. 1 ten for 10 ones. This is sometimes called borrowing.		
mental method	Calculate in your head		
commutative	Addition can be done in any order $22+5=27$ and $5+22=27$		
column method	Use place value to + and -		
fact families	A group of related maths facts.		
difference	Finding a part		
total	Finding the whole		

Representations

Bar model

In addition, parts are added to find the whole.



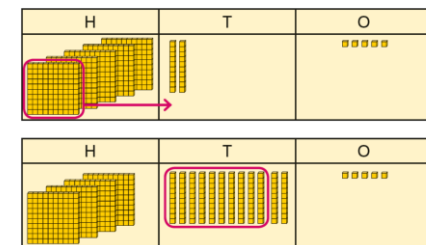
In subtraction, the part is taken away from the whole.

Column method

Pupils use knowledge of place value to add and subtract in columns, using borrowing and carrying where necessary.



$$\begin{array}{r} \text{H T O} \\ 45 \\ + 61 \\ \hline 106 \end{array}$$



$$\begin{array}{r} \text{H T O} \\ 45 \\ - 361 \\ \hline \end{array}$$