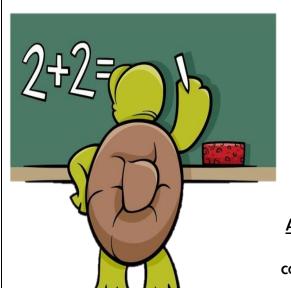


ADDITION and SUBTRACTION

KNOWLEDGE ORGANISER



Overview

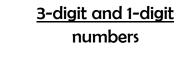


In addition and subtraction, we learn to:

- -Add and subtract multiples of 100.
- -Add and subtract 3-digit and 1-digit numbers.
- -Subtract a 1-digit number from a 3-digit number.
- -Add and subtract 3-digit and 2-digit numbers.
- -Add and subtract 100s -Spotting patterns.

Addition and Subtraction is useful learning because it is used in many areas of everyday life – e.g. shopping, cooking, or playing games. It also forms the basis for lots of other maths ideas.

Addition Methods



Not crossing 10



Crossing 10

352 + 6 = 358

224 + 8 = 232

Crossing ic	<u>4</u>	
	232	
200	30	2
200	20	12
HUNDREDS	TENS	ONES

3-digit and 2-digit numbers

Adding Tens

Hundreds	Tens	Ones
@ <u>@</u>	0 0	000

356 + 30 = 386 (5 tens plus 3 tens)

When <u>crossing 10</u>, we can use column addition or count in 10s mentally.

Crossing 10/100

Use exchanging for answers larger than 10. Remember to include this in the next calculation.

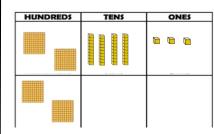
3-digit numbers



When exchanging/ crossing 10/100, we can use column addition, as shown below left, but with 3-digit plus 3-digit numbers).

Adding 100

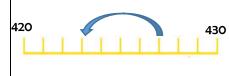
243 + 200 = 443



Subtraction Methods

3-digit and 1-digit numbers

Not crossing 10



427 - 4 = 423

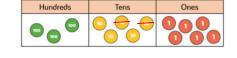
Crossing 10



221 - 8 = 213

3-digit and 2-digit numbers

Subtracting Tens



356 - 20 = 336 (5 tens minus 2 tens)

When <u>crossing 10</u>, we can use column addition or count in 10s mentally.

Crossing 10/100



Use exchanging for answers below zero. Remember to subtract the exchanged value from the next column.

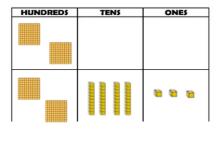
3-digit numbers

Not Exchanging



When exchanging/ crossing 10/100, we can use column subtraction, as shown below left, but with 3-digit minus 3-digit numbers).

Adding 100



443 - 200 = 2

Estimate

Being able to estimate using known facts helps us to check that answers are reasonable.

Estimating using near numbers

Estimate 221 - 78

Near number to 221 = 220

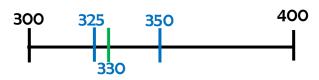
Near number to 78 = 80

220 - 80 = 140

Estimate = 140

Estimating marked numbers on a number line

Estimate the value of the green line



The student has added the blue lines to break down the hundred further, to give an estimate of 330.

Inverse

Key Vocabulary

Estimate Sum Add Subtract Altogether Difference Exchange Column Method Number Line Number Bond