

# Vocabulary

- Add
- Addition
- Plus
- Subtract
- Subtraction
- Minus
- Take away
- Altogether
- Difference

## New vocabulary

**Inverse** - An operation that undoes the previous operation (the opposite)

## Objectives

- Add 100s
- Subtract 100s
- 3-digit and 1-digit numbers (not crossing 10s and crossing 10s—exchanging)
- 3-digit and 2-digit numbers (crossing 10s—exchanging)
- 3-digit and 2-digit numbers (crossing 10 and 100)
- 3-digit numbers (not crossing and crossing)
- Estimate answers
- Check answers using the inverse

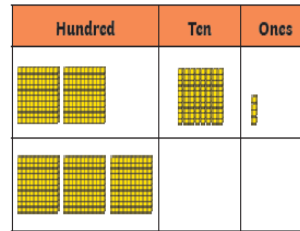
# Addition & Subtraction Year 3 Knowledge organiser

## Concrete resources

- Counters
- Base 10 blocks
- 100 Square

## Add and Subtract 100s

$$284 + 300 = 584$$



## Prior learning

Recall and use addition and subtraction facts to 20

Recall and use related facts up to 100

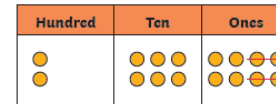
Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another can't

# Pictorial representation

## 3 digit and 1 digit numbers

Not crossing 10s

$$268 - 4 = 264$$



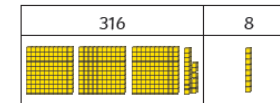
$$343 + 6 = 349$$



Crossing 10s (Exchanging)



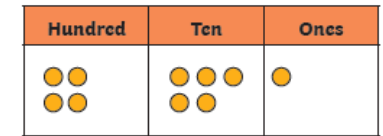
$$316 + 8 = 324$$



$$324 - 8 = 316$$

## 3-digit and 2-digit numbers

Add and subtract tens



$$451 + 3 \text{ tens} = 481 \quad (5 + 3 = 8)$$

$$451 - 4 \text{ tens} = 411 \quad (5 - 4 = 1)$$

## 3-digit numbers

Not crossing

$$679 - 351 = 328$$



# Abstract representation

## Crossing 10 and 100

$$\begin{array}{r} 368 \\ +73 \\ \hline 1 \end{array} \quad \begin{array}{r} 368 \\ +73 \\ \hline 41 \\ 1 \end{array} \quad \begin{array}{r} 368 \\ +73 \\ \hline 441 \\ 1 \end{array}$$

$$\begin{array}{r} 31 \\ 441 \\ -73 \\ \hline 8 \end{array} \quad \begin{array}{r} 3131 \\ 441 \\ -73 \\ \hline 68 \end{array} \quad \begin{array}{r} 3131 \\ 441 \\ -73 \\ \hline 368 \end{array}$$

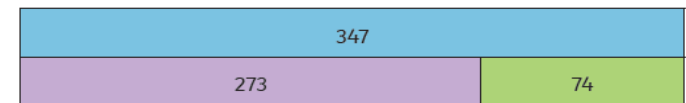
Remember! When subtracting using the column method: **More on the top, don't stop! More on the floor, go next door**

## Estimate (use near numbers)

Estimate  $167 - 89$

Use near numbers  $170 - 90 = 80$

## Check answers—inverse



$347 - 74 = 273$  can be checked using

$$273 + 74 = 347$$