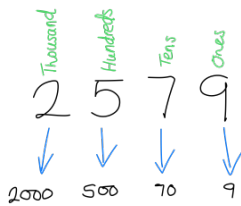


# Knowledge Organiser - Maths

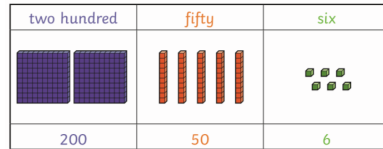
## Key Facts - Place Value

Place value is the value of each digit in a number. It means understanding that 582 is made up of 500, 80 and 2, rather than 5, 8 and 2.

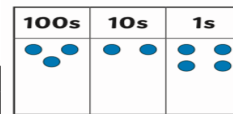
Thousands  
Hundreds  
Tens  
Ones



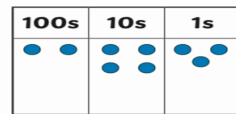
256



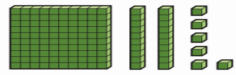
## Comparing and Ordering



324 > 243  
greater than



79 < 126  
less than



smallest

497

508

512

521

greatest

602

500

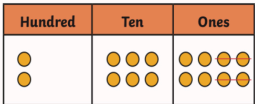
600

## Key Facts - Addition and Subtraction

### 3 digit and 1 digit numbers

Not crossing 10s

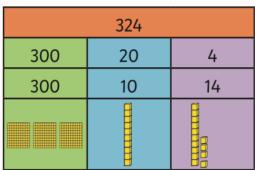
$$268 - 4 = 264$$



$$343 + 6 = 349$$



### Crossing 10s (Exchanging)



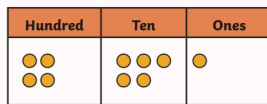
$$316 + 8 = 324$$



$$324 - 8 = 316$$

### 3-digit and 2-digit numbers

Add and subtract tens



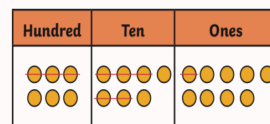
$$451 + 3 \text{ tens} = 481 \text{ (} 5 + 3 = 8 \text{)}$$

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

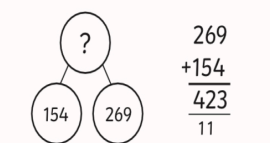
### 3-digit numbers

Not crossing

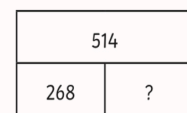
$$679 - 351 = 328$$



### Crossing 10s (Exchanging)



$$\begin{array}{r} 269 \\ +154 \\ \hline 423 \\ 11 \end{array}$$



$$\begin{array}{r} 4101 \\ 514 \\ -268 \\ \hline 246 \end{array}$$

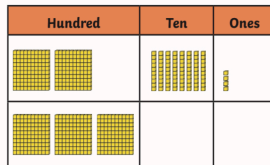
### Crossing 10 and 100

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

$$\begin{array}{r} 3131 \\ -73 \\ \hline 3058 \end{array}$$

### Add and Subtract 100s

$$284 + 300 = 584$$



## Estimate

Estimate by dividing the hundred into 250 and 225.  
Estimate 10s (330, 340) between 325 and 350.

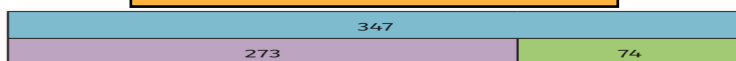


Estimate 167 - 89  
Use near numbers 170 - 90 = 80

Near numbers:



## Check Answers



$$347 - 74 = 273 \text{ can be checked using}$$

$$273 + 74 = 347$$

This part whole shows the inverse calculations using these three numbers.



$154 + 269 = 423$	$269 + 154 = 423$
$423 - 154 = 269$	$423 - 269 = 154$

## Counting

Counting in 6s



Counting in 7s



Counting in 9s



Counting in 25s



Counting in 1000s



## Key Vocabulary

addition	the act or process of adding one thing to another	
subtraction	the act or process of taking one number away from another number	
division	division is breaking a number up into equal parts	
place value	the value of each digit in a number	
compare	estimate, measures or note the similarities or differences between numbers	
partition	splitting numbers into smaller parts to make them easier to work with	
number pattern	a list of numbers that follow a certain pattern or sequence	