

# Year 3 Addition and Subtraction Knowledge

$+$ add	 total	$+$ plus	$\frac{2}{+3}$ sum
 more	 altogether	$\frac{1}{3} \frac{1}{10}$ difference	$-$ subtract
 less	$-$ minus	$3-1-2=$ take away	$3 \times 2 + 5 =$ calculation
 column addition	 column subtraction	 exchange	 estimate
$\begin{matrix} + & - \\ \times & \div \end{matrix}$ inverse operation	 solve problems	$3 \times 2 =$ number facts	HTU $\frac{3}{5}4$ place value

## addition

- add
- more
- plus
- make

- sum
- total
- altogether

How many more to make...?

How many more is... than...?

How much more is...?

## subtraction

- subtract
- minus
- leave
- less

- take away
- difference between

How many are left over?

How much less is... than...?

How many fewer is...?

## WRITTEN METHOD

**Key learning:** add two 3-digit numbers with exchange

### Column addition:

Starting from the right, add each column in turn. Carry digits to the next column if the total adds to more than 9.

$\begin{array}{r} \text{HTO} \\ 423 \\ + 248 \\ \hline \end{array}$ <p>Carry the one to the next column.</p>	$\begin{array}{r} \text{HTO} \\ 423 \\ + 248 \\ \hline 71 \end{array}$ <p>Include the 1 in your next addition.</p>
$\begin{array}{r} \text{HTO} \\ 423 \\ + 248 \\ \hline 671 \end{array}$	

## WRITTEN METHOD

**Key learning:** subtract two 3-digit numbers with exchange

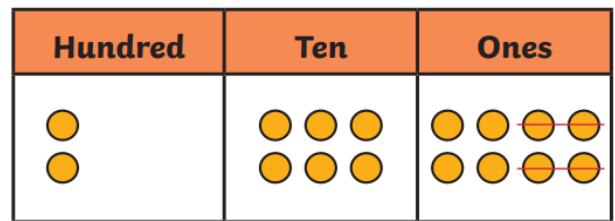
### Column subtraction:

Starting from the right, subtract each column in turn.

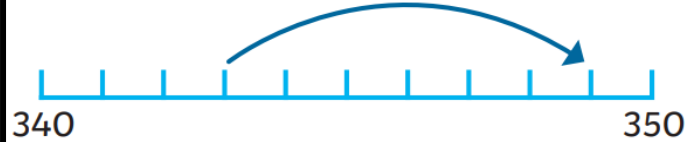
$\begin{array}{r} 4 \quad 1 \\ 653 \\ - 527 \\ \hline 6 \end{array}$	<p>3 subtract 7 would give us a negative number, so we re-group.</p>
$\begin{array}{r} 4 \quad 1 \\ 653 \\ - 527 \\ \hline 126 \end{array}$	<p>Exchange one lot of 10, so we now have 13 - 7.</p>

## Pictorial Methods

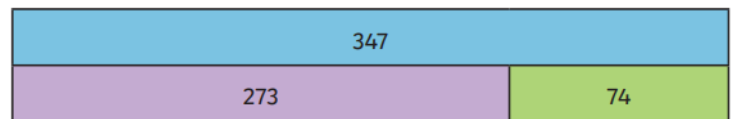
$$268 - 4 = 264$$



$$343 + 6 = 349$$



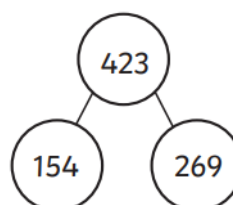
## Checking Strategies



$347 - 74 = 273$  can be checked using

$$273 + 74 = 347$$

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



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

We can estimate answers using **near numbers**.

E.g.  $167 - 89$   
 $170 - 90 = 80$

Near numbers:

