

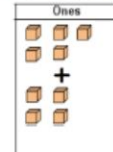
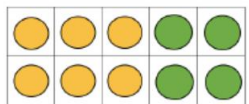
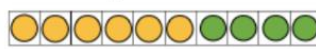
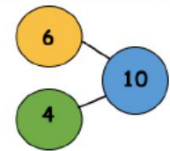

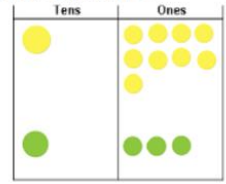
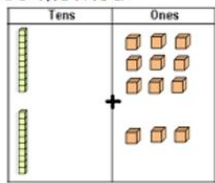
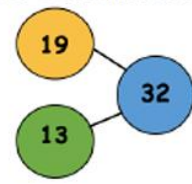
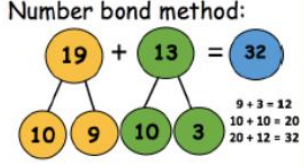

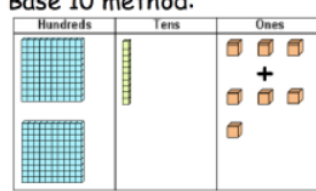
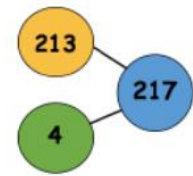
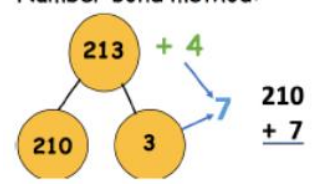

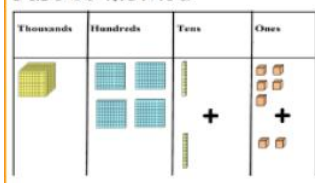

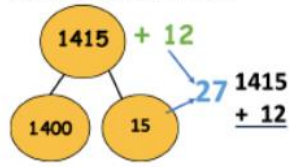
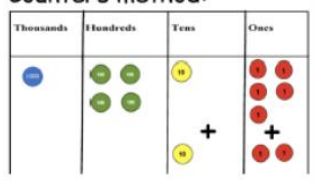
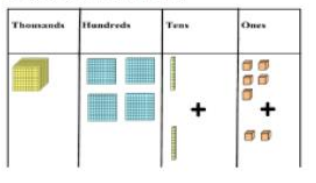

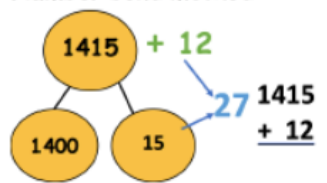
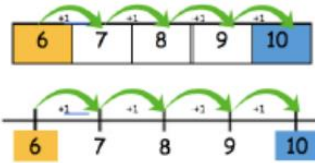


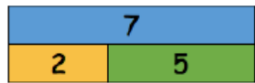
Calculation Policy: Addition

Year 1	Year 2	Year 3	Year 4	Year 5 / 6
<p>Picture method:</p>  <p>Counters method:</p>  <p>Base 10 method:</p>  <p>Tens frame:</p>  <p>Tens strip:</p>  <p>Count on from the biggest number: $6 + 4 = 10$</p> <p>Number bond method:</p>  <p>Number bond method:</p> 	<p>Counters method:</p>  <p>Base 10 method:</p>  <p>Number bond method:</p>  <p>Number bond method:</p> 	<p>Counters method:</p>  <p>Base 10 method:</p>  <p>Number bond method:</p>  <p>Number bond method:</p> 	<p>Counters method:</p>  <p>Base 10 method:</p>  <p>Number bond method:</p>  <p>Number bond method:</p> 	<p>Counters method:</p>  <p>Base 10 method:</p>  <p>Number bond method:</p>  <p>Number bond method:</p> 

Number line method:



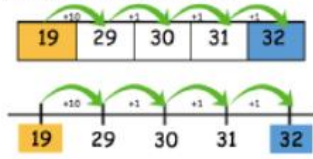
Bar model:



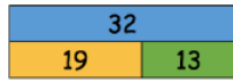
Abstract calculations:

Commutative	Inverse
$2 + 5 = 7$	$7 - 5 = 2$
$5 + 2 = 7$	$7 - 2 = 5$

Number line method:



Bar model:



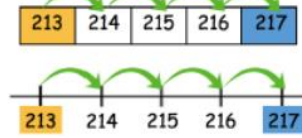
Column addition:

Without renaming:	With renaming:	Expanded method:
$\begin{array}{r} 18 \\ + 11 \\ \hline 29 \end{array}$	$\begin{array}{r} 19 \\ + 13 \\ \hline 32 \end{array}$	$\begin{array}{r} 19 \\ + 13 \\ \hline 20 \\ 12 \\ \hline 32 \end{array}$

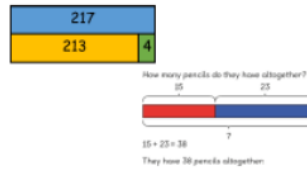
Abstract calculations:

Commutative	Inverse
$19 + 13 = 32$	$32 - 13 = 19$
$13 + 19 = 32$	$32 - 19 = 13$

Number line method:



Bar model:



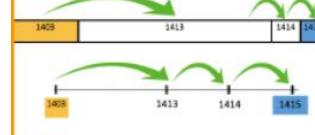
Column addition:

Without renaming:	With renaming:
$\begin{array}{r} 213 \\ + 4 \\ \hline 217 \end{array}$	$\begin{array}{r} 11 \\ 213 \\ + 497 \\ \hline 710 \end{array}$

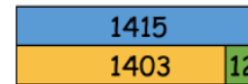
Abstract calculations:

Commutative	Inverse
$213 + 4 = 217$	$217 - 4 = 213$
$4 + 213 = 217$	$217 - 213 = 4$

Number line method:



Bar model:



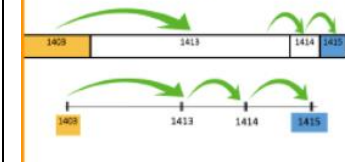
Column addition:

Without renaming:	With renaming:
$\begin{array}{r} 1415 \\ + 12 \\ \hline 1427 \end{array}$	$\begin{array}{r} 11 \\ 1415 \\ + 96 \\ \hline 1511 \end{array}$

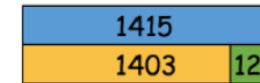
Abstract calculations:

Commutative	Inverse
$1415 + 12 = 1427$	$1427 - 12 = 1415$
$12 + 1415 = 1427$	$1427 - 1415 = 12$

Number line method:



Bar model:



Column addition:

Without renaming:	With renaming:
$\begin{array}{r} 1415 \\ + 12 \\ \hline 1427 \end{array}$	$\begin{array}{r} 11 \\ 1415 \\ + 96 \\ \hline 1511 \end{array}$

Inverse Calculations

Commutative	Inverse
$1415 + 12 = 1427$	$1427 - 12 = 1415$
$12 + 1415 = 1427$	$1427 - 1415 = 12$