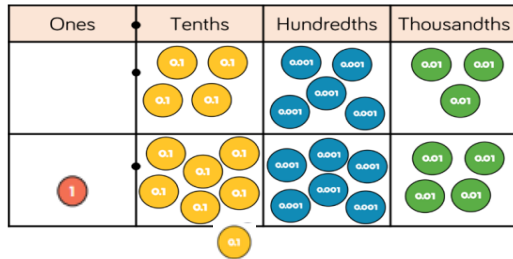


YEAR 5	Addition	
Vocabulary: sum, total, parts and whole, plus, add, altogether, more than; addend + addend = sum/total (see previous year groups)		
Concrete	Pictorial	Abstract
Add whole numbers with more than 4 digits. (Up to answers with 6 digits). 21 342 + 4 751 = 26 093 TTh Th H T O 10,000 10,000 1,000 1,000 1,000 100 100 10 10 10 10 10 10 1 1 1 1 1,000 1,000 1,000 1,000 100 100 10 10 10 10 10 10 10 10 1 1 1 1 100 +	Add whole numbers with more than 4 digits. 21 342 + 4 751 = 26 093 + 4000 + 700 + 51 21 342 25 342 26 042 26 093	Written Add whole numbers with more than 4 digits. Exchanging (building up from non exchanging then exchanging at diferent points) 21 342 + 4 751 = 26 093 TTh Th H T O 2 1 3 4 2 + 4 7 5 1 2 6 0 9 3 1

Adding decimals (up to 3 decimal places)
 $0.453 + 0.664 = 1.117$

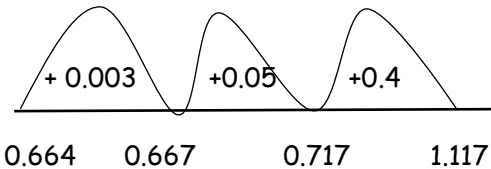


1 . 1 1 7

Start with no exchanging then build up by exchanging at different points.

Adding decimals (up to 3 decimal places)
 $0.453 + 0.664 = 1.117$

0.453	0.664



Adding decimals (up to 3 decimal places)
 $0.453 + 0.664 = 1.117$

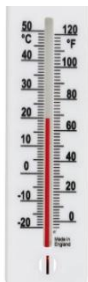
Exchanging

(building up from non exchanging then exchanging at diferent points)

$$\begin{array}{r}
 0.453 \\
 + 0.664 \\
 \hline
 1.117 \\
 \hline
 1.1
 \end{array}$$

Adding negative numbers

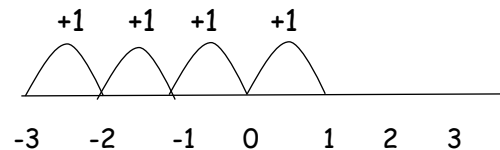
Using real life objects:



Adding negative numbers

Using a number line (the number line could be represented vertically too):

$$-3 + 4 = 1$$



Adding negative numbers

Develops into a mental method - no written method.

Mental Methods:

Counting on:

$$4.3 + 1.5$$

(partition 1.5 then +1 and + 0.5)

$$19.7 + 2.6$$

(+2, +0.3 to the next whole number then +0.3)

Redistribution:

$$0.66 + 0.23 \text{ redistribute to } 0.69 + 0.20$$

Adjusting:

$$2\,456 + 399 \text{ (add 400 and subtract 1)}$$

$$8.3 + 1.9 \text{ (add 2 and subtract 0.1)}$$

$$14.6 + 3.9 \text{ (add 4 and subtract 0.1)}$$

Using known facts and place value:

$$7.5 + 2.6$$

$$7.5 + 2.5 = 10 \text{ so } 7.5 + 2.6 = 10.1$$

$$0.06 + 0.08$$

$$\text{If } 6 + 2 = 8 \text{ then } 0.06 + 0.02 = 0.08$$

Derive and use addition facts to 1 (with decimals up to 2 decimal places).

Recall and use addition facts for 1 and 10 (with decimal numbers up to 1 place)

Recall pairs of 3 digit numbers with a total of 1000.

Partitioning:

Adding a power of 10

$$23\,453 + 10\,000 = 33\,453$$

$$45\,321 + 1\,000 = 46\,321$$

No exchanging

$$42\,345 + 21\,423 = 63\,768$$

Exchanging

$$3.6 + 1.7$$

$$3 + 1 = 4$$

$$0.6 + 0.7 = 1.3$$

$$4 + 1.3 = 5.3$$