

## Written calculation strategies for addition

### Step 1

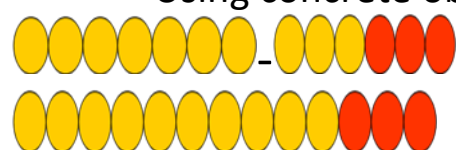
#### Statutory Guidance

Add one-digit and two-digit numbers to 20, including zero.  
Solve one-step problems that involve addition, using concrete objects and pictorial representations, and missing number problems.

#### Possible representations

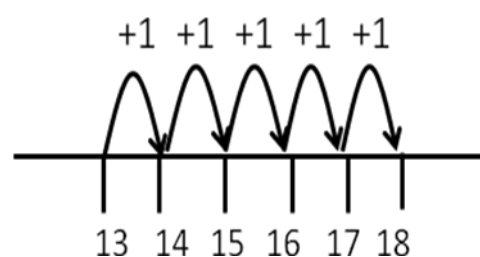
e.g.  $7 + 6 =$

Using concrete objects



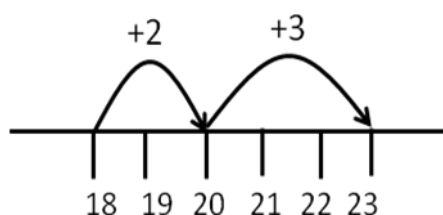
Using pictorial representations

e.g.  $13 + 5 =$



Addition

using more efficient jumps



### Step 2

#### Statutory Guidance

Solve problems with addition:

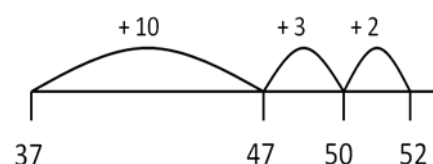
- using concrete objects and pictorial representations, including those involving numbers, quantities and measures
- applying their increasing knowledge of mental and written methods

Add numbers using concrete objects, pictorial representations, and mentally, including:

- a two-digit number and ones
- a two-digit number and tens
- two two-digit numbers
- adding three one-digit numbers

e.g.  $37 + 15 =$

2 digit number add a 2 digit number using efficient place value jumps



#### Non-statutory guidance

$34 + 23 =$

$$\begin{array}{r} 30 \quad 4 \quad 34 \\ + 20 \quad 3 \quad 23 \\ \hline 50 \quad 7 \quad = 57 \end{array}$$

### Step 3

#### Statutory Guidance

Add numbers with up to three digits, using formal written methods of columnar addition.

Solve problems, including missing number problems, using number facts, place value, and more complex addition.

e.g.  $376 + 57 = 433$   
(expanded addition)

$$\begin{array}{r} 300 \quad 70 \quad 6 \\ + \quad 50 \quad 7 \\ \hline 400 \quad 30 \quad 3 \\ 100 \quad 10 \end{array}$$

### Step 4

#### Statutory Guidance

Add numbers with up to 4 digits using the formal written methods of columnar addition where appropriate

e.g.  $6321 + 858 =$

$$\begin{array}{r} 6321 \\ + 858 \\ \hline 7179 \\ 1 \end{array}$$

#### Measurement

Based on statutory guidance linked to money and measures to 2 decimal places.

e.g.  $67.75 + 21.50 =$

$$\begin{array}{r} 67.75 \\ + 21.50 \\ \hline 89.25 \\ 1 \end{array}$$

### Step 5

#### Statutory Guidance

Add whole numbers with more than 4 digits, including using formal written methods (columnar addition)

e.g.  $12478 + 73649 =$

$$\begin{array}{r} 12478 \\ + 73649 \\ \hline 19847 \\ 1 \quad 1 \end{array}$$

#### Measurement

Based on statutory guidance linked to money and measures to 2 decimal places.

$$\begin{array}{r} 9.42 \\ + 6.78 \\ \hline 16.20 \\ 1 \quad 1 \end{array}$$