

## Maths - Year 4

### Calculating 2: Strategies for bridging when adding and subtracting

#### Key Vocabulary

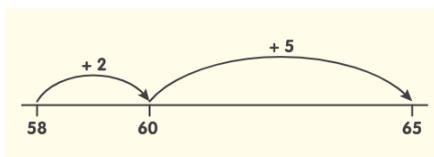
Estimate	Work out an answer or measurement that is nearly right, e.g. an estimate of $4 \times 9$ is nearly $4 \times 10 =$ nearly 40.
Bridging	Partitioning (splitting) the number to be added or subtracted to help with calculating, e.g. $8 + 9 = (8 + 2) + 7 = 17$ .
Partitioning	Splitting a number in different ways, usually to help with calculating, e.g. 27 can be partitioned into 2 tens (20) and 7 ones (7).
Multiple of 100	Numbers that can be divided exactly by 100, without leaving a remainder.

#### Mathematical Skills

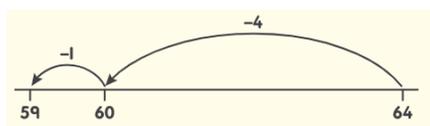
- Use an empty number line to show the steps taken in bridging a multiple of 10.
- Use recalled adding facts to partition numbers when calculating by bridging a multiple of 10.
- Use recalled subtraction facts to partition numbers when bridging a multiple of 10.
- Record a bridging problem and its solution as a balancing calculation.
- Recall pairs of numbers equalling 100 to partition numbers when bridging 100.

#### Mathematical Methods

- Bridging multiples of 10 when adding e.g.  $58 + 7 = 58 + 2 + 5$ .



- Bridging multiples of 10 when subtracting e.g.  $64 - 5 = 64 - 4 - 1$ .



- Bridging through multiples of 10 when adding 2-digit numbers e.g.  $37 + 26$ .

37      26

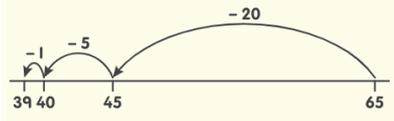
Move the 10-rods into one group.

57      6

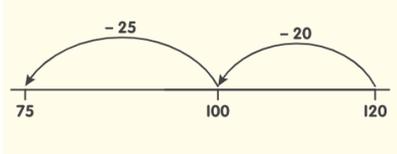
Break the 6-rod into two smaller rods to 'bridge' the gap from 57 to 60.

63

- Bridging through multiples of 10 when subtracting 2-digit numbers e.g.  $65 - 26 = 65 - 20 - 5 - 1$ .



- Bridging through 100 when adding e.g.  $80 + 44 = 100 + 24$ .
- Bridging through 100 when subtracting.



### Can you..?

- Bridge a multiple of 10 to solve  $48 + 16$ .
- If you start at 50 on a number line and keep taking away 7, at which points will you bridge a multiple of 10?
- Solve  $155 - 38$ , by bridging a multiple of 10.
- Solve a)  $160 + 56$  b)  $342 - 55$ .