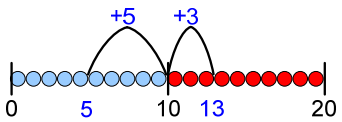
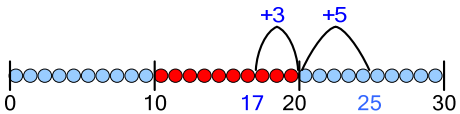
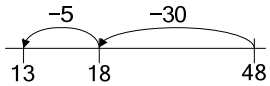
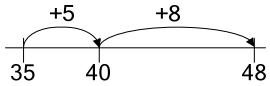
Finding a difference

Year 2 Spring 10

Understand difference as one model of subtraction

Previous learning	Core for Year 2	Extension
Understand these words: *subtraction, difference between, how many more/less, how much more/less equals, …*	Understand and begin to read these words: *subtraction, difference between, how many more, how many fewer, how much more/less, equals, …*	Understand and read these words: *subtraction, difference between, how many more, how many fewer, how much more/less, equals, …*
Begin to understand that subtraction can involve: • making a comparison to find **how many more** or **how many less**, or to **find a difference**, e.g. *Amy is 12 years old. John is 3 years old.* We can ask: *How much older is Amy than John?* *How much younger is John than Amy?* *What is the difference in their ages?* In each case, we have to write down and work out this subtraction calculation: 12 – 3 = 9 so the answer to each problem is 9 years.	Understand that subtraction can involve: • comparing two quantities to find **how many more** or **how much more**, or **how many less** or **how much less**, one quantity is than the other, or to **find the difference** between them, e.g. *A red ribbon is 40 cm long. A blue ribbon is 28 cm long.* We can ask: *How much longer is the red ribbon than the blue ribbon?* *How much shorter is the blue ribbon than the red ribbon?* *What is the difference between the lengths of the ribbons?* In each case, we have to write down and work out this subtraction calculation: 40 – 28 = 12 so the answer to each problem is 12 cm.	Understand that subtraction can involve: • **taking away**; • making a **comparison** by: – finding **how many more** or **how much more**; – finding **how many fewer** or **how much less**; – finding **a difference.** When solving word problems, write down the subtraction calculation resulting from a range of contexts.
Understand that once you have decided on the calculation to do it can be worked out by any method. Begin to understand that one way to do subtraction is to **count up** from the smaller to the larger number, bridging 10 or 20, e.g. 13 – 5  	Understand that once you have decided on the calculation to do it can be worked out by any efficient method. Understand that one way to do subtraction is to **count up** from the smaller to the larger number, bridging a multiple of 10, e.g. 25 – 17  	Understand that once you have decided on the calculation to do it can be worked out by the most efficient method. Understand that subtraction can be carried out either by **counting back** from the larger number in tens and ones, e.g. 48 – 35  or by **counting up** from the smaller to the larger number, bridging a multiple of 10, e.g. 48 – 35 

Examples adapted from the *Framework for teaching mathematics from Reception to Year 6*, 1999

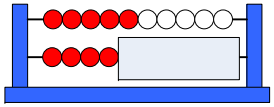
Subtract two-digit numbers lying either side of a multiple of 10 by counting up, using pairs to ten and place value , e.g. 22 – 17, 32 – 27

Previous learning

Subtract a teens number from 20 by counting up, using knowledge of number facts, e.g.

- 20 – 14

  Use a bead frame (two rows of 10 beads).



  Use knowledge of pairs to 10 to work out the missing number. Record the related number sentences, e.g.

  14 + 6 = 20, 20 – 14 = 6

  Repeat using a number line to 20, **counting up** from 14.

Use a number line to support, record or explain calculations like:

20 – 17 = ☐ 17 + ☐ = 20

Solve word problems such as:

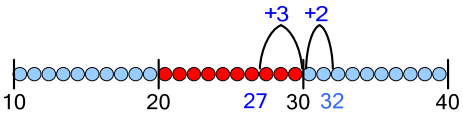
- In a game, Ram scores 20 points. Kim scores 13 points. What is the difference in their scores?
- Amy has 20p.
  She buys a balloon for 14p.
  How much change does she get?

Core for Year 2

Subtract two numbers lying either side of a multiple of 10 by counting up, using pairs to 10 and place value, e.g.

- 32 – 27

  Count up, using two steps, bridging through a multiple of 10.



  27 + 3 = 30 and 30 + 2 = 32

  So 32 – 27 = 3 + 2 =5

Use a number line to support, record or explain calculations like:

25 – 18 = ☐ 18 + ☐ = 25

Solve word problems such as:

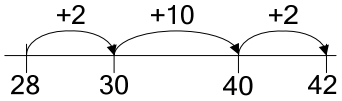
- Latika is 43 years old. Jamal is 37 years old.
  What is the difference in their ages?
- Mark is saving for some trainers that cost £32.
  He has already saved £25.
  How much more does he need to save?

Extension

Subtract any pair of two-digit numbers by counting up, e.g.

- 42 – 28

  Count up from 28 using three steps, bridging through multiples of 10.



  28 + 2 = 30 and 30 + 10 = 40 and 40 + 2 = 42

  So 42 – 28 = 2 + 10 + 2 = 14

Use a number line to support, record or explain calculations like:

64 – 48 = ☐ 48 + ☐ = 64

Solve word problems such as:

- Gran is 62 years old. Mum is 35 years old.
  How much older is Gran than Mum?
- Zoe has saved £75.
  Richard has saved £48.
  What is the difference between the amounts they have saved?

Examples adapted from the *Framework for teaching mathematics from Reception to Year 6*, 1999