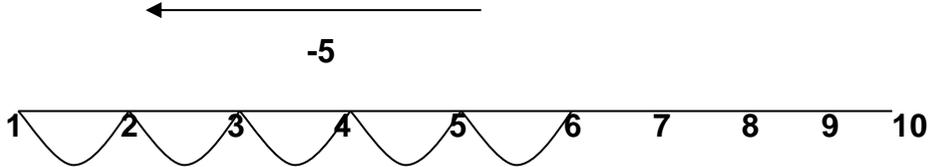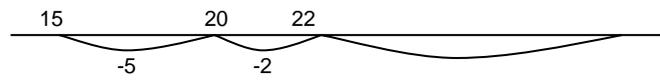# Big Maths
# Written Methods for Subtraction.

| Level 1 | Level 2 |
|---|---|
| **Activities**<br>Children should have access to a wide range of counting equipment, everyday objects, as well as hoops, sorting trays, number tracks and numbered number lines.<br><br>**Skill of subtraction**<br>Children will see a group of objects and know that we need to take some away and then we will have less left.<br><br>This will extend to the children counting out the objects there are to begin with and then counting out the objects to be taken away. They will then count how many are left. Check the right amount of objects were taken away.<br><br>**+ = signs and missing numbers**<br>Children will begin to understand how a number sentence is arranged.  Eg. 6 – 4 = 2<br><br>Missing numbers need to be placed in all possible places and used alongside Learn Its.<br><br>6 - 4 = ☐        ☐ = 6 - 4<br>6 - ☐ = 2        2 = ☐ - 4<br><br>**Children**<br>To use a variety of objects to understand subtraction s taking away. Eg. Fingers, pens, toys etc. Begin counting back from the largest number. Children will work on taking away numbers below 10. | **+ = signs and missing numbers**<br>Continue using a range of equations as in Year 1 but with appropriate, larger numbers.<br><br>**Arranging a number sentence**<br>Children will read the number sentence and arrange objects to carry out the taking away.<br>1. Read number sentence<br>2. Set out objects<br>3. Tell me how many we need to take away<br>4. Take the objects away<br>5. Count how many are left<br><br>**Using a number line**<br>Find the starting number and count back the right amount. See where we have landed.<br><br><br><br>**FAB Hundred Square**<br>Children will use a number square to jump along the squares until they land on the right answer. This is used for subtracting 1d numbers from 2d numbers. This will then be extended to jumping back in tens.<br><br>**Subtracting bridging through 10.**<br>Using a number line, children will count back to the nearest multiple of 10 and then continue. This will involve partitioning the number being taken away. They will use 2d – 1d numbers to begin with and then move onto 3d – 1d.<br><br>22 - 7<br><br> |

| Level 3 | Level 4 |
|---|---|
| **The idea of counting on for subtraction is introduced.** | When children are confident with using the counting on method for money, the context of money will be removed and they will work with decimal numbers. |
| The children will work on looking at 2 digit numbers and working out what the next multiple of 10 is. The will lead onto finding the difference between a 2 digit number and the next multiple of 10. A hundred square will be used and the children can draw on their knowledge of jigsaw numbers. | This will be extended to using larger numbers and larger gaps, As the children become more and more confident with jumping on, they will be encouraged to use only 2 jumps – they must look for the 2 most sensible jumps to use. |
| These differences will be written into number sentences:<br>Eg. The next multiple of 10 after 73 is 80. The difference between 73 and 80 = 7, so 80 – 7 = 73 | At this point, children will move onto using decomposition as the main calculation policy suggests in Year 5. |

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These differences will be written into number sentences:
Eg. The next multiple of 10 after 73 is 80. The difference between 73 and 80 = 7, so 80 – 7 = 73

This will lead to using a number line to jump forwards to the nearest multiple of 10 and then continuing to find the difference between 2 numbers.
Eg. 42 – 39 = 3

$+1$        $+2$

39        40                    42
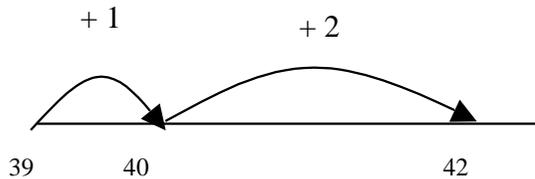
**Counting on is extended to drawing a number line to jumping in larger amounts.**
1. Draw the gap on a number line
2. Write in the next multiple of ten with a line to mark it
3. Jump to the nearest tens number
4. Jump from the multiple of ten to the target number

This is then extended to jumping in more steps to work with larger gaps eg. 46 – 17. Children will then add the jumps together to find the answer.

This counting on method is used to subtract 2d numbers from 100 and then any 3d – 2d number. Children must mark the nearest multiple of 100 with a line.

The same counting on method will be used to work with money. Children will draw out the gap on a number line.
£6.28 - £2.35

£2.35        £3.00                    £6.00        £6.28

1. Draw out the 2 gaps on a number line
2. Jump to the next 'round pound'.
3. Jump from the next 'round pound'.
4. Add the 2 jumps

When children are confident with using the counting on method for money, the context of money will be removed and they will work with decimal numbers.

This will be extended to using larger numbers and larger gaps, As the children become more and more confident with jumping on, they will be encouraged to use only 2 jumps – they must look for the 2 most sensible jumps to use.

At this point, children will move onto using decomposition as the main calculation policy suggests in Year 5.