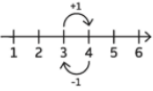

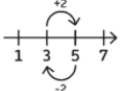
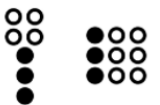
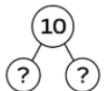
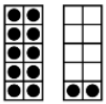

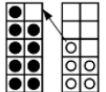

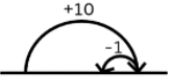




Number Facts Fluency Programme

The Number Facts Fluency Programme teaches a defined set of addition and subtraction facts and a defined set of calculation strategies. With this systematic and structured approach, we aim to ensure children develop key visual pathways and learn important number relationships. This leads to a deep understanding of number and number relationships, and to fluency in addition and subtraction facts.

Calculation Strategies

The core facts are taught alongside 12 calculation strategies. Learning and applying these strategies gives children a deep understanding of number and number relationships. Using these strategies children can then "use what they know to work out what they don't know". Explicit teaching of derived fact strategies is an effective route to fluency in addition and subtraction facts for all children, including lower attainers.

| | | | |
|--|---|---|---|
| <p>One More, One Less</p>  | <p>When we add one, we get the next counting number. When we subtract one, we get the previous counting number (e.g. $5 - 1 = 4$).</p> | <p>Number Neighbours: Spot the Difference</p>  | <p>Adjacent numbers have a difference of 1. Adjacent odds and evens have a difference of 2.</p> <p>Spot number neighbours (adjacent, odds or evens) to solve subtractions of adjacent numbers (e.g. $5 - 4 = 1$), of adjacent odds (e.g. $9 - 7 = 2$) or adjacent evens (e.g. $6 - 4 = 2$)</p> |
| <p>Two More, Two Less: Think Odds and Evens</p>  | <p>If we add two to a number, we go from odd to next odd or even to next even. If we subtract two from a number, we go from odd to previous odd or even to previous even.</p> | <p>7 Tree and 9 Square</p>  | <p>Use these visual images to remember addition and subtractions fact families that children can find tricky. For example, visualising the 7 tree helps remember that $7 - 3 = 4$. Visualising the 9 square helps remember that $3 + 6 = 9$.</p> |
| <p>Number 10 Fact Families</p>  | <p>Go beyond just recalling the pairs of numbers that add to 10. Make sure that we can also spot additions and subtractions which we can use number bonds to 10 to solve.</p> | <p>Ten and A Bit</p>  | <p>The numbers 11 – 20 are made up of 'Ten and a Bit'. Recognising and understanding the 'Ten and a Bit' structure of these numbers enables addition and subtraction facts involving their constituent parts (e.g. $3 + 10 = 13$, $17 - 7 = 10$, $12 - 10 = 2$).</p> |
| <p>Five and A Bit</p>  | <p>The numbers 6, 7, 8 and 9 are made up of 'five and a bit'. This can be shown on hands, and supports decomposition of these numbers into their five and a bit parts (e.g. $5 + 3 = 8$, $9 - 5 = 4$).</p> | <p>Make Ten and Then...</p>  | <p>Additions which cross the 10 boundary can be calculated by 'Making Ten' first, and then adding on the remaining amount (e.g. $8 + 6$ can be calculated by thinking '$8 + 2 = 10$ and 4 more makes 14'). The same strategy can be applied to subtractions through 10.</p> |
| <p>Know about 0</p>  | <p>When we add 0 to or subtract 0 from another number, the total remains the same. If we subtract a number from itself, the difference is 0.</p> | <p>Adjust It</p>  | <p>Any addition and subtraction can be calculated by adjusting from a fact you know already. (e.g. $6 + 9$ is one less than $6 + 10$).</p> |
| <p>Doubles and Near Doubles</p>  | <p>Memorise doubles of numbers to 10, using a visual approach. Then use these known double facts to calculate near doubles and hidden doubles. Once we know $6 + 6 = 12$ then $6 + 7$ and $5 + 7$ is easy.</p> | <p>Swap It</p>  | <p>When the order of two numbers being added (addends) is exchanged the total remains the same. E.g. $1 + 8 = 8 + 1$. Sometimes reversing the order of the two addends makes addition easier to think about conceptually.</p> |

We aim for children to be fluent in these 'Root Addition Facts'.

| + | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|------|------|------|------|------|------|------|------|------|------|-------|
| 0 | 0+0 | 0+1 | 0+2 | 0+3 | 0+4 | 0+5 | 0+6 | 0+7 | 0+8 | 0+9 | 0+10 |
| 1 | 1+0 | 1+1 | 1+2 | 1+3 | 1+4 | 1+5 | 1+6 | 1+7 | 1+8 | 1+9 | 1+10 |
| 2 | 2+0 | 2+1 | 2+2 | 2+3 | 2+4 | 2+5 | 2+6 | 2+7 | 2+8 | 2+9 | 2+10 |
| 3 | 3+0 | 3+1 | 3+2 | 3+3 | 3+4 | 3+5 | 3+6 | 3+7 | 3+8 | 3+9 | 3+10 |
| 4 | 4+0 | 4+1 | 4+2 | 4+3 | 4+4 | 4+5 | 4+6 | 4+7 | 4+8 | 4+9 | 4+10 |
| 5 | 5+0 | 5+1 | 5+2 | 5+3 | 5+4 | 5+5 | 5+6 | 5+7 | 5+8 | 5+9 | 5+10 |
| 6 | 6+0 | 6+1 | 6+2 | 6+3 | 6+4 | 6+5 | 6+6 | 6+7 | 6+8 | 6+9 | 6+10 |
| 7 | 7+0 | 7+1 | 7+2 | 7+3 | 7+4 | 7+5 | 7+6 | 7+7 | 7+8 | 7+9 | 7+10 |
| 8 | 8+0 | 8+1 | 8+2 | 8+3 | 8+4 | 8+5 | 8+6 | 8+7 | 8+8 | 8+9 | 8+10 |
| 9 | 9+0 | 9+1 | 9+2 | 9+3 | 9+4 | 9+5 | 9+6 | 9+7 | 9+8 | 9+9 | 9+10 |
| 10 | 10+0 | 10+1 | 10+2 | 10+3 | 10+4 | 10+5 | 10+6 | 10+7 | 10+8 | 10+9 | 10+10 |

We aim for children to be fluent in these 'Root Subtraction Facts'.

| - | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|------|------|------|------|------|------|------|------|------|------|-------|
| 0 | 0-0 | | | | | | | | | | |
| 1 | 1-0 | 1-1 | | | | | | | | | |
| 2 | 2-0 | 2-1 | 2-2 | | | | | | | | |
| 3 | 3-0 | 3-1 | 3-2 | 3-3 | | | | | | | |
| 4 | 4-0 | 4-1 | 4-2 | 4-3 | 4-4 | | | | | | |
| 5 | 5-0 | 5-1 | 5-2 | 5-3 | 5-4 | 5-5 | | | | | |
| 6 | 6-0 | 6-1 | 6-2 | 6-3 | 6-4 | 6-5 | 6-6 | | | | |
| 7 | 7-0 | 7-1 | 7-2 | 7-3 | 7-4 | 7-5 | 7-6 | 7-7 | | | |
| 8 | 8-0 | 8-1 | 8-2 | 8-3 | 8-4 | 8-5 | 8-6 | 8-7 | 8-8 | | |
| 9 | 9-0 | 9-1 | 9-2 | 9-3 | 9-4 | 9-5 | 9-6 | 9-7 | 9-8 | 9-9 | |
| 10 | 10-0 | 10-1 | 10-2 | 10-3 | 10-4 | 10-5 | 10-6 | 10-7 | 10-8 | 10-9 | 10-10 |
| 11 | | 11-1 | 11-2 | 11-3 | 11-4 | 11-5 | 11-6 | 11-7 | 11-8 | 11-9 | 11-10 |
| 12 | | | 12-2 | 12-3 | 12-4 | 12-5 | 12-6 | 12-7 | 12-8 | 12-9 | 12-10 |
| 13 | | | | 13-3 | 13-4 | 13-5 | 13-6 | 13-7 | 13-8 | 13-9 | 13-10 |
| 14 | | | | | 14-4 | 14-5 | 14-6 | 14-7 | 14-8 | 14-9 | 14-10 |
| 15 | | | | | | 15-5 | 15-6 | 15-7 | 15-8 | 15-9 | 15-10 |
| 16 | | | | | | | 16-6 | 16-7 | 16-8 | 16-9 | 16-10 |
| 17 | | | | | | | | 17-7 | 17-8 | 17-9 | 17-10 |
| 18 | | | | | | | | | 18-8 | 18-9 | 18-10 |
| 19 | | | | | | | | | | 19-9 | 19-10 |
| 20 | | | | | | | | | | | 20-10 |

Please visit the website below to see examples of the resources we use in school.

[Free number fact teaching resources | Number Sense Maths](#)