| Number Fact Fluency Programme step by step |  |  | Totals to ten and adding ten |
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| Step | Strategy | Using the ten-frame trays | Additional Activities/Notes |
| 1 | Representing and recognising $0-10$ on a ten-frame | Ensure children always fill the top row first starting from the left and then start filling the bottom row from the left when the top row is full. <br> Encourage children to explain how they know the numbers 0-10 without having to count them. <br> E.g. "Show me ..6" "Can you do it without counting?" "How do you know you have ..6?" "How many more counters do you need to make ..9?" | - Use ten-frame flash cards to support instant recognition of the numbers 0-9 <br> - Children could record ten-frame number representations and match with the numeral <br> - Children could complete partly filled ten-frames to represent given numbers |
| 2 | Adding 1 <br> (grey cards) | 1. Children build both amounts (putting the larger number on the top ten-frame even when given, for e.g. $1+7$ instead of $7+1$ ) and move the single counter to create the total. They should say the answer without counting the counters. <br> 2. They build the amounts but imagine moving the single counter and say/record the number sentence. <br> 3. When they are ready (maybe later in the week) they imagine the counters on the ten-frames, imagine moving the single counter and say/record the number sentence. | - Children represent the facts as part-part-whole models and record the addition facts in different ways <br> - Ask, "What else do you know because you know...7+1=8?" This will encourage children to think of related facts: $(1+7=8 \quad 8-1=7 \quad 17+1=18 \quad 27+1=28)$ <br> - Use the 'adding one' flash cards (grey) to review progress <br> - Use real-life contexts and encourage children to create their own 'number stories' |
| 3 | Adding 2 to even numbers (red cards) | 1. Children build both amounts (putting the larger number on the top ten-frame) and move the smaller amount of counters to create the total. They say the answer without counting. <br> 2. They build the amounts but imagine moving the smaller number of counters and say/record the number sentence. <br> 3. When they are ready (later in the week) they imagine the counters on the ten-frames, imagine moving the smaller number of counters and say/record the number sentence. | - Children rehearse 'skip counting' in twos first from zero and then from any even number. <br> - Ask, "What else do you know because you know...4+2=6?" $(6-2=4 \quad 6-4=2 \quad 14+2=16 \quad 24+2=26)$ <br> - Use the 'adding two to even numbers' cards (red) to review progress <br> - Use real-life contexts and encourage children to create their own 'number stories' |
| 4 | Adding 2 to odd numbers (orange cards) | (Use the ten-frame trays as before.) | - Children rehearse 'skip counting' in twos first from one and then from any odd number. <br> - Ask, "What else do you know because you know...5+2=7?" $(7-2=5 \quad 7-5=2 \quad 15+2=17 \quad 25+2=27)$ <br> - Use the 'adding two to odd numbers' cards (orange) and real-life problems. |


| Num | ct Fluen | me step by step | Totals to ten and adding ten |
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| Step | Strategy | Using the ten-frame trays | Additional Activities/Notes (Continue to allow children to represent the facts in different ways.) |
| 5 | Adding 0 <br> (No change <br> facts) <br> (peach cards) | (Use the ten-frame trays as before.) Ask children what they notice when creating the two parts of the addition fact. (As one of the addends is zero they do not use any counters on one of the ten-frames.) | When zero is a 'part' children need to represent story problems (on ten-frames and part-whole models) to develop their understanding: <br> ‘There are 3 baby birds in a nest. No more birds have hatched. How many birds are in the nest?' <br> 'Sam found four coins on Saturday. He didn't find any coins on Sunday.' <br> 'On Sunday there were no eggs in the nest. On Monday there were 4 eggs.' |
| 6 | Number bonds to 10 <br> (+ near number bonds) (purple and lilac cards) | (Use the ten-frame trays as before.) 'What do you notice?' <br> 'The two parts fill one of the tenframes.' 'If 6 and 4 is 10,6 and 3 is 9 because it is one less than ten.' | - Number bonds songs <br> - Pattern spotting - when the number bonds to ten are listed systematically |
| 7 | Doubles of numbers to 5 (lime green cards) | (Use the ten-frame trays as before.) | - Spotting doubles in real-life (packaging e.g. egg boxes and multi-packs, hands, insects, dominoes) <br> - Real-life problems: '5 spots on a butterfly's wing so how many altogether? ' 4 holes for laces on one side of the shoe so how many in total?' |
| 8 | Near doubles (numbers to 5) (dark green cards) | (Use the ten-frame trays as before.) | Once children have mastered the double facts they can use this knowledge to look at near doubles. Ensure children explain their strategy, for example: $4+5$ can be explained as double 5 subtract 1 or double 4 add 1 (one less or one more) |
| 9 | Number in the middle (yellow cards) | (Use the ten-frame trays as before.) | This strategy will be used more when children look at the facts bridging ten. $5+3=8$ is the only fact that is not covered by the earlier strategies. It can be thought of as a 'double the number in the middle' fact: the number in the middle of 3 and 5 is 4 and double 4 is 8 |
| 10 | Adding 10 <br> (light blue cards) | (Use the ten-frame trays as before.) <br> 'What do you notice?' <br> 'We make the teen numbers.' <br> ' $10+7$ is the same as $7+10$ ' | - Ensure children have varied opportunities to practise adding ten to a singledigit number without counting, e.g. 16 people! |


| Number Fact Fluency Programme step by step |  |  | Bridging ten |
| :---: | :---: | :---: | :---: |
| Step | Strategy | Using the ten-frame trays | Additional Activities/Notes |
| 11 | Doubles of numbers to ten: $6+6,7+7,8+8,9+9$ <br> (lime green cards) | 1. Children build both amounts (addends) and move the counters from the lower ten-frame to make a ten and create the total. They say the answer without counting the counters and record the addition fact in different ways. <br> 2. They build the amounts but imagine moving the counters to make a ten and say/record the number sentence. <br> 3. Finally (later in the week) they imagine the counters on the ten-frames, imagine moving the counters to make a ten and say/record the number sentence. | - Children represent the facts as part-part-whole models and equations <br> - Ask, "What else do you know because you know... $\begin{aligned} & 6+6=12 ? \\ & \begin{array}{l} 12-6=6 \end{array} \quad 60+60=120 \\ & 36+36=60+12=72) \end{aligned} \quad 16+16=32$ <br> - Use real-life contexts and encourage children to create their own 'number stories' |
| 12 | Near doubles: $5+6,6+7,7+8,8+9$ <br> (dark green cards) | 1. Children build both amounts (addends) and move the counters from the smaller addend to make a ten and create the total. They say the answer without counting the counters and record the addition fact in different ways. <br> 2. They build the amounts but imagine moving the counters from the smaller addend to make a ten and say/record the number sentence. <br> 3. Finally (later in the week) they imagine the counters on the ten-frames, imagine moving the counters from the smaller addend to make a ten and say/record the number sentence. | - Children represent the facts as part-part-whole models and equations <br> - Ask, "What else do you know because you know ... $\left.\begin{array}{l} 6+7=13 ? \\ (13-6=7 \end{array} \quad 60+70=130 \quad 36+37=60+13=73\right)$ <br> - Use real-life contexts and encourage children to create their own 'number stories' |
| 13 | Bridging ten: $7+4$, $8+3,8+4,8+5$ (pink cards) | Use the ten-frame trays as before for the remaining bridging ten facts. | Use part-part-whole models, equations, related facts and real-life contexts as before. |
| 14 | Number in the middle: 5+7, 6+8, 7+9 (yellow cards) | Use the ten-frame trays as before. | Use part-part-whole models, equations, related facts and real-life contexts as before. |
| 15 | Adding 9 by making a ten (or compensating) (dark blue cards) | Use the ten-frame trays as before. | Use part-part-whole models, equations, related facts and real-life contexts as before. |

