

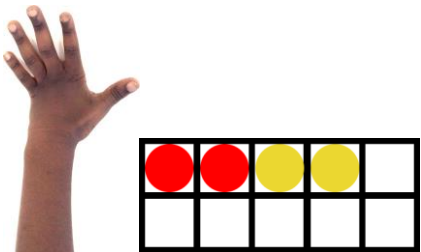
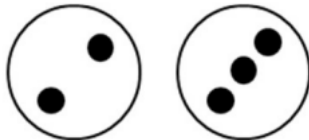

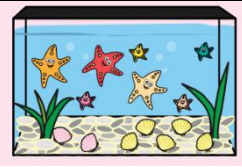






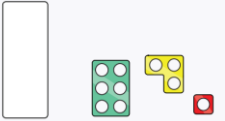
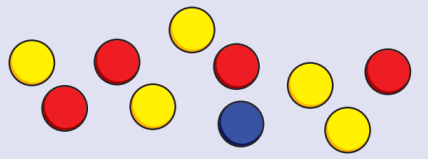
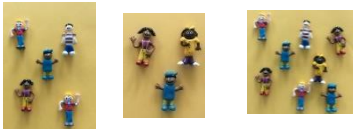
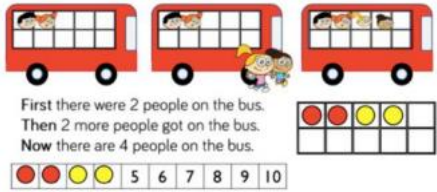
Calculation Policy

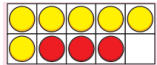
Addition


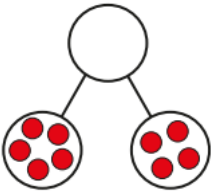
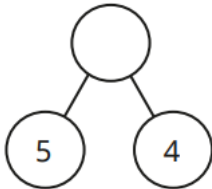

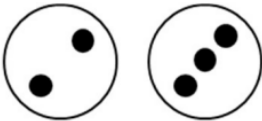



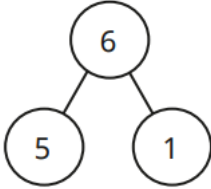
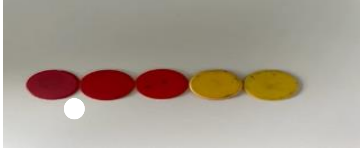
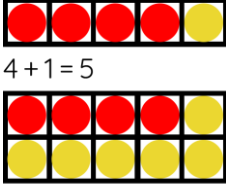
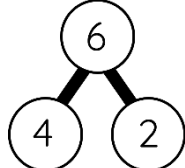

September 2024


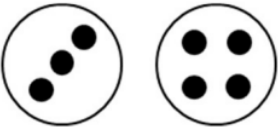
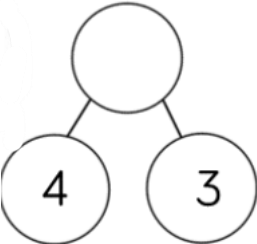
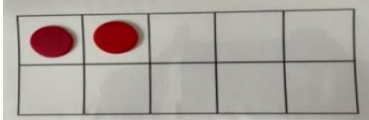

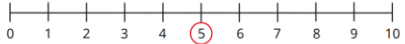
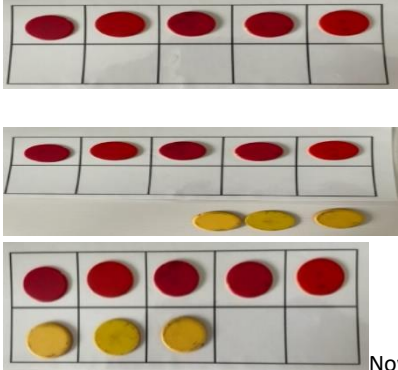

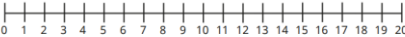

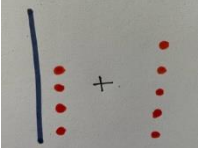
Addition:

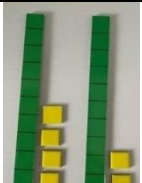

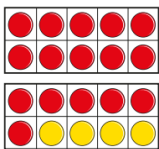

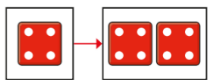

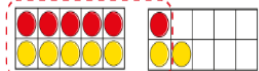
| EYFS: | | | |
|----------------------|---|---|---|
| Vocabulary: | first, then, now, add, plus, altogether, total, part, whole | Manipulatives & scaffolds: | Fingers Five frames Ten frames Double sided counters Numicon Cubes Bead strings Part-whole model |
| Small step: | Concrete: | Pictorial: | Abstract: |
| Combining two groups | Children begin to combine 2 groups of objects to find how many there are altogether  |  | How many ____ can you see? How many ____ can you see? How many can you see altogether? |
| 1 more |  There are 7 altogether. 1 more than 6 is 7. 7 is 1 more than 6. |  There are 7 (starfish). 1 more than 7 is 8. 8 is 1 more than 7. | There are ____ There are ____ altogether. ____ is 1 more than ____ 1 more than ____ is ____ |


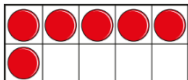

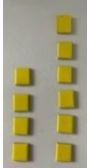
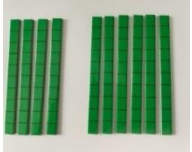
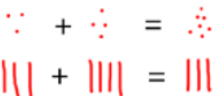



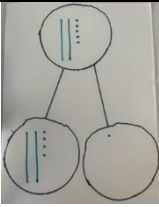
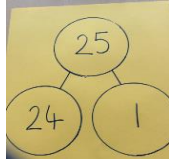
| | | | |
|-----------------------|--|---|---|
| Combine two groups |  <p>There are 3 here and 4 there. There are 7 altogether. 3 and 4 make 7.</p> |  <p>There are 4 dots and 2 dots. There are 6 altogether. 4 and 2 make 6.</p> | <p>There are ____ here and ____ there. There are ____ altogether. ____ and ____ make ____</p> |
| Bonds to 10 (2 parts) |  <p>The whole is 10. 6 is a part and 4 is a part. 6 and 4 are a bond to 10. If 6 is a part then the other part must be 4.</p> |  <p>The whole is 10 If 6 is a part then the other part must be 4. 6 and 4 are a bond to 10.</p> | <p>The whole is ____ ____ is a part and ____ is a part ____ and ____ are a bond to 10 If ____ is a part, then the other part must be ____</p> |
| Bonds to 10 (3 parts) |  <p>Use 3 Numicon pieces to cover a 10 piece. The whole is 10. I can see that 10 is made up of 6 and 3 and 1.</p> |  <p>There are 10 counters, the whole is 10. I can see that 10 is made up of 5 and 4 and 1.</p> | <p>I can see that 10 is made up of ____ and ____ and ____.</p> |
| Adding more | <p>Use 'first, then, now' number stories to find the answer to the question "How many now?" by providing meaningful contexts</p>  |  <p>First there were 2 people on the bus. Then 2 more people got on the bus. Now there are 4 people on the bus.</p> | <p>First there were ____ Then ____ more were added. Now there are ____ There are ____ altogether</p> |

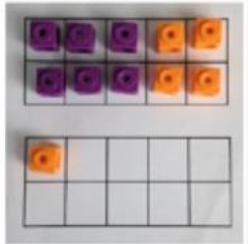
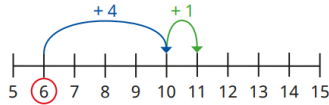

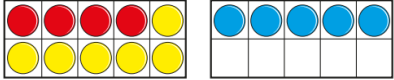
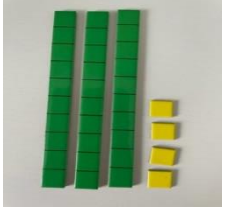

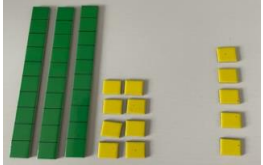
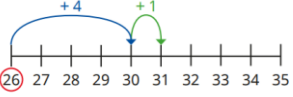
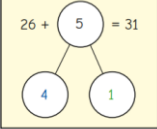
| | | | |
|---------------------|--|---------------------------------------|--|
| | First there were 5 people. Then there were 3 more. Now there are 8. | | |
| How many did I add? | Provide children with 'first, then, now' number stories where the 'then' part is missing: "There were 6 children on the bus, then we don't know how many more got on, but now there are 8 children on the bus."  Represent the starting number with yellow counters and then add red counters until they reach the total amount. The number of red counters represents the number that has been added. | | First there were ____ Now there are ____ ____ were added I added ____ |
| Y1 | | | |
| Vocabulary: | add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double | Manipulatives & scaffolds: | Ten frames Double sided counters Numicon Cubes Bead strings Part-whole model Bar model |
| | | | |
| Small step: | Concrete: | Pictorial: | Abstract: |

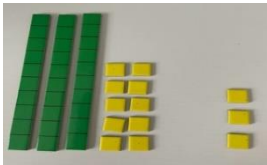
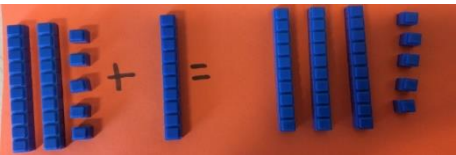
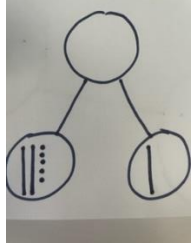
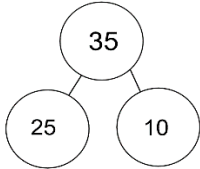
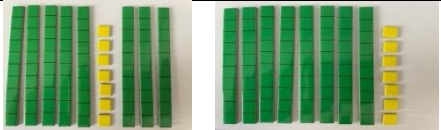
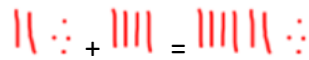
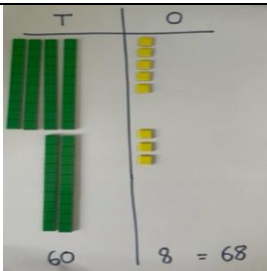
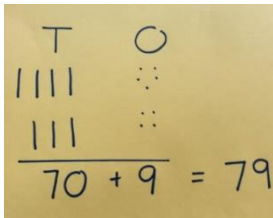
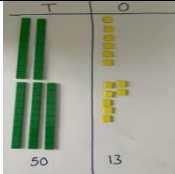
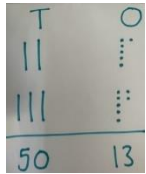
| | | | |
|--|--|--|--|
| <p>Understand part and whole relationships</p> | <p>Here are some frogs.</p> <ul style="list-style-type: none"> Can you see two groups of frogs? How many frogs are in each group? Complete the sentences. <p>_____ is a part. _____ is a part. The whole is _____</p>  |  <p>___ is a part ___ is a part The whole is ___</p> |  <p>___ is a part ___ is a part The whole is ___</p> |
| <p>Write number sentences</p> |  <p>Here are some counters. Group the counters by colour. ___ red counters plus ___ yellow counters is equal to ___ counters.</p> |  <p>$2 + 3 = 5$</p> |  <p>___ + ___ = ___</p> |
| <p>Fact families – addition facts</p> |  <p>First there were 3 children on the bus. Then 2 more children got on the bus. Now there are 5 children on the bus.</p> |  <p>___ + ___ = 7 7 = ___ + ___ ___ + ___ = 7 7 = ___ + ___</p> |  <p>$5 + 1 = 6$ $1 + 5 = 6$ $6 = 5 + 1$ $6 = 1 + 5$</p> |
| <p>Number bonds within 10</p> |  <p>$3 + 2 = 5$</p> |  <p>$4 + 1 = 5$ $4 + 6 = 10$</p> |  <p>$4 + 2 = 6$</p>  |

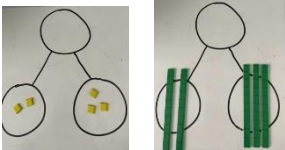
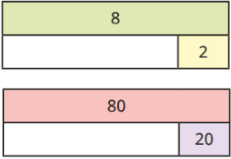
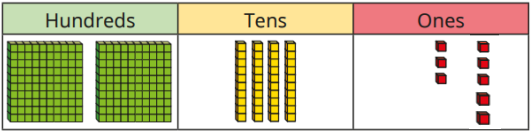
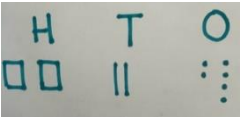
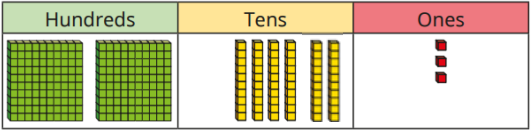
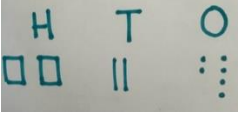
| | | | |
|---------------------------------------|---|---|---|
| <p>Add together</p> |  <p>$4 + 3 = 7$</p> |  <p>$3 + 4 = 7$</p> |  <p>$4 + 3 = 7$</p> |
| <p>Add more</p> |  <p>Put 2 counters in a tens frame. Now add 8 more counters. How many counters are there altogether?</p> | <p>$4 + 3 =$</p>  |  <p>$5 + \underline{\quad} = \underline{\quad}$</p> |
| <p>Add by counting on within 20</p> |  <p>First Then Now</p> <p>First there were 5 counters Then I added 3 Now there are 8 counters</p> | <p>Ann has 13 marbles. She gets 5 more marbles. How many marbles does Ann have now?</p>  |  <p>$9 + 6 = \underline{\quad}$</p> |
| <p>Adding ones using number bonds</p> |  |  <p>$14 + 2 =$</p> | <p>$12 + 4 =$</p> |

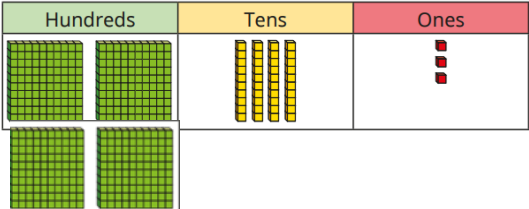
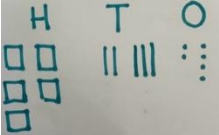
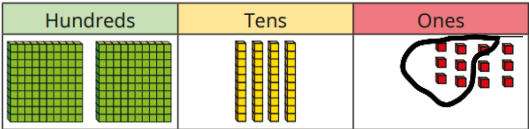
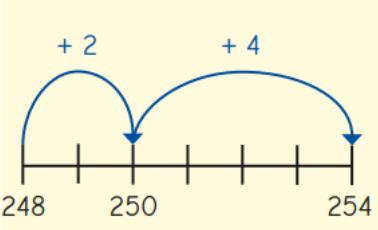
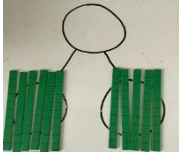
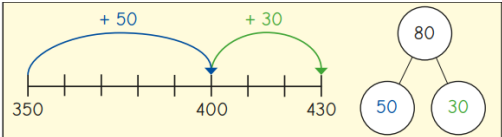
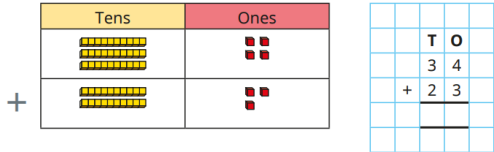
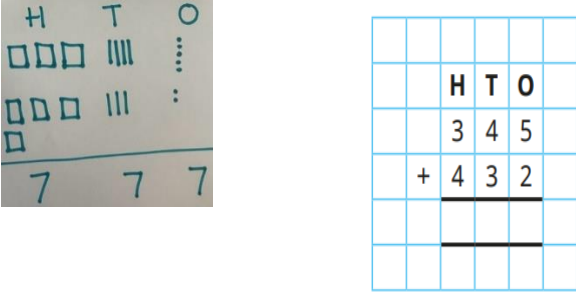
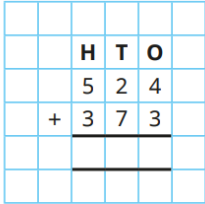
| | | | |
|----------------------------------|---|---|---|
| |  $14 + 2 =$ | | |
| Find and make number bonds to 20 |  $16 + 4 = 20$ |  $4 + 16 = 20$ | $20 = _ + _$ $20 = _ + _$ |
| Doubles |  Double 7 is $_$ |  Double 4 is $_$ | Double $_$ is $_$ |
| Near doubles |  $6 + 7 =$ $6 + 6 + 1 =$ Double $6 + 1 =$ |  $6 + 7 =$ double $_$ plus $_$ | Use doubles to work out the near doubles: $4 + 5 =$ $6 + 7 =$ $8 + 7 =$ |
| Y2 | | | |
| Vocabulary: | add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, commutative | Manipulatives & scaffolds: | Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts |

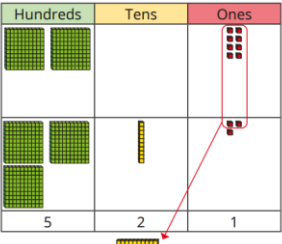
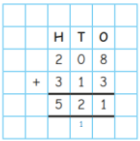
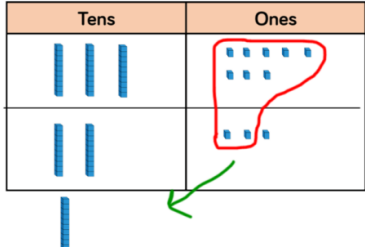
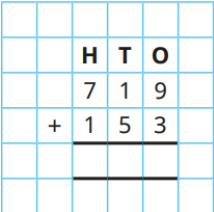
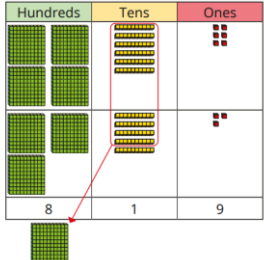

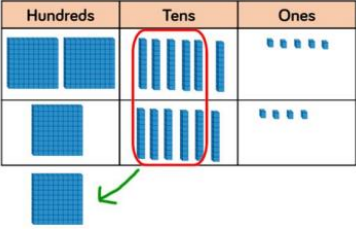
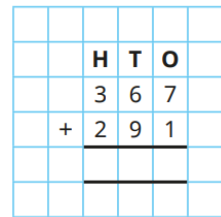

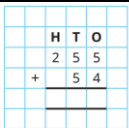
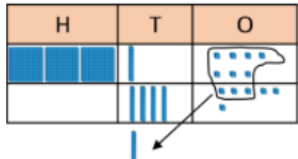
| Small step: | Concrete: | Pictorial: | Abstract: |
|---|--|--|--|
| Bonds to 10 |  $__ + __ = 10$ |  $5 + __ = 10$ | $__ + __ = 10$ $10 = __ + __$ |
| Fact families – addition bonds within 20 |  $__ + __ = __$ $__ + __ = __$ $__ = __ + __$ $__ = __ + __$ | | $__ + __ = __$ $__ + __ = __$ $__ = __ + __$ $__ = __ + __$ |
| Bonds to 100 (tens) |   $4 + 6 = 10$ $40 + 60 = 100$ |  $3 + 4 = 7$ $30 + 40 = 70$ | $__ + __ = 100$ $100 = __ + __$ |
| Add ones |    $24 + 1 = 25$ |   | $46 + 1 =$ $46 + 2 =$ $46 + 3 =$ |


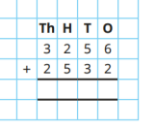
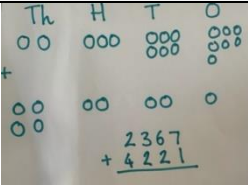
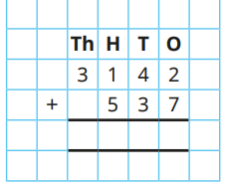
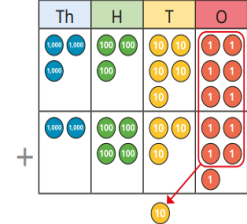

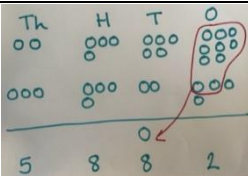
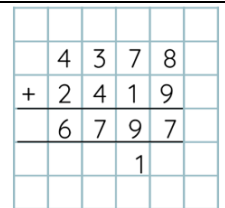
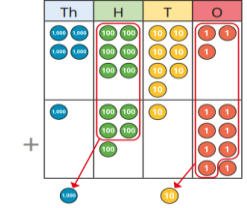
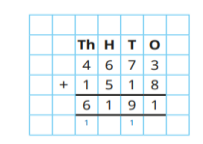
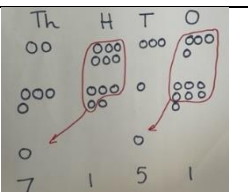
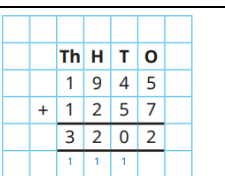
| | | | |
|----------------------------------|--|---|--|
| <p>Add by making 10</p> |  $6 + 5 = 10 + 1$ $= 11$ |  $6 + 5 = 10 + 1$ $= 11$ | $7 + 4 = 11$ <p><i>If I have seven, how many more do I need to make ten?</i></p> <p><i>How many more do I need to add?</i></p> |
| <p>Add three 1-digit numbers</p> |  $7 + 2 + 3 =$ |  $4 + 6 + 6 =$ | $7 + 5 + 3 =$ $7 + 5 + 3 = 15$ <p>10</p> |
| <p>Add to the next 10</p> |  <p>The Base 10 shows 34</p> <p>How many tens are there in 34?</p> <p>What is the multiple of 10 after 34?</p> <p>How many ones are there in 34?</p> <p>How many more ones do I need to add to get to the next multiple of 10?</p> $34 + \underline{\quad} = \underline{\quad}$ |  $67 + \underline{\quad} = 70$ | $45 + \underline{\quad} = 50$ $81 + \underline{\quad} = 90$ $32 + \underline{\quad} = 40$ |
| <p>Add across a ten</p> |  |   | $67 + 5 =$ |

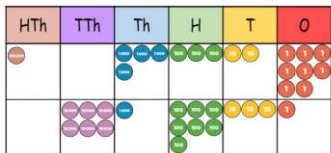

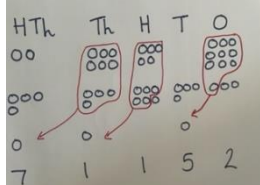
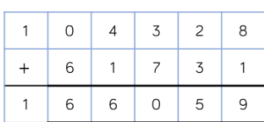
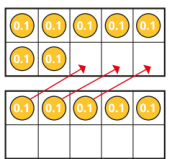
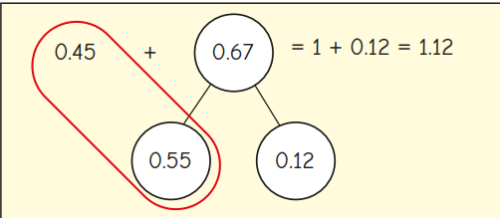
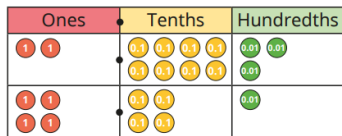
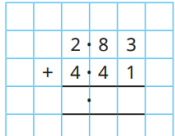
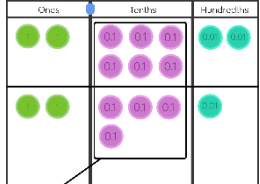
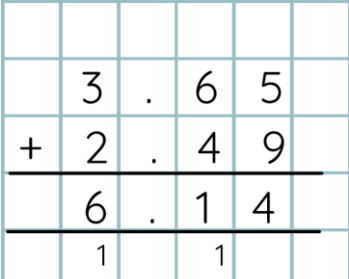
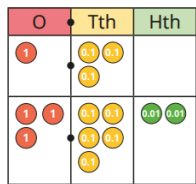
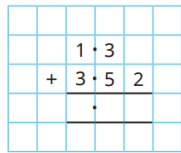
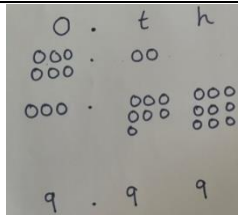
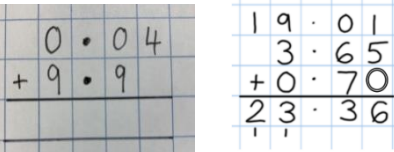
| | | | |
|---|---|--|--|
| |  $38 + 5 = 40 + 3$ | | |
| 10 more |  $25 + 10 = 35$ |   | $25 + 10 = 35$ $10 + 25 = 35$ $35 = 25 + 10$ $35 = 10 + 25$ |
| Add 10s |  $57 + 30 = 87$ |  $24 + 40 = 64$ | $23 + 10$ $54 + 40$ |
| Add two 2-digit numbers (not across a ten) |  $60 + 8 = 68$ | $45 + 34 =$  $70 + 9 = 79$ | $52 + 14$ $23 + 31$ |
| Add two 2-digit numbers (across a ten) |  $26 + 37 =$ $20 + 30 = 50$ | $26 + 37 =$  $20 + 30 = 50$ | $26 + 37$ $46 + 27 =$ $17 + 33 =$ |

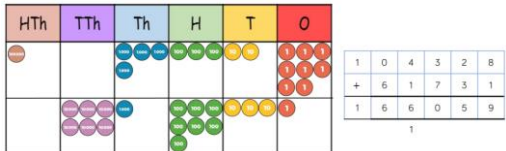
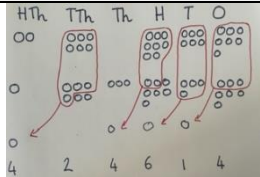
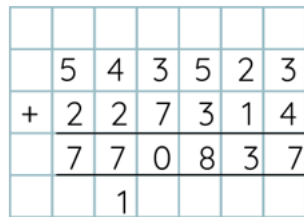
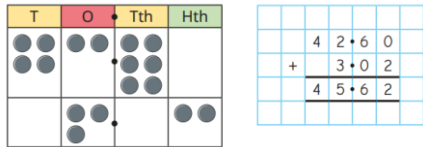
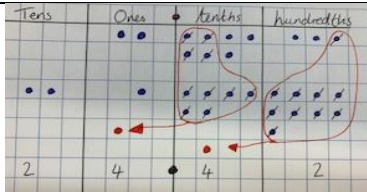
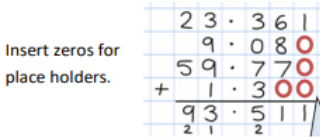
| | | | |
|--------------------|---|---|---|
| | $6 + 7 = 13$ $50 + 13 = 63$ | $6 + 7 = 13$ $50 + 13 = 63$ | |
| Y3 | | | |
| Vocabulary: | add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, exchange, regroup, hundreds | Manipulatives & scaffolds: | Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters |
| | | | |
| Small step: | Concrete: | Pictorial: | Abstract: |
| Apply number bonds |  $2 + 3 = 5$ $20 + 30 = 50$ |  $__ + 2 = 8$ $__ + 20 = 80$ | $2 + __ = 5$ $20 + __ = 50$ |
| Add ones |  $243 + 5 =$ |  $222 + 4 =$ | $354 + 4$ $215 + 3$ $461 + 8$ |
| Add tens |  $243 + 20 =$ |  $226 + 30 =$ | $546 + 30$ $743 + 50$ $229 + 60$ |

| | | | |
|--------------------------------------|--|--|---|
| <p>Add hundreds</p> |  <p>$243 + 200 =$</p> |  <p>$256 + 300 =$</p> | <p>$378 + 400$ $579 + 300$ $285 + 600$</p> |
| <p>Add 1s across a ten</p> |  <p>$243 + 9 =$ $243 + 7 = 250 + 2 =$ 252</p> |  <p>$248 + 6 =$ $248 + 2 = 250 + 4 =$ 254</p> | <p>$248 + 9$</p> |
| <p>Add 10s across a hundred</p> |  <p>$60 + 50 =$ $60 + 40 = 100$ $100 + 10 = 110$</p> |  <p>$350 + 80 =$ $350 + 50 = 400 + 30 = 430$</p> | <p>$695 + 80$ $476 + 60$</p> |
| <p>Add two numbers (no exchange)</p> |  |  |  |

| | | | |
|------------------------------------|--|--|---|
| Add two numbers (across a ten) |   |  $\begin{array}{r} 38 \\ + 23 \\ \hline 61 \\ 1 \end{array}$ |  |
| Add two numbers (across a hundred) |   |  $\begin{array}{r} 265 \\ + 164 \\ \hline 429 \\ 1 \end{array}$ |  |
| Add 2-digit and 3-digit numbers |   |  $\begin{array}{r} 317 \\ + 216 \\ \hline 533 \\ 1 \end{array}$ | 537 + 82 = |
| Y4 | | | |
| Vocabulary: | add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands | Manipulatives & scaffolds: | Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters |

| Small step: | Concrete: | Pictorial: | Abstract: |
|--|--|--|---|
| Add up to two 4-digit numbers – no exchange |   |  |  |
| Add two 4-digit numbers – one exchange |   |  |  |
| Add two 4-digit numbers – more than one exchange |   |  |  |
| Y5 | | | |
| Vocabulary: | add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands, decimals, tenths, hundredths, thousandths, decimal point | Manipulatives & scaffolds: | Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters |

| Small step: | Concrete: | Pictorial: | Abstract: |
|--|---|--|---|
| Add whole numbers with more than four digits |   |  $\begin{array}{r} 26509 \\ + 44643 \\ \hline \end{array}$ |  |
| Add decimals across one | $0.7 + 0.5$  <div> $0.7 + 0.3 = 1$ $1 + 0.2 = 1.2$ $0.7 + 0.5 = 1.2$ </div> | $0.45 + 0.67$  | $0.74 + 0.42$ |
| Add decimals with the same number of decimal places |   |  $\begin{array}{r} 2.62 \\ + 2.41 \\ \hline \end{array}$ |  |
| Add decimals with a different number of decimal places |   |  $\begin{array}{r} 6.2 \\ + 3.79 \\ \hline \end{array}$ |  |
| Y6 | | | |
| Vocabulary: | add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, | Manipulatives & scaffolds: | Ten frames Double sided counters |

| | | | |
|--------------------|---|--|--|
| | double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands, decimals, tenths, hundredths, thousandths, decimal point, integer | | Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters |
| Small step: | Concrete: | Pictorial: | Abstract: |
| Add integers |  |  $260867 + 163747$ |  |
| Add decimals |  |  $1.73 + 21.69 =$ |  <p>Insert zeros for place holders.</p> |