
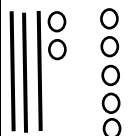

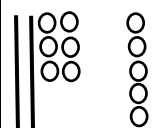
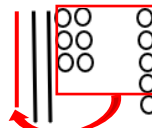






| YEAR 2  |      | Addition  |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
|---|------|-----------|----------|--|--|--|--|---|--|--|---|---|---|---|---|---|---|---|
| <b>Vocabulary:</b> Addition, add, plus, altogether, count on, equals, in total, in all, same as, whole, part, number bonds, number sentence, calculation, number, numeral, digit (one-digit, two-digit), odd, even, pattern, tens, ones, partition, commutativity, jottings, inverse. (see previous year groups)  |      |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
| Concrete  |      | Pictorial | Abstract |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
| Children need to be secure in number bonds to 10 and 20. See Year 1 addition policy.  |      |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
| <u>Adding 2 digit numbers + multiples of 1 and 10</u><br>Dienes<br><b>Linear</b> (preferred method)<br>$32 + 5 = 37$<br><br><table border="1" data-bbox="468 564 620 732"><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td></td><td></td></tr><tr><td></td><td></td></tr></tbody></table><br>3      7 |      | Tens      | Ones     |  |  |  |  | <u>Adding 2-digit numbers + multiples of 1 and 10</u><br>Jottings<br>$32 + 5 = 37$<br><br><br>Same method for adding a 2-digit number and tens and two 2-digit numbers together.   |  | <u>Adding 2-digit numbers + multiples of 1 and 10</u><br><b>Linear</b> (preferred method)<br>$32 + 5 = 37$<br><table border="1" data-bbox="1830 569 2098 788"><thead><tr><th>T</th><th>O</th></tr></thead><tbody><tr><td>3</td><td>2</td></tr><tr><td>+</td><td>5</td></tr><tr><td>3</td><td>7</td></tr></tbody></table><br><br>These written methods only to be shown alongside pictorial rerepresentation. | T | O | 3 | 2 | + | 5 | 3 | 7 |
| Tens  | Ones |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
|   |      |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
|   |      |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
| T   | O    |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
| 3   | 2    |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
| +   | 5    |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
| 3   | 7    |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
| <u>Crossing the tens boundary</u><br>Exchanging<br>Dienes<br><b>Linear</b> (preferred method)<br>$26 + 5 = 31$<br><br><table border="1" data-bbox="486 1123 636 1307"><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td></td><td></td></tr><tr><td></td><td></td></tr></tbody></table><br>3      1   |      | Tens      | Ones     |  |  |  |  | <u>Crossing the tens boundary</u><br>Exchanging<br>Jottings<br><br><b>Count on</b><br>$26 + 5 = 31$<br><br><br><b>Exchange</b><br>$26 + 5 = 31$<br><br><br>Same method for adding a 2-digit number and tens and two 2-digit numbers together. |  |  |   |   |   |   |   |   |   |   |
| Tens  | Ones |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
|   |      |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |
|   |      |           |          |  |  |  |  |   |  |  |   |   |   |   |   |   |   |   |

## Summer Term

Column method using Numicon (to aid transition to the Junior School).

| Tens   | Ones  |
|--|---|
|  |  |
|  |  |
| 5  | 4   |

No pictorial representation. Stop at concrete.

## Mental Methods

### Number facts:

Known complements to the next multiple of 10

$$52 + \underline{\quad} = 60$$

Know pairs of multiples of 10 totalling 100

$$60 + \underline{\quad} = 100$$

Number bonds to 10:

$$46 + 4 = 50 \quad (6 + 4 = 10)$$

### Counting on:

$$37 + 20 \text{ (+10 then +10)}$$

$$42 + 23 \text{ (+20 then +3)}$$

$$47 + 15 \text{ (+10, +3 to the next 10 then +2)}$$

### Near doubles:

$$\text{If } 7 + 7 = 14$$

$$\text{Then } 7 + 8 = 14 + 1 = 15$$

### Redistribution:

$$38 + 47$$

$$\text{Redistribute to } 40 + 45 = 95$$

### Partitioning:

$$23 + 12$$

$$20 + 10 = 30; 3 + 2 = 5; 30 + 5 = 35$$

### Adjusting:

$$34 + 9 \text{ (+10 then subtract 1)}$$

$$45 + 19 \text{ (+20 then subtract 1)}$$

### Using known facts and place value:

$$63 + 4$$

$$\text{If } 3 + 4 = 7 \text{ then } 63 + 4 = 67$$

$$40 + 50$$

$$\text{If } 4 + 5 = 9 \text{ then } 40 + 50 = 90$$

### Inverse:

Understand and use the inverse to solve missing number problems/calculations:

$$45 + 8 = 53$$

$$8 + 45 = 53$$

$$53 - 45 = 8$$

$$53 - 8 = 45$$