

# Mathematics teaching and methods at The Bellbird

Resources we use often:

- Number lines
- Counters
- Hundred squares
- Multilink cubes
- Place value cards.



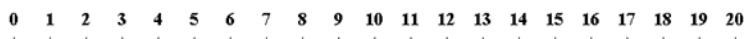
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



## Addition

### Partitioning

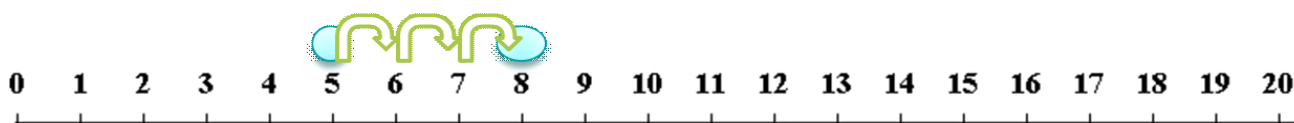
$$25+33= 58$$



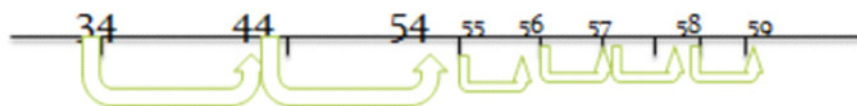
- Step 1 - partition the numbers (tens 20+30) (units 5+3)
- Step 2 - add up the tens (20+30 =50)
- Step 3 - add up the units (5+3=8)
- Step 4 - add both (50+8=58)

### Using a number line

- Adding  $5+3 = 8$
- Step 1 - start on the biggest number and count on the jumps.



- E.g.  $34+25=59$
- Step 1 - partition the 2nd number (20+5)
- Step 2 - jump on the tens number (20 or 2tens)
- Step 3 - jump on the units number (5)



### Adding using a hundred square

Adding 12 e.g.  $54 + 12 = 66$

Step 1 :Partition the number ( one 10, two units) 10 & 2

Step 2: add on the 10 ( down 1)

Step 3 add on the units ( right 2)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Adding 11: e.g.  $25 + 11 = 36$

Step 1: find 25 on number square

Step 2: simplify the equation ( add 10 + 1).

To add 10 simple go down one on the number

Grid then then take add 1 to make 11 ( go right 1 space)

### Subtraction

#### Partitioning

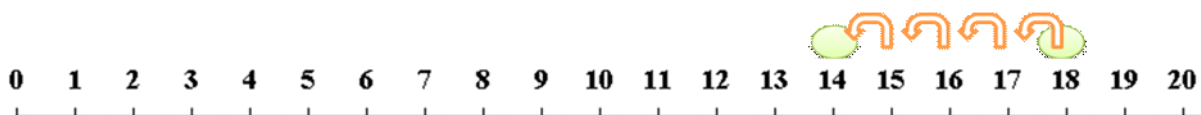
$30 - 15 = 15$

- Step 1 - partition the smallest number (10 and 5)
- Step 2 - take away the tens ( $30 - 10 = 20$ )
- Step 3 - take away the units from the number ( $20 - 5 = 15$ )

#### Using a number line

Subtracting  $18 - 4 = 14$

Step 1: start on the biggest number and count back in jumps.



Using a blank number line and hundred square - same method as above but jumping backwards.

## Multiplication

### Repeated addition

First recognize that multiplication is repeated addition. E.g.  $3 \times 5 = 15$

No of lots	how many per group	=	total
3	5	=	15

Is the same as 3 lots of 5 or  $5 + 5 + 5 = 15$

### Arrays

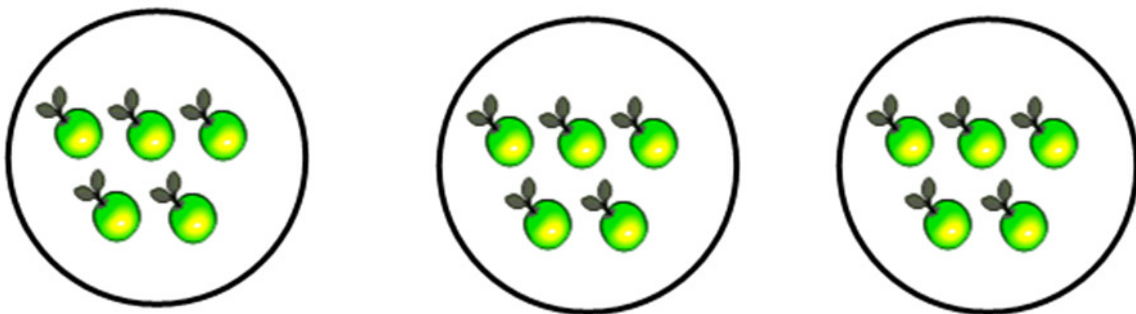
Children are also taught to use and see 'arrays' to describe multiplication. An array is simply an arrangement of number in rows.

E.g  $5 \times 3$



## Division

The children are taught the sharing method of division. E.g.  $15 \div 3 = 5$ , the children will visually



share 15 between 3 groups to record how many are in each.

We also learn to divide by grouping.

E.g.  $12 \div 3 = 4$  is the same as 12 but into 4 groups of 3

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