



Walter Infant School and Nursery

To be the best I can be



Key Stage One

Calculation Methods

Addition



Addition Vocabulary

- **add**
- **more**
- **plus**
- **make**
- **sum**
- **total**
- **altogether**



Counting on using fingers

$$14 + 5 = 19$$

Start from the first number in the calculation and count on using fingers. We might say to the children to put 14 in their head and count on 5 using fingers.



Combining groups of objects

$$14 + 5 = 19$$



Counting on using a 100 square

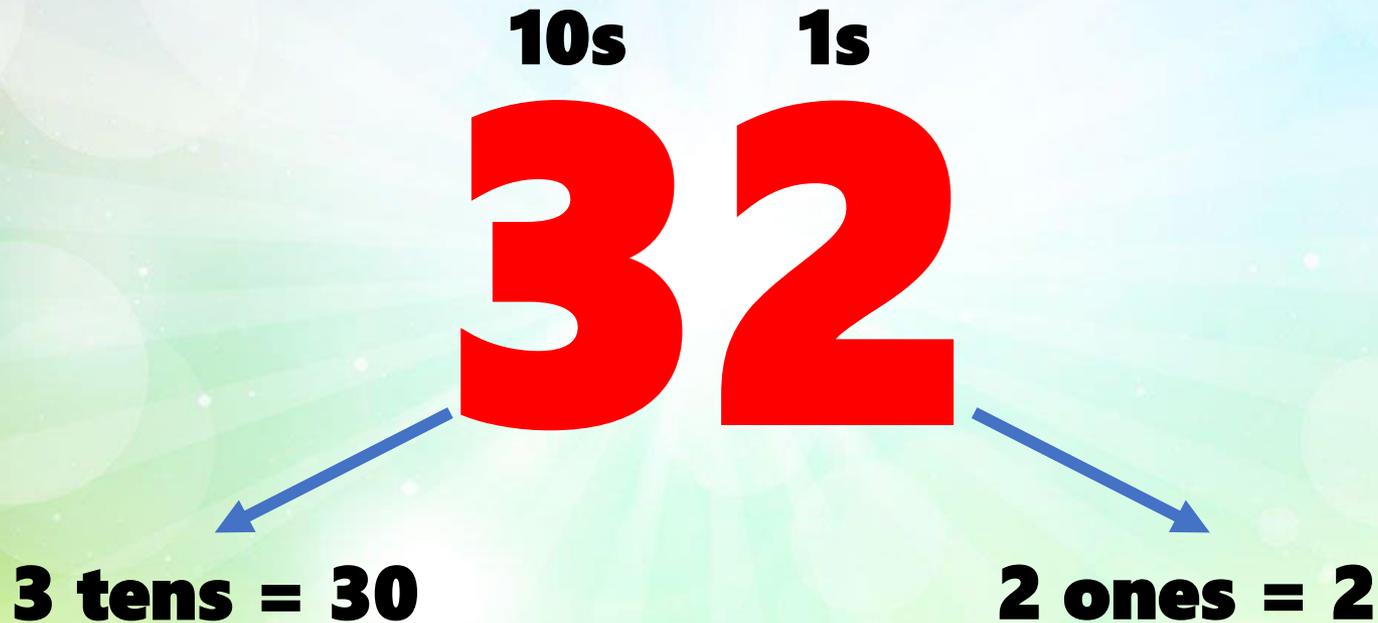
$$28 + 9 = 37$$

Find the first number in the calculation and count on the second number. For example, start on 28 and count on 9 equals 37.

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

Partitioning numbers

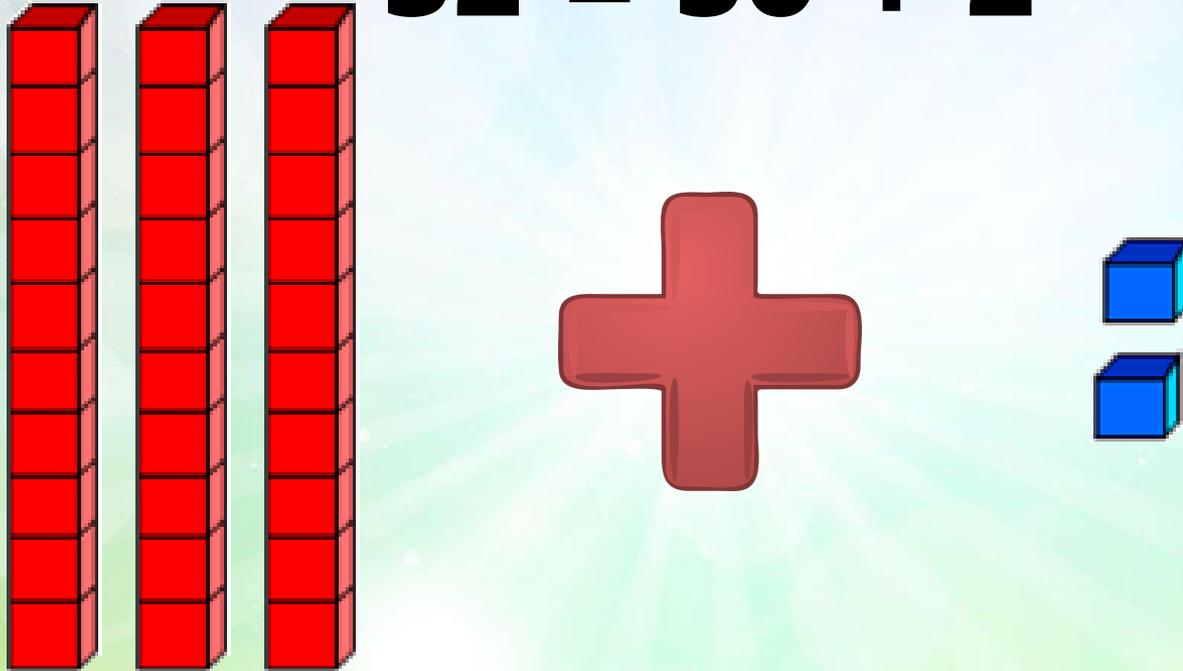
$$32 = 30 + 2$$



To help understand place value we can partition numbers into tens and ones. This also makes the numbers easier to manage when performing calculations.

Partitioning using Dienes

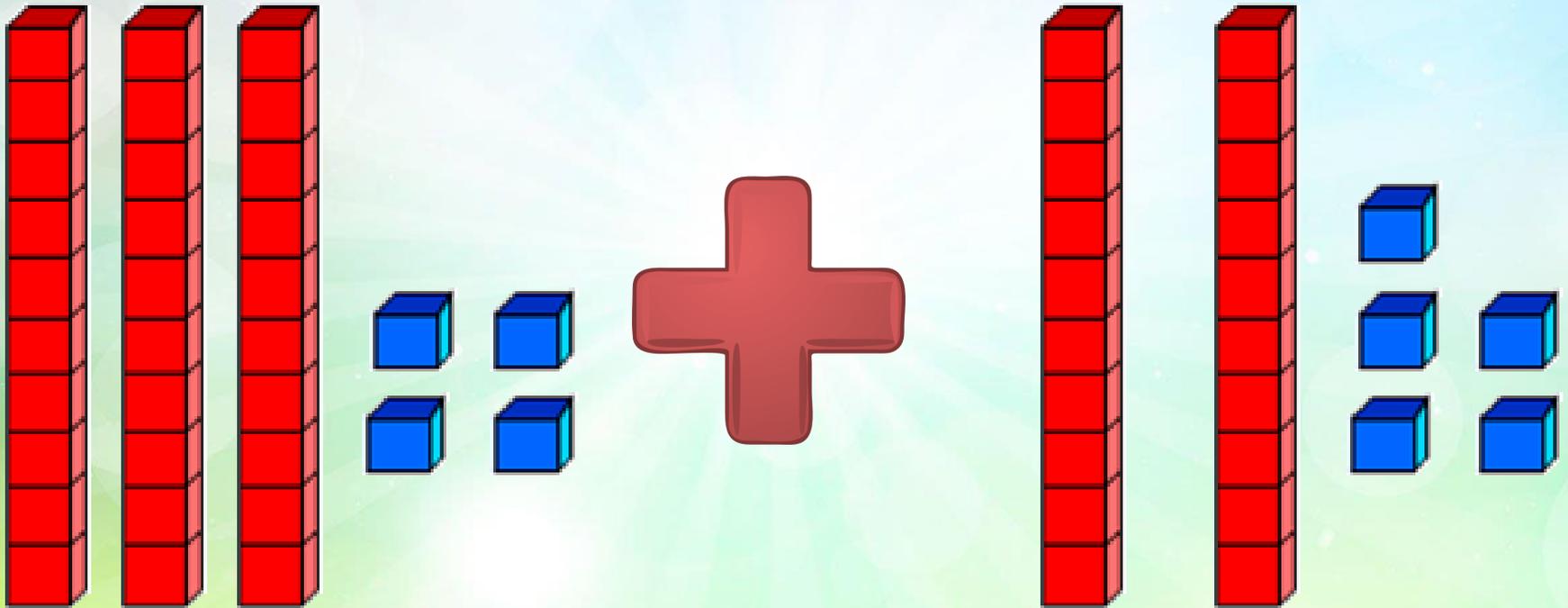
$$32 = 30 + 2$$



Dienes are a physical resource that we use in school. They are made up of little cubes that represent 1 and rods that represent 10. We can use these to partition numbers into tens and ones to show the place value. This also helps with adding and subtracting later on.

Adding with Dienes

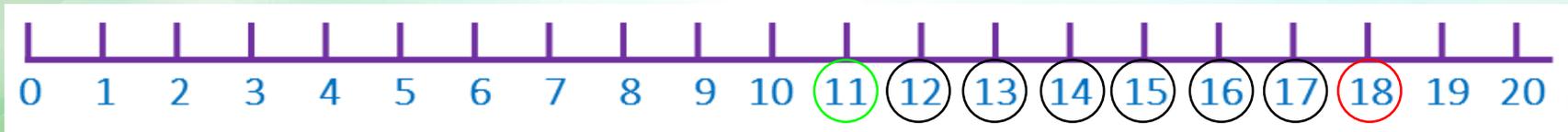
$$34 + 25 =$$



Dienes are a physical resource that we use in school. They are made up of little cubes that represent 1 and rods that represent 10.

Counting on using a number track

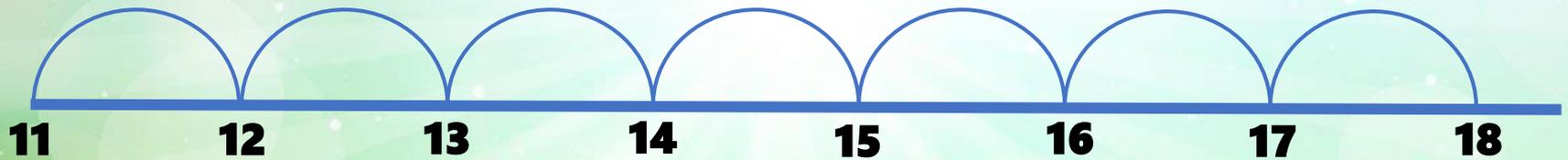
$$11 + 7 = 18$$



Start on the first number in the calculation. Count on the second number as 'jumps'. For example, find 11 and count on 7 jumps equals 18.

Counting on using an empty number line

$$11 + 7 = 18$$

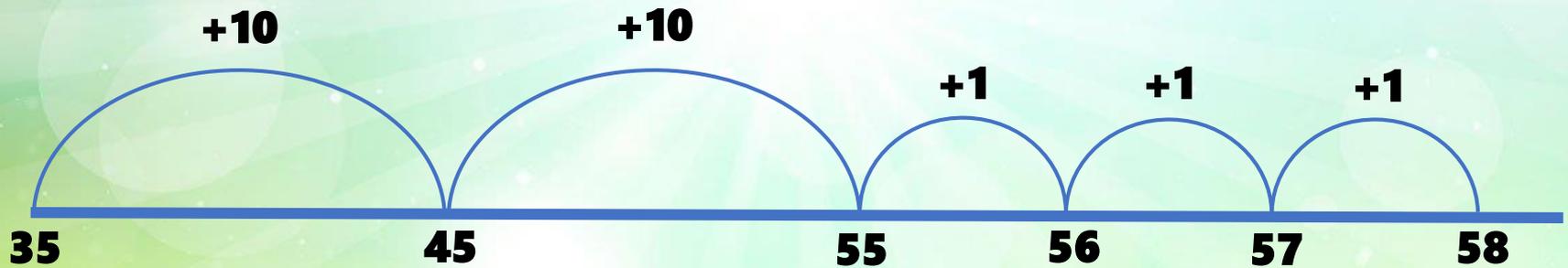


Start on the first number in the calculation. Count on the second number as 'jumps'. For example, write 11 on the left end of the line and count on 7 jumps equals 18.

Jumps of 10 using an empty number line

$$35 + 23 =$$

$$35 + 20 + 3 = 58$$

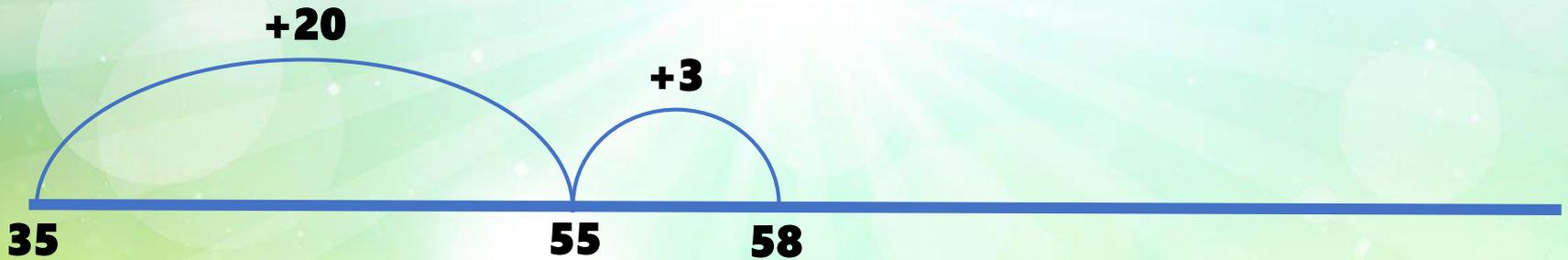


Start on the first number in the calculation. Partition the second number into tens and ones. Add the tens in jumps of ten, then add the ones in jumps of one.

Jumps of 10 using an empty number line

$$35 + 23 =$$

$$35 + 20 + 3 = 58$$



Start on the first number in the calculation. Partition the second number into tens and ones. We add the tens number (20) and then add the ones number (3).

Bubble and Partition

$$30 + 20 = 50$$

$$35 + 23 = 58$$

$$5 + 3 = 8$$

Draw a bubble around the two numbers with lines. Partition the numbers, record the tens numbers at the top and the ones numbers down the bottom. Find the total for the tens and the ones and add these together.

Bubble and Partition

$$40 + 30 = 70$$

$$45 + 38 = 83$$

$$5 + 8 = 13$$

Draw a bubble around the two numbers with lines. Partition the numbers, record the tens numbers at the top and the ones numbers down the bottom. Find the total for the tens and the ones and add these together.

Bar modelling

$$35 + 23 = 58$$

35	23
58	

Expanded column method

$$35 + 23 = 58$$

$$30 + 5$$

$$20 + 3$$

$$50 + 8 = 58$$

Column method

$$35 + 23 = 58$$

$$\begin{array}{r} 35 \\ + 23 \\ \hline 58 \\ \hline \end{array}$$

Column method

$$38 + 24 = 62$$

$$\begin{array}{r} 38 \\ + 24 \\ \hline 62 \\ \hline 1 \end{array}$$