

The recommended manipulatives (physical resources) for adding 1- or 2-digit numbers to 20 are:

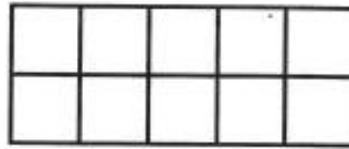
- Counters



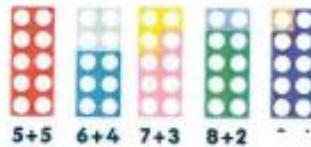
- Cubes



- Ten frames



- Numicon

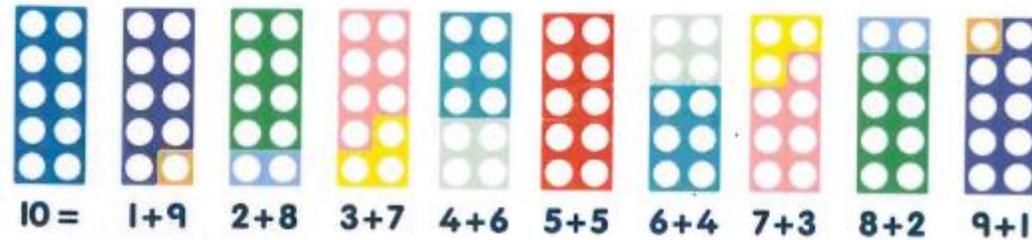


- Real life objects



Key Vocabulary

Number bonds – a pair of numbers that add up to make another number.



Sum – the total of two or more numbers added together.

Addition:

$$8 + 3 = 11$$

Addend Addend Sum or Total

The equation $8 + 3 = 11$ is shown with arrows pointing from the labels below to the corresponding numbers. A blue arrow points from 'Addend' to the number 8. A red arrow points from 'Addend' to the number 3. An orange arrow points from 'Sum or Total' to the number 11.

Addend – a number that is added to another.

The recommended manipulatives (physical resources) for multiplication and division are:

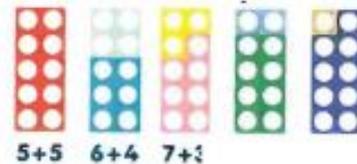
- Counters



- Cubes



- Numicon

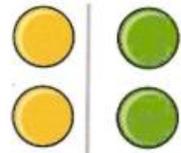


- Real life objects

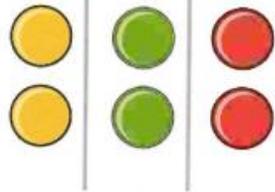


Key Vocabulary

Arrays – an arrangement of objects/pictures in rows and columns.

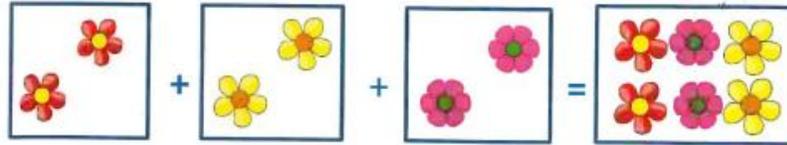


$$2 + 2 = 4$$



$$2 + 2 + 2 = 6$$

Repeated addition – to add equal groups or the same number over and over



$$2 + 2 + 2 = 6$$

$$3 \text{ groups of } 2 = 6$$

$$3 \times 2 = 6$$

The recommended manipulatives (physical resources) for subtracting 1- or 2-digit numbers to 20 are:

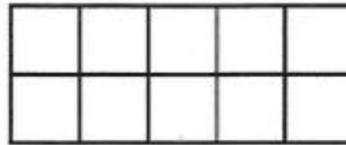
- Counters



- Cubes



- Ten frames



- Numicon



- Real life objects



Key Vocabulary

Difference – the result of subtraction – finding the distance between two numbers.

Subtrahend – the number that is subtracted

minuend subtrahend difference

↓ ↓ ↓

$$13 - 4 = 9$$

subtraction sign equals

↑ ↑

Partition – to split into smaller parts.

