

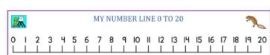
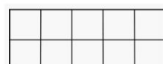



# Broadmayne First School Knowledge Organiser

Maths Focus	Addition and Subtraction within 20	Year 1	Spring 1
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## Symbols used in equations.

+ Add	- Subtract	= Equals
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Addition Vocabulary	Subtraction Vocabulary
add	subtract
altogether	take away
sum (also known as total)	difference
plus	minus

Practical resources
 Number Line  Tens Frame  Cubes  Numicon  Counters

## Number Bonds to 20.

## Tens and ones



The 1 represents 1 ten.  
 The 6 represents 6 ones.  
 The number is 16.

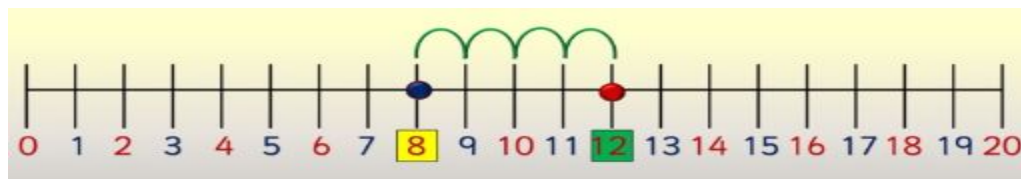
## Ten ones equal (is the same as) one ten.

As the numbers that we encounter in our maths problems get larger, we can use dienes more effectively than cubes to represent these numbers. Dienes (as shown in the image above) can help us to visually compare numbers and to solve addition and subtraction problems.

## Key Knowledge - Addition and subtraction

Addition and subtraction - by counting on or counting back using a number line.

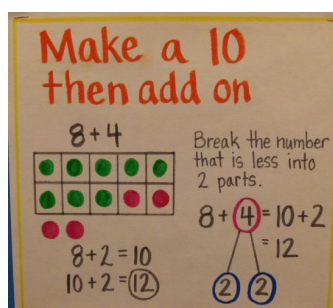
We will continue to use this same strategy for solving equations within 20. We will also use our knowledge of counting to count on or back 'in our head' to solve equations or practical problems.



$$8 + 4 = 12$$

$$12 - 4 = 8$$

### Addition by making 10.



We will use our knowledge of our number bonds to help us solve addition problems. We can partition (split) the smaller number and use it to make the other number into 10. We can then add on the remaining amount.

### Addition by adding the ones



We can use our knowledge of partitioning numbers into tens and ones so that we can solve equations by adding together the ones and then add on the ten.

### Number Families (Addition and Subtraction)

From a number bond, we can write several equations.



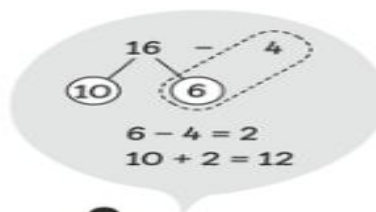
$$\begin{array}{rcl} 8 & + & 4 = 12 \\ 4 & + & 8 = 12 \end{array}$$

This is a family of addition and subtraction facts.

$$\begin{array}{rcl} 12 & - & 8 = 4 \\ 12 & - & 4 = 8 \end{array}$$



### Subtraction by subtracting the ones first



Again we can use our knowledge of partitioning numbers into tens and ones so that we can solve equations by subtracting (taking away) the ones. **Remember to take away from the biggest number!** Finally, once we have subtracted the ones, we can add together the remaining numbers.

