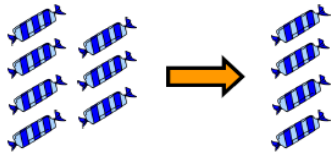


# YR1 ADDITION AND SUBTRACTION KNOWLEDGE ORGANISER

## Early Subtraction

First experiences of subtraction should be practical in a real life context before using the - symbol.

For example, if there were 7 sweets and 3 of them were eaten, how many would be left?



First, there were 7. Now, there are 4.

## "Taking Away"

Before moving on to a more formal method, continue using practical examples. Use the - symbol, teaching the concept of 'taking away'.

For example, there were 5 balloons. 2 blew away. How many are there now?



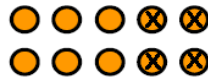
$5 - 2 = 3$   
Five take away 2 equals 3.

## Subtracting Pictorially

Drawing and crossing out is an effective way of starting to formalise subtraction.



For  $10 - 4$ , you need to draw ten circles and cross out 4.



## Subtracting on a Number Line

In Year 1, fluency in carrying out subtraction using a number line should be mastered.

For  $8 - 3$ , you should start on the number 8 and count back 3. The answer is 5. The number sentence is  $8 - 3 = 5$ .



## Misconception Alert!



Remember not to include the starting number in your steps backwards!

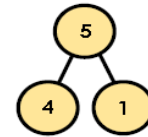
## Fact Families

As more confidence is built with both addition and subtraction, links and patterns will start to be seen between them.



With 3 numbers, you can write 8 different number sentences.

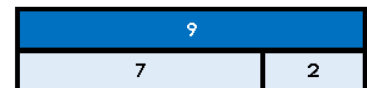
$4 + 1 = 5$   
 $1 + 4 = 5$   
 $5 - 4 = 1$   
 $5 - 1 = 4$



$5 = 4 + 1$   
 $5 = 1 + 4$   
 $4 = 5 - 1$   
 $1 = 5 - 4$

## Missing Numbers

You can use your knowledge of number bonds and fact families to help find missing numbers.



$? + 2 = 9$



If something add 2 equals 9, then 9 take away 2 equals the missing number. I know it is 7.

# YR1 ADDITION AND SUBTRACTION KNOWLEDGE ORGANISER

## Key Concepts

- Read and write calculations using + - and =
- Use number bonds and related subtraction facts within 20
- Add and subtract one and two digit numbers to 20.
- Solve missing number problems

## Key Vocabulary

- symbol
- add
- more
- plus
- make
- altogether
- subtract
- take away
- less
- equals
- number bonds
- number line



## Addition

When carrying out addition the mathematical symbols + and = should be recognised and applied.

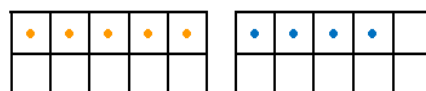
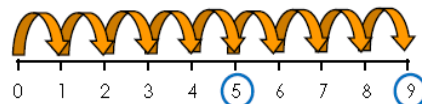
For example, if there are 4 orange and 2 blue counters, there are 6 counters in total.



This can be written as  $4 + 2 = 6$ .  
Four add two equals 6.

## Adding Numbers by Counting All

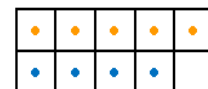
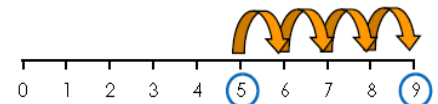
One strategy used when adding is counting all of the objects to find the answer. For  $5 + 4 = 9$ , you count to 5 before counting another 4 to reach 9.



## Adding Numbers by Counting On

Another strategy to use is counting on from the first number to reach the answer.

For  $5 + 4 = 9$ , you start at 5 and count on 4 more.



## Number Bonds with Numbers to 10

It is important to understand all of the ways that each number to 10 can be partitioned. This is called a number bond.



These are all of the number bonds for the number 5!

$0 + 5 = 5$        $3 + 2 = 5$   
 $1 + 4 = 5$        $4 + 1 = 5$   
 $2 + 3 = 5$        $5 + 0 = 5$