ADDITION and SUBTRACTION (to 20) KNOWLEDGE ORGANISER
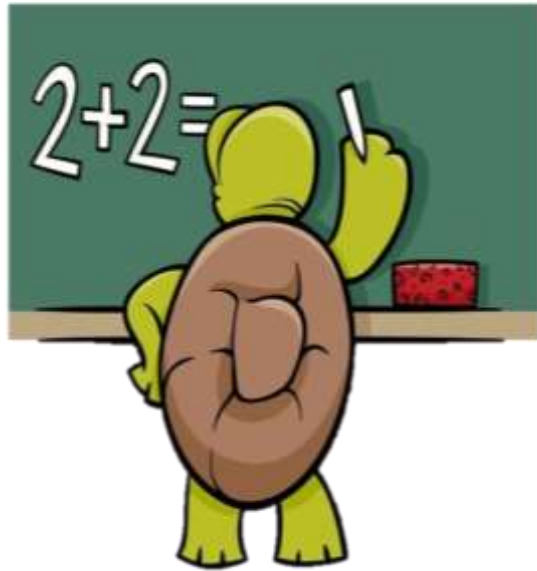
Overview

Addition and Subtraction we learn:

-Add by Counting On

-Find and Make Number Bonds

-Add by Making 10

-Subtraction (Not Crossing 10)   -Related Facts

-Subtraction Crossing 10   -Compare Number Sentences

Addition and Subtraction is useful learning because it is used in many areas of everyday life – e.g. shopping, cooking, or playing games. It also forms the basis for lots of other maths ideas.

Number Bonds

Number bonds are pairs of numbers that can be added to make another number.

-We should learn number bonds up to 10.

-The images here show the number bonds to make 10.

Compare Number Sentences

| > Greater than | < Less than | = Equal to |

Examples

$14 + 3 > 4 + 3$

$16 = 20 - 4$

$12 - 2 < 13 - 1$

Number Bonds to 10

0 1 2 3 4 5   5 6 7 8 9 10

$0 + 10 = 10$	$10 + 0 = 10$
$1 + 9 = 10$	$9 + 1 = 10$
$2 + 8 = 10$	$8 + 2 = 10$
$3 + 7 = 10$	$7 + 3 = 10$
$4 + 6 = 10$	$6 + 4 = 10$
$5 + 5 = 10$	$5 + 5 = 10$

Number Bonds to 20

$0 + 20 = 20$	$20 + 0 = 20$
$1 + 19 = 20$	$19 + 1 = 20$
$2 + 18 = 20$	$18 + 2 = 20$
$3 + 17 = 20$	$17 + 3 = 20$
$4 + 16 = 20$	$16 + 4 = 20$
$5 + 15 = 20$	$15 + 5 = 20$
$6 + 14 = 20$	$14 + 6 = 20$
$7 + 13 = 20$	$13 + 7 = 20$
$8 + 12 = 20$	$12 + 8 = 20$
$9 + 11 = 20$	$11 + 9 = 20$
$10 + 10 = 20$	$10 + 10 = 20$

Counting On/ Counting Back

Number lines can be used to help us count on/ count back when adding or subtracting.

Counting On

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

By counting on, I can see that $7 + 4 = 11$

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

By counting back, I see that $15 - 3 = 12$
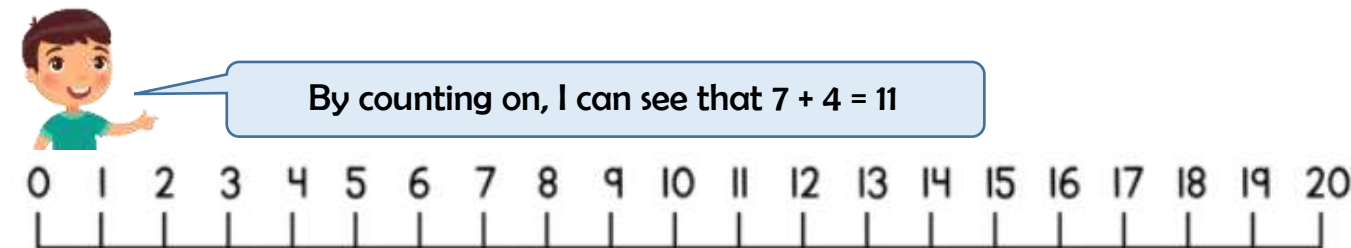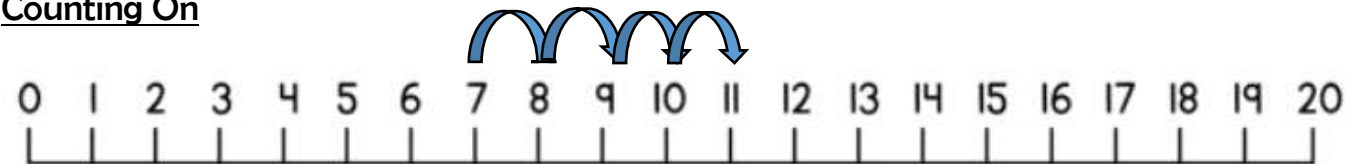
Partitioning/ Crossing 10

We can cross 10 by partitioning numbers.

Addition

for 8 + 4...
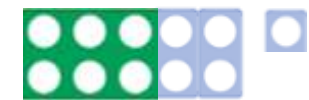
...we can partition the 4 into 2 and 2.

$8 + 2 = 10$

$10 + 2 = 12$

Subtraction

for 11 – 5...

...we can partition the 5 into 1 and 4.

$11 - 1 = 10$

$10 - 4 = 6$

Key Vocabulary

| Number | Count | Add | Subtract | Take Away | Difference | Plus | Number Line | Number Bond |