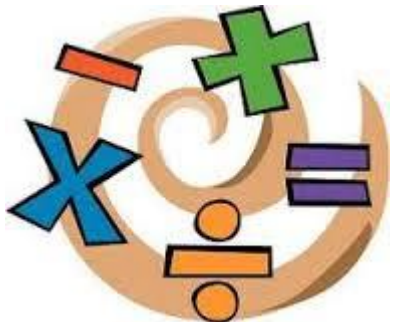# **<u>Aims</u>**
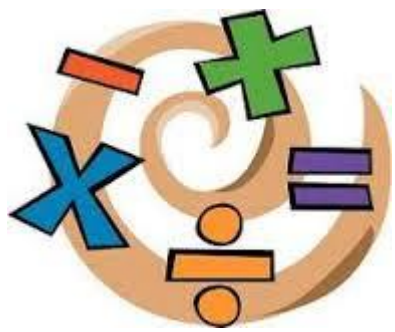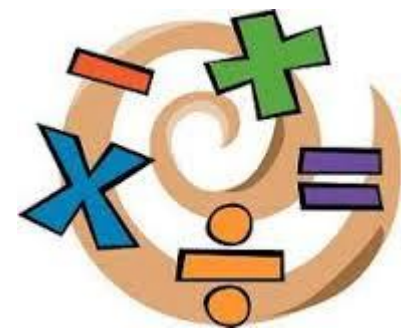
- To get an insight into how Maths is taught here at Dilton.

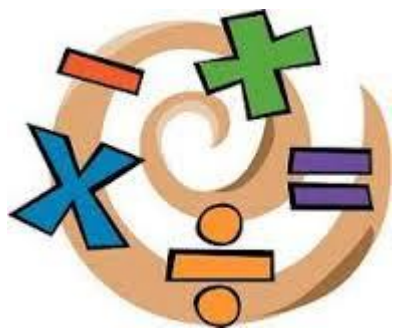- To take away some ideas to support your children at home.

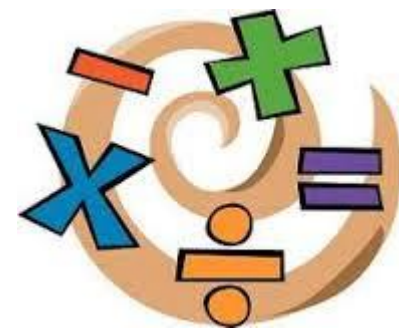# **Changing Attitudes**

Discuss 3 positive and negative experiences of Maths you had when you were a child.
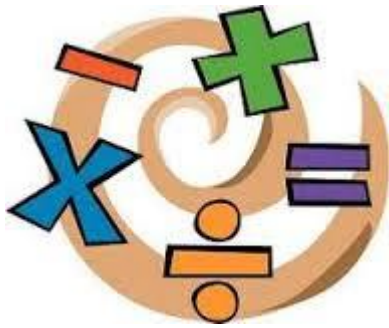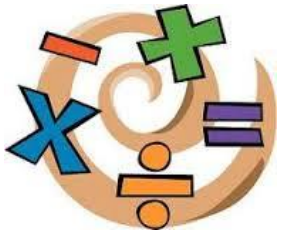
Examples...

Changing Attitudes

If children hear, "I can't do Maths" from parents, teachers, friends they begin to believe it isn't important

Numberless

If all the numbers in the world were rubbed out, removed, taken away:

I wouldn't know how old I was,
I wouldn't know the time of day,
I wouldn't know which bus to catch,
I wouldn't know the number of goals I had scored,
I wouldn't know how many scoops of ice-cream I had,
I wouldn't know the page on my reading book,
I wouldn't know how tall I was,
I wouldn't know how much I weighed,
I wouldn't know how many sides there are in a hexagon,
I wouldn't know how many days are in the month,
I wouldn't be able to work my calculator.
And I wouldn't be able to play hide-and-seek!

Developing Understanding

Prompting thinking & questioning

Providing opportunities to manipulate, experience and see (use of resources)
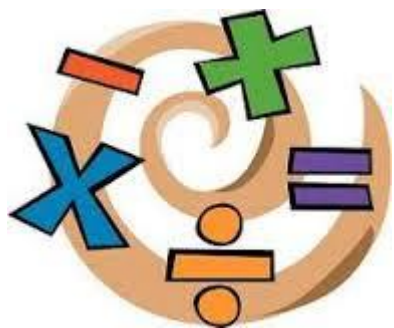
Develop thinking through investigation

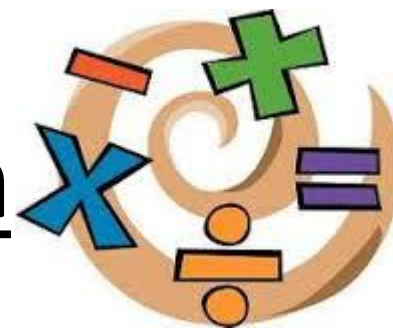Reasoning and making connections

Engaging in talk using mathematical vocabulary.

Encouraging children to make links and generalise.
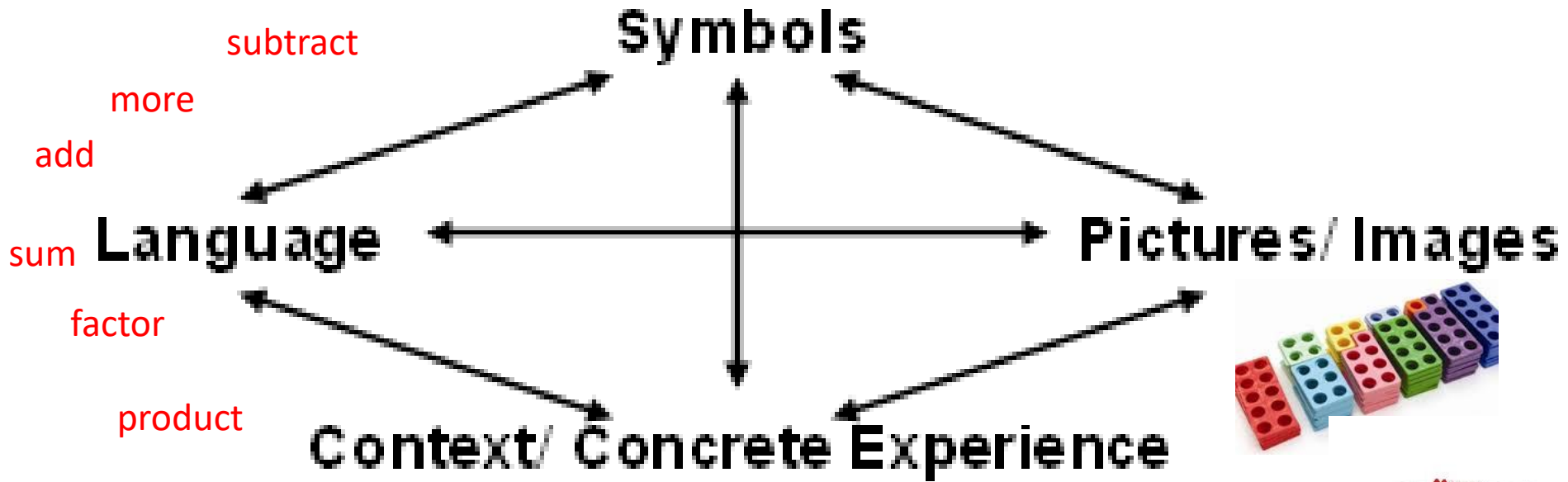
The Maths Curriculum

Children should:

- Become **fluent** in the fundamentals of mathematics, including through varied and frequent practice so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

- **Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations and developing an argument, justification or proof using mathematical language.

- **Solve problems** by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Maths at Dilton

$$= \quad + \quad x \quad \%$$

Symbols

subtract

more

add

sum

factor

product

Language

Pictures/ Images
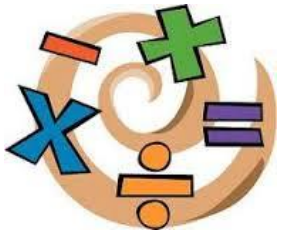
Context/ Concrete Experience

Number Sense!

Children need to understand our number system, starting with counting numbers, building an understanding of how our numbers work and fit together. This includes exploring place value and comparing and ordering numbers then

applying this understanding

in different contexts.
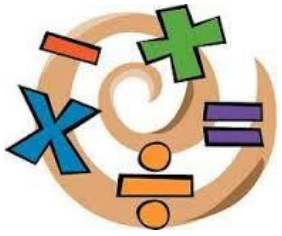
Place Value – The Key

Place value is at the heart of the number system.

We only really have 10 numbers but their place in our value grid makes them what they are.

A secure understanding of this will enable children to use and understand different calculation methods.
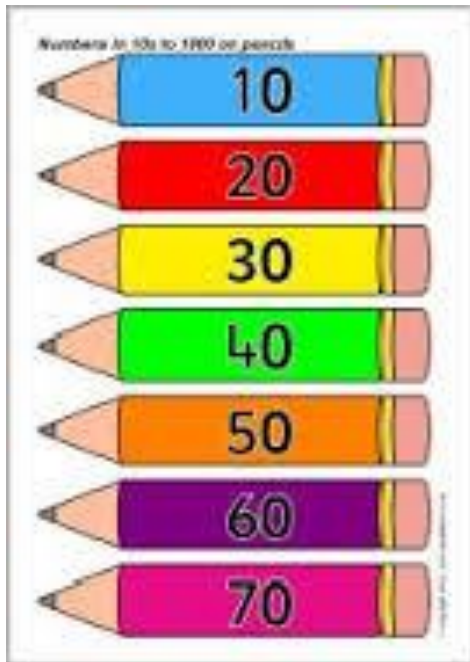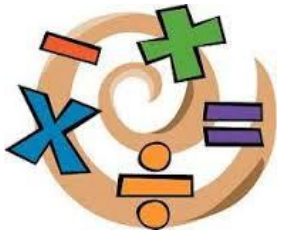
Keep Counting!

Backwards and forwards in 1s, 2s, 5s, 10s, and 100s

Recalling Facts

It is important that children recognise number bonds, different pairs of numbers with the same total.
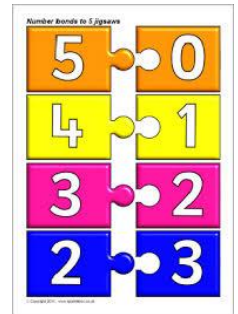
7 + 3

10

6 + 4

6 + 2

8

5 + 3

3 + 2

5

1 + 4

6 + 1

7

3 + 4

6 + 3
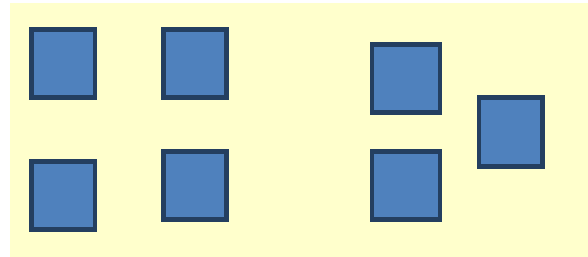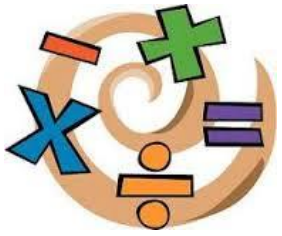
5 + 4

9

6

3 + 3

Addition

- Diennes Apparatus
- Counters/multi link cubes
- Toys
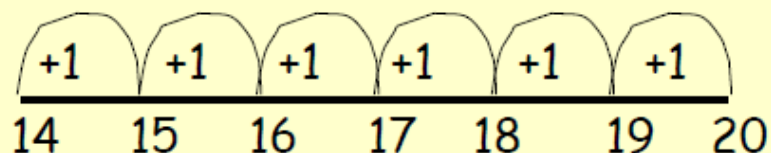- Pebbles

3+4

Addition

Sum

Plus

Total

$14 + 6 = 20$

More than

All together

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

+1   +1   +1   +1   +1   +1

14   15   16   17   18   19   20

Subtraction

Counters
Toys
Pebbles
Dienes Apparatus

5 – 2 =
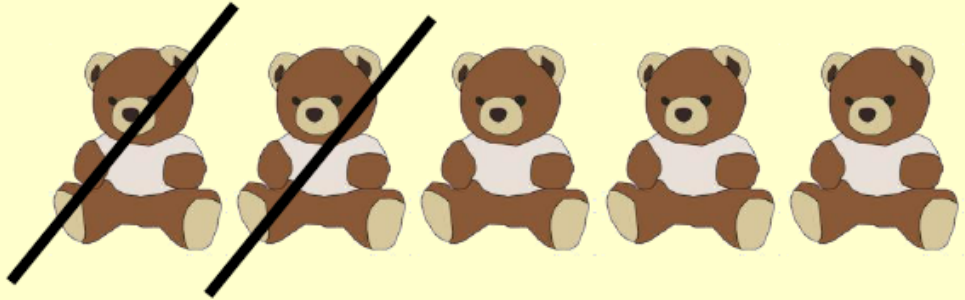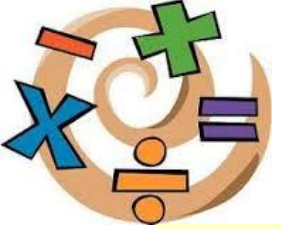
Subtraction

Number Line/Ruler
Number square

36 – 21 = 15

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

47 – 23 = 24

-1   -1   -1   -10   -10

24   25   26   27   37   47

Multiplication

Multiply

$5 \times 3 = 15$

$3+3+3+3+3 = 15$

Array

$5 + 5 = 10$

$5 \times 3 = 15$

$3 + 3 + 3 + 3 + 3 = 15$

5   5   5
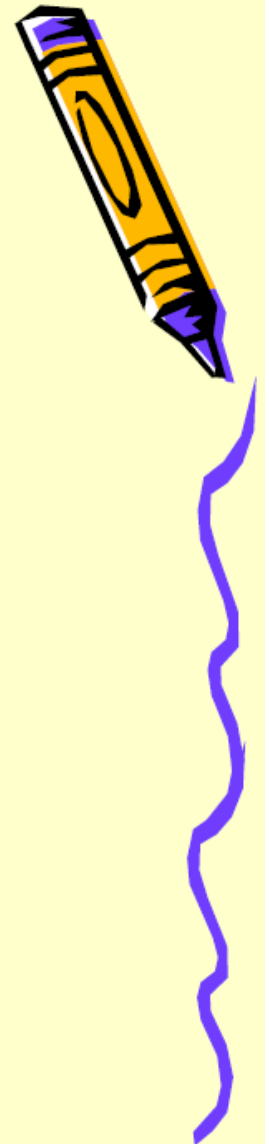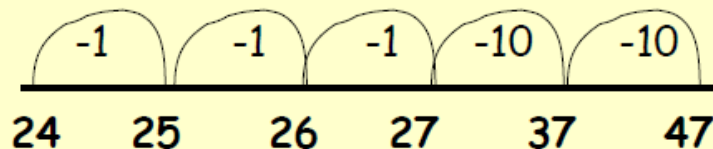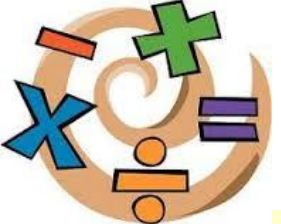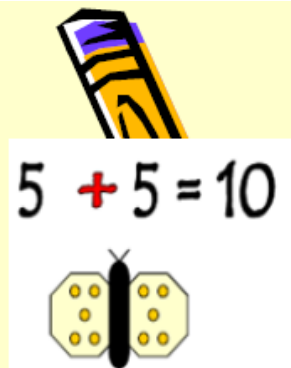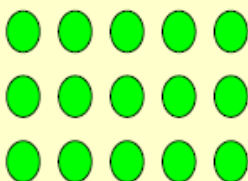
0   5   10   15
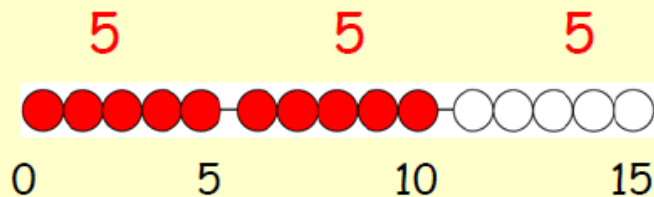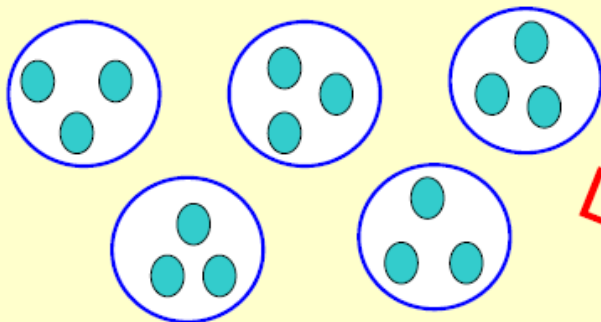
Lots of

$4 \times 5 = 20$ or

$5 \times 4 = 20$

Times

Product

| 1 | 2 | 3 | 4 |

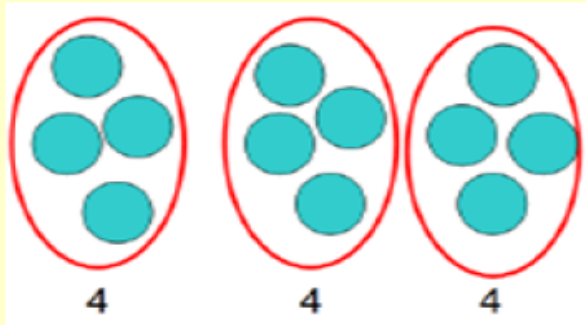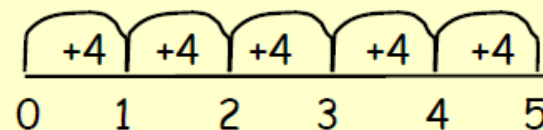0   5   10   15   20
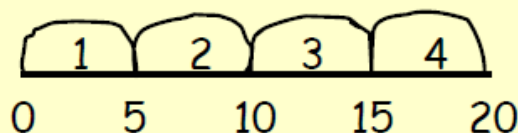
Repeated Addition

Division

Grouping

4   4   4

12 shared between 3 is 4

Introduce the ÷ sign

$$12 ÷ 4 = 3$$

$$20 ÷ 4 = 5$$
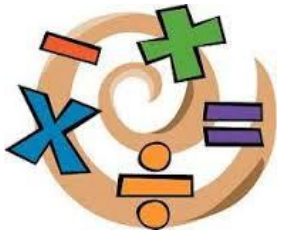

half of 8 is 4

$8 ÷ 2 = 4$

double 4 is 8
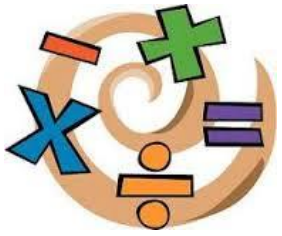
$4 × 2 = 8$
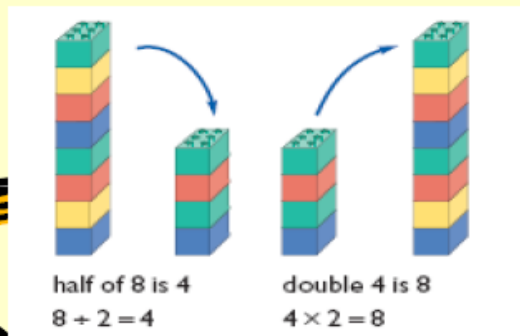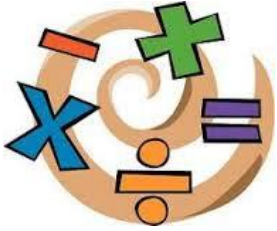
How you can help at home?

- Booklets on website

- KIRFs on website

- A focus on **mental calculations.**

- To use maths in a **real life context.**

- To ask children to **explain** how they have calculated something using a method that suits them.

- Ensure children are confident with their **number bonds.**

Activities

- Draw a line.

- Mark 0 and 10 (or any number range needed). Roll a dice.

- Decide where that number would go and write it in.

- Repeat.

- You can also start at any number and include whatever your child needs.
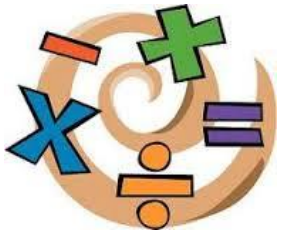
Activities

Inbetweenies

- Start by asking for a 2 digit number.

- Place it at the start of the line.

- Now ask for a higher 2 digit number and place at the end of the line.

- Now keep asking for numbers in between.
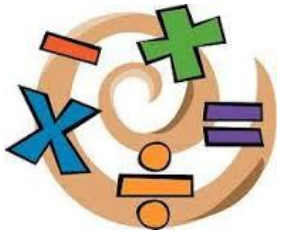
Activities

Tug of War

One player is called "PLUS" The other is called "MINUS" so decide who is who.

Plus moves from left to right and Minus moves from right to left. (The children may be encouraged to think about why that might be.)

Take it in turns to throw the dice and add up the numbers on the two dice. Move that number of places in your direction.

If the counter reaches 1, Minus has won and so, of course if the counter reaches 27, Plus has won.
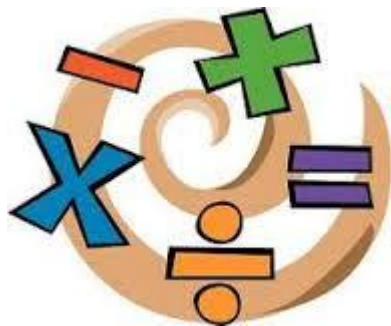
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

Activities

- Which is the odd one out, and why?

5   10   12

Final Thoughts

Be positive about maths.

Give lots of praise and encouragement.

Talk to your child and ask them to explain their thinking.

Numbers are all around us all the time. Notice them and talk about them.