Year 3 and 4 Workshop

Requests from parents ...

- *"I would like to know the complete details of the maths curriculum taught in the class"*

- *"It would be convenient if we could come to know every week which topic the students are learning"*

Homework

- ➔ *Homework provides a window into the classroom.*
- ➔ *It informs parents of the content that was taught in the classroom the week before or that week.*
- ➔ *It gives the students an opportunity to revise the learning at home.*
- ➔ *It is not meant to be NEW or HARD learning.*

Term 1 Mathematics

We have focused on the following topics:

- Whole Number
- Addition and Subtraction
- Yr 3 = 3D Space / Yr 4 = Position

Some important notes ...

End of Stage outcomes - content covered across the 2 years

Some students are not ready

Meeting the students where they at ... teachers select relevant content ...

Concepts can become quite abstract in Stage 2 ... unless the concrete has been understood - difficult to master (e.g. algorithms)

New concepts still start at the concrete before moving to the pictorial and abstract

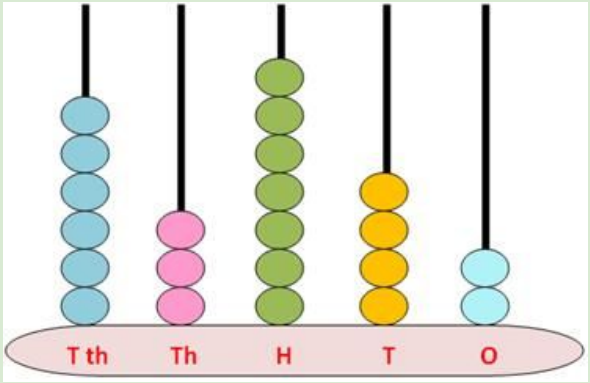
Builds on Stage 1 ... consolidate the concepts with 3 digits in Year 2

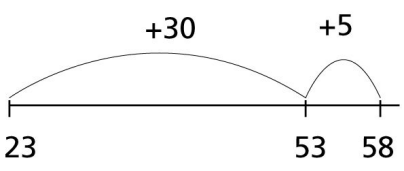
Whole Number

Learning Intention: We are learning to apply place value to read, represent and order numbers of up to five digits.

Key Concepts

1. Reading and writing numbers correctly
2. Place Value = value of a digit as determined by its position in a number
3. Numbers before and after
4. Greater than and less than
5. Ascending and descending order
6. Expanded notation
7. Partitioning - standard and non-standard (e.g. 5020)
8. Rounding





Addition and Subtraction

Learning Intention: We are learning to use mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers.

Key Concepts:

1. Fluency … addition facts and related subtraction facts → aid mental computation
   a. Combinations to 10 and 20 … therefore 100; 200; 1000 etc.
   b. Bridging to 10
   c. Doubles
2. Mental strategies
3. Written strategies - formal algorithm
4. Choose and apply efficient strategies
5. Inverse operations
6. Money - calculating change mentally
7. Estimation

Requests from parents ...

- *"I just want to hear the method of teaching addition and subtraction"*
- *"How has it changed since I was at school?"*
- *"4 corners task"*
- *"Split and jump strategies in subtraction up to 5 digits"*
- *"Compensation"*

Mental Strategies

Don't need to know them all ...
Which one will work best with the numbers provided ...

Jump Strategy

823 + 56 =

Mental Strategies

Becomes harder when the decade is crossed ...

Split Strategy

823 + 56 =

Mental Strategies

Only works for some numbers ...
Much harder with subtraction for children ...

Compensation Strategy

63 + 29 =

Mental Strategies

Using patterns to extend number facts

5 - 2
50 - 20
500 - 200

Mental Strategies

Bridging the decades

34 + 26

Formal Algorithm

Students need to have place value under control and a strong understanding of our Base 10 system.

Introduced and taught using concrete materials.

Addition

Formal Algorithm

Subtraction

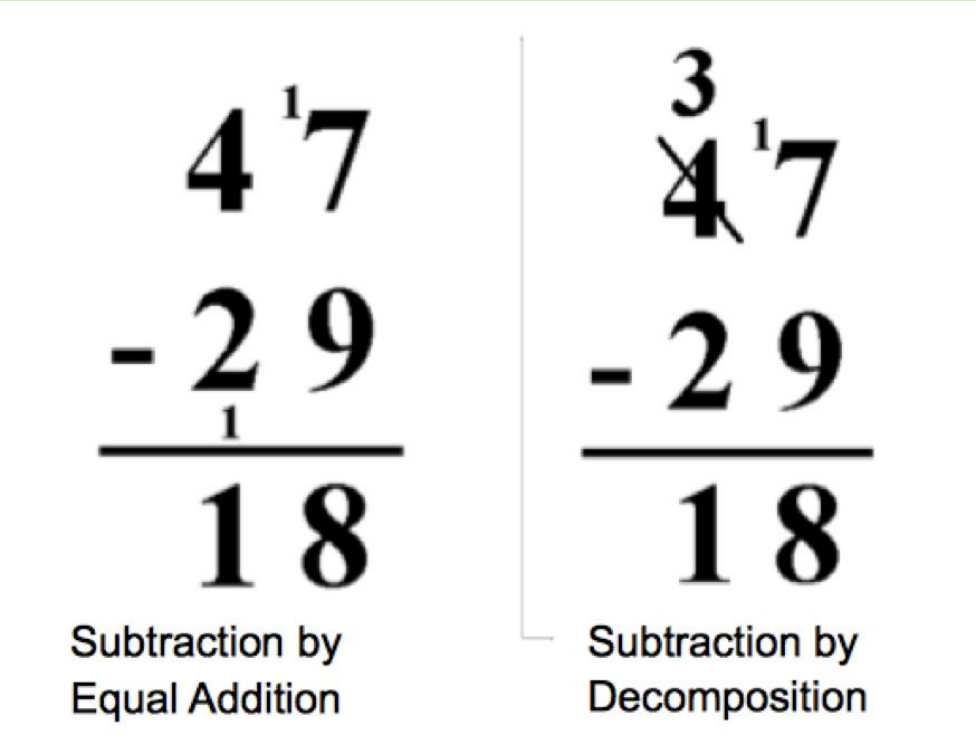
Could spend a whole night just on teaching children how to teach subtraction using the formal algorithm

Formal Algorithm - Subtraction

Borrow and pay back

Not wrong

Just not the way we teach in schools



Formal Algorithm - Subtraction

$$\begin{array}{r} 300 \\ -\ 134 \\ \hline \end{array}$$

Requests from parents …

- *"How do I simplify Maths for children who have difficulties learning and comprehending?"*

REAL LIFE MATHEMATICS! Make it fun and relevant …

- *Shopping*
- *Spending and counting money*
- *Cooking - measuring, counting cups, fractions*
- *Reading signs - talk about what they mean*
- *Telling the time*

Practice! Practice! Practice! Build fluency … flexibility with numbers.

Addition and Subtraction Activity

Equipment - Dice (could use 2 to make the numbers bigger)

Race to 100 (or 50 or 1000)

Race to 0 (from 100 or 50 or 1000)

** Discussion around 'efficient' strategies ... need for fluency

Addition and Subtraction Activity - "Close Call"

Equipment - Pack of cards (remove 10s and picture cards)

Challenge your child to create sums as close to 100 as they can!

1. Shuffle and deal each play 6 cards
2. Each play selects 4 of their cards and creates two 2-digit numbers from them
3. The player with the numbers closest to 100 without going over wins the point

Think about all possible sums ... learn common patterns in addition as they play.

Talk through the game with your child ... ask them what they're thinking as they select cards and make discoveries together!

Addition and Subtraction Games

Lots of Maths board games available ... but ones you might have at home:

Monopoly

Yahtzee

Game of Life

Darts

Mastermind - *problem solving and strategy*

** *Discussion around 'efficient' strategies ... need for fluency*

Requests from parents ...

- *Money*
- *Time*
- *Division*

Feedback

- ➔ *Did you find tonight's information evening helpful?*
- ➔ *Would you attend another Numeracy information evening?*
- ➔ *What topic would you like to receive more information about?*