Maths Guidance for Adults Year 2 w/c 13th July 2020

Addition and Subtraction: Calculation Strategies within 10

These short videos are intended to provide your pupils with interactive lessons while they are learning from home. This week's learning is consolidation and practice which aids confidence and retrieval and helps build firm foundations for moving on to future areas of mathematics. It is important that pupils experience these in the suggested order. They have been designed to be a coherent sequence of learning which builds on previous understanding and exemplify a teaching for mastery approach which is the approach adopted at St Teresa's.

General features of a teaching for mastery approach, which can be found within these lessons:

- ***Stem sentences*** which promote precise mathematical vocabulary and generalisations for all pupils. Please ensure your child says these sentences aloud.
- ***Representations*** which are carefully chosen and can be concrete,(physical equipment) iconic (pictures of real objects), or abstract (symbols, digits, numbers and signs) and that move between the three
- ***Opportunities for deepening understanding for all pupils*** - using small steps of learning enables pupils to learn together and gain deep conceptual understanding
- ***Independent practice and retrieval*** – encourage your child to complete any practice tasks. This gives them the opportunity to put their new understanding into practice; a key feature of embedding into memory. They are revisited at the beginning of the next session.

Lesson 1
https://www.youtube.com/watch?v=qctuPMaAd4c&list=PLQqF8sn28L9wsQ8csk9Ymc56zJDkrH2hl&index=2&t=0s

The commutative law of addition using aggregation

Using an aggregation context (combining two or more groups), such as adding the number of two adult cats and four kittens, children are encouraged to write an equation to represent how many cats there are altogether. Attention is drawn to how we can write the addends (value of each group) in either order, but we still have six cats altogether.

Lesson 2
https://www.youtube.com/watch?v=yQ-oToomX48&list=PLQqF8sn28L9wsQ8csk9Ymc56zJDkrH2hl&index=2

The commutative law of addition using augmentation

Using the structure of augmentation (starting with a fixed value then increasing that v alue) through the predefined order of the 'first…, then…, now…', children will notice that when you change the order of the addends the sum remains the same. They use the generalised statement: 'We can change the order of the addends, the sum remains the same.'

Lesson 3
https://www.youtube.com/watch?v=QYMcSkDpWw8&list=PLQqF8sn28L9wsQ8csk9Ymc56zJDkrH2hl&index=3

Measures contexts to show the commutative law of addition

Through looking at measures contexts, children are encouraged to use the generalised statement from the previous lesson. This deepens understanding of the maths where the 'ones' can't be seen as easily - cardinality isn't visible. They explore pairs of expressions that are equivalent - where they have the same addends but are written in a different order.

Lesson 4

https://www.youtube.com/watch?v=tmHRkDHWm-E&list=PLQqF8sn28L9wsQ8csk9Ymc56zJDkrH2hl&index=4

Embedding understanding of equivalent expressions

This lesson reviews some of the equations of the form a + b = b + a. The emphasis is on the fact that there is an expression on both sides of the '=' sign encouraging the children to see that an equation does not always read as finding a solution to a calculation and embeds the understanding that = symbol actuals means 'is equal to' and does not signify 'an answer'.

Lesson 5

https://www.youtube.com/watch?v=qlwMWK7_tOg&list=PLQqF8sn28L9wsQ8csk9Ymc56zJDkrH2hl&index=5

Ten can be partitioned into pairs of numbers that sum to ten

Numberblock characters land on the moon and children are encouraged to look at the composition of 10. Different representations are used to support children to build fluency and practise with pairs of numbers that sum to 10, such as the part-part-whole diagram and the tens frame. Reference is once again made to the fact that: 'We can change the order of the addends, the sum remains the same.' So if 7 + 3 = 10 then 3 + 7 must also equal 10.