Guidance for teachers – Lower KS2 Fractions

Lessons 1-5 Preparing for fractions: The part-whole relationship

These short videos are intended to provide your pupils with interactive lessons while they are learning from home. You can choose how regularly you set them for your class. Some of the learning might be consolidation and practice which aids confidence and retrieval and helps build firm foundations for moving onto future areas of mathematics. It is important that pupils experience these in the suggested order. The lessons provide a thorough review and consolidation of fractions. They have been designed to be a coherent sequence of learning which builds on previous understanding and exemplifies a teaching for mastery approach.

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
- ***Representations*** which are carefully chosen and can be concrete, iconic or abstract, 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*** - you could ask the children to send you their practice activities so that you can check understanding. You could also set supplementary activities to extend practice and provide some fluency practice with multiplication facts.

Lesson 1 Pupils begin to explore the whole and part relationship in familiar contexts. It moves from an area model using a map, to a linear model using a journey and then to a quantity context. The stem sentence is **'If ___ is the whole, then ___ is part of the whole'**.

Lesson 2 Pupils continue to explore the whole and part relationship and generalise that a part is always smaller than the whole but that the whole can change. It is important that the children understand that there are many ways to define a whole and only when this is done is it possible to define a part.

Lesson 3 This lesson focuses on the concept of 'equal' and 'unequal' parts and aims to address some potential misconceptions related to this. The area model of representation is presented to children as a vehicle to master this.

Lesson 4 Pupils embed the concept of equal parts and unequal parts and move to seeing examples of this within a linear model with paper strips and then on a number line. This lesson finishes with the important part that if we know the size and total number of equal parts, we can replicate the whole.

Lesson 5 Pupils continue to look at equal and unequal parts. Attention is drawn to the fact that equal-sized parts do not have to look the same.

These lessons have been planned using the NCETM Mastery PD materials. Please access the original materials here.

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