Guidance for teachers – Upper KS2 Fractions

Lessons 7–11 Finding equivalent fractions and simplifying fractions

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. 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 7 The lesson starts with a review the task that was set at the end of the previous lesson. There is then a focus of looking at families of fractions, first with unit factions looking at the vertical relationship that is kept the same linking these to knowledge of the times tables, and then looking at non-unit fractions looking at the horizontal relationship as well.

Lesson 8 There is a review of the task – completing families of fractions that are not in an order where the relationship is perhaps trickier to see. Missing-number questions are then explored with children being encouraged to look for the relationship between the numerator and the denominators.

Lesson 9 This lesson provides lots of examples for children to practise applying their understanding of equivalent fractions to find numerators and denominators and to reason about how they might work out what they could be from all the information that has been provided.

Lesson 10 A revision of language of 'factors' and 'multiples' is the focus of this lesson. In the Mastery PD Materials, it is covered in detail in Spine 2 Segment 2.21 *Factors, multiples, prime numbers and composite numbers.* Children are reminded of the definitions as these are terms that will be used later when simplifying fractions.

Lesson 11 The term fraction in its 'simplest form' is introduced. There might be a danger that children will overgeneralise and think that only unit factions are where fractions are expressed in their simplest term. This will be considered at the end of the lesson and addressed in detail in the next lesson.

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

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