

## Guidance for teachers – Lower KS2 Fractions

### Lessons 6-10 Preparing for fractions: The part-whole relationship

These short videos are intended to provide your pupils with interactive lessons whilst 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 exemplify 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 6** - Children will begin to understand that the size of the parts of the whole can be compared when the whole is defined. This lesson focuses on the area model (map), the linear model (journey) and the cardinal model (counters) before moving onto the context of measures.

**Lesson 7** - Pupils will move onto understanding that the same amount makes a different size part of the whole relative to the size of the whole. These are exemplified in a variety of examples and with the generalisation '**As the whole increases in size and the size of the selected part remains the same, each part becomes smaller in relation to the whole**'.

**Lesson 8** - The tricky concept from the previous lesson is built upon, but this time, demonstrating that 'more than one' in the cardinal models, can represent equal sized parts in different wholes.

**Lesson 9** - In this lesson, the children consider, if we know one part of the whole what could the whole look like if all the parts are identical? This is often something children have limited practice of and is important to ensure a deep understanding of the part-whole relationship. It is vital they know the size of the whole in order to create these.

**Lesson 10** - Once confident with the concept of building wholes from parts using the area model, this lesson gives the opportunity for children to iterate fractions in different contexts and addresses some possible misconceptions that could occur.

These lessons have been planned from the NCETM Mastery PD materials. Please access the original materials [here](#).

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