

Guidance for teachers – Upper KS2 Fractions

3.7 Finding equivalent fractions and simplifying fractions

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 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](#).

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 develop fluency in counting in steps of 2, 5 and 10.

Lesson 17 - This lesson looks at simplifying an improper fraction by first converting it to a mixed number then simplifying the fractional part only. There is then the opportunity to compare this method to the one that is used in the previous lesson, where an improper fraction is converted to its simplest form first and then expressed as a mixed number.

Lesson 18 - There is a recap on multiplying fractions by whole numbers. The generalisation is then used where you multiply the numerator by the whole number and keep the denominator the same. Children are encouraged to consider how they can express the resulting fraction in its simplest form.

Lesson 19 - This lesson provides lots of opportunities for children to simplify fractions and to consider the context as well as the efficiency of the strategy used.

Lesson 20 - This is the last lesson focussing on finding equivalent fractions and simplifying fractions. There is the opportunity to reflect on what does equivalent mean in the context of fractions, using the area model as well as the number line. The children are encouraged to make connections to all the learning over the last 19 lessons and to summarise what they have learnt.

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

With thanks to Adrian Cannell (North West Three Maths Hub), Celia Dunne (London North East Maths Hub), Imogen Furlong (North West One Maths Hub), Kate Mole (London South West Maths Hub).