

Overview

Fractions, decimals and percentages are frequent areas of difficulty in mathematics for primary school pupils. Many teachers find them challenging to teach and pupils often have limited or only partially developed conceptual understanding of the topics. A major reason children struggle with fractions, decimals and percentages is the variety of contexts and representations in which they appear – for example, as areas, as sets, on number lines, as a result of a division problem and in relation to measurements.

Schofield & Sims Fractions, Decimals and Percentages is a structured whole-school programme designed to help pupils develop a deep, secure and adaptable understanding of these topics. The series consists of six pupil books and six teacher's guides, one for each primary school year.

Each unit of the programme addresses a single learning objective. The teacher's guides provide detailed teaching notes with accompanying graphics to use in lessons. The pupil books provide a summary of the learning objective and a set of related practice questions that increase in difficulty. This allows you, the teacher or adult helper, to introduce and teach a particular concept and then to provide appropriate intelligent practice which gradually leads children towards more complex representations and varied contexts.

Supporting a mastery approach, all pupils are encouraged to move at the same pace through the units and are given the same opportunity to fully understand the concept being taught. Depth of learning is emphasised over speed of learning and the pupils should have a solid understanding of the content of each unit before moving on to new material. Downloadable **Go deeper** extension resources help to cement pupils' understanding of the concepts that have been taught. The series also provides ongoing and integrated assessment throughout.

Prerequisites for Fractions 5

Before beginning **Fractions 5** the pupils should:

- have an understanding of unit and non-unit fractions and how to compare, add and subtract fractions with the same denominator
- be familiar with mixed numbers and appreciate that improper fractions are greater than one whole
- have an understanding of decimals with up to two decimal places and know their relationship to tenths and hundredths.

Each year of the programme, however, begins with revision to ensure that the pupils understand the necessary ideas to move forward. The pupils can be given **Fractions 4** first if they require further practice to build their confidence and their understanding.

The focus in Year 5 is on the following areas: comparing and ordering fractions, equivalent fractions, mixed numbers, improper fractions, percentages, multiplying proper fractions and mixed numbers by whole numbers, writing decimals as fractions, rounding decimals to one decimal place, and problem solving.

Fractions 5 and the National Curriculum

Fractions 5 and its related **Teacher's Guide** match the statutory requirements for Year 5 for 'Fractions (including decimals and percentages)' in the National Curriculum. The 12 statutory requirements are listed on the following page. They have been coded for ease of reference. For example, Y5/F1 refers to the first fractions requirement in Year 5.