

Prerequisites for Fractions 4

Before beginning **Fractions 4** the pupils should have an understanding of both unit and non-unit fractions. Each year of the programme, however, begins with revision to ensure that the pupils understand the necessary ideas to move forward. The first column in the chart on page 5, labelled 'Y3 Revision', shows the units that revise Year 3 material. The pupils can be given **Fractions 3** first if they require further practice to build their confidence and their understanding.

The focus in Year 4 is on the following areas: families of equivalent fractions, counting in hundredths, dividing one- and two-digit numbers by ten or one hundred, simple decimal equivalents, rounding decimals to the nearest whole number, comparing decimals with up to two decimal places, and problem solving.

Fractions 4 Teacher's Guide

The **Fractions 4 Teacher's Guide** contains everything you need to teach the National Curriculum requirements for 'Fractions' in Year 4. There are 18 corresponding units in the teacher's guide and pupil book, six for each term.

Using the Teacher's notes

In this teacher's guide you will find **Teacher's notes** for each unit (pages 12 to 47). These include a detailed lesson plan with accompanying graphics that can be used to demonstrate the learning objective before the pupils begin the activities in the pupil book. The graphics are visual prompts for the class and can be used in a variety of ways. They are all available as interactive PowerPoint® presentations (free to download from the Schofield & Sims website). Alternatively, the graphics could be presented on a projector, or photocopied and used as pupil handouts, or used as a guide when drawing your own visual prompts. The lesson plans can be easily adapted to suit your classroom. Below is an example lesson from this teacher's guide, alongside the corresponding slides from the **Fractions 4 PowerPoint®** presentation.

TEACHER'S NOTES UNIT 1
Schofield & Sims
Fractions, Decimals and Percentages
Fractions 4 Teacher's Guide Unit 1

Understand the role of the numerator and denominator

Starting point

Show graphic A without showing the notation below it. Ask:

- How many equal parts has each of these rectangles been split into? [6]
- What fraction of the first rectangle is shaded? [$\frac{1}{6}$] Establish that each small square is $\frac{1}{6}$ of the rectangle and that one out of six equal parts is shaded.
- Let's find out what fraction of each of the other shapes is shaded. How many sixths are shaded in the second rectangle? [2]
- How do we write this as a fraction? [$\frac{2}{6}$] Demonstrate writing $\frac{2}{6}$ on the board.

Continue in the same way for the rest of the rectangles and reveal the fraction notation.

Now ask:

- What does the denominator (the bottom number) tell us? [It tells us how many equal parts the whole is split into.]
- What does the numerator (the top number) tell us? [It tells us how many of these equal parts are shaded.]

Show graphic B – the number line split into eighths. Ask the pupils to identify what fraction the arrow is pointing to. [$\frac{3}{8}$]

Key point: The denominator (the bottom number) shows how many equal parts the whole is split into. The numerator (the top number) shows how many of these parts are being described.

Spot the mistake

Ask:

- The statement says ' $\frac{2}{5}$ is shaded'. Is this true? [no]
- What is the mistake? [The denominator should show the number of parts altogether rather than the number of parts that are not shaded.]
- What is the correct answer? [$\frac{3}{5}$]
- What fraction of the shape is not shaded? [$\frac{3}{5}$]

Good to go?

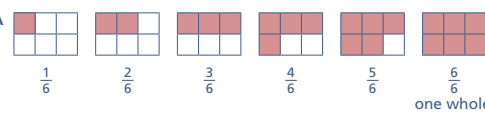
Answers: a) $\frac{1}{4}$ b) $\frac{3}{8}$ c) $\frac{3}{8}$ d) $\frac{4}{5}$

Pupil book practice Pages 4 and 5

In the early units the pupils will be revising unit and non-unit fractions. They will also familiarise themselves with common vocabulary such as 'fraction', 'equal part', 'numerator' and 'denominator'. The questions include fractions as areas of shapes, on number lines and simple unit fractions as parts of sets. The Challenge questions include some problems with measures, for example, units of time and mass.

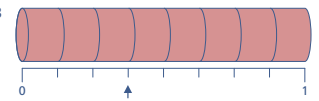
Starting point

A



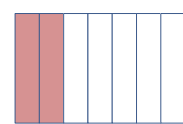
$\frac{1}{6}$ $\frac{2}{6}$ $\frac{3}{6}$ $\frac{4}{6}$ $\frac{5}{6}$ $\frac{6}{6}$ one whole

B



← numerator
 ← denominator

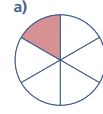
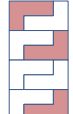


Spot the mistake



$\frac{2}{5}$ is shaded.

Good to go?

What fraction of each shape or set is shaded?

a)  b)  c)  d) 

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