Subtracting fractions

National curriculum attainment target

• Subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]

Prerequisites for learning

Pupils need to:

• add fractions within one whole

Vocabulary

numerator, denominator, whole

Lesson objective

• Subtract fractions within one whole

Success criteria

Pupils can:

- write the fraction for the whole
- identify the fraction being subtracted
- work out the fraction that is left



Getting Started

• Choose an activity from Number - Fractions.



Teach

Resources

mini whiteboard, pen and eraser (per child), interlocking cubes (per class) (optional)

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- Display the Snake Fraction interactive showing a snake made up of 4 yellow parts and 2 red parts.
- Say: Look at this snake and tell me something about it using fractions.
- Share children's ideas. Record any important information such as sixths: $\frac{2}{6}$ and $\frac{4}{6}$.
- Ask: What fraction can I write to describe the whole snake?
- \bullet Establish that the whole snake is $\frac{6}{6}$. Say: Six-sixths is the same as one whole.
- Say: Watch what I am going to do. Drag the two red parts of the snake away.
- Ask: What subtraction calculation can I write for what I did to the snake? Share children's ideas. Some children may suggest 6 2 = 4. Record this on the board.
- Say: Six subtract two is four but I want to write my calculation as subtracting fractions. So it is six-sixths subtract two-sixths equals four-sixths. Record this on the board as you say it.
- Display the Snake Fraction interactive showing a snake made up of 5 blue parts and 1 orange part.
- Ask: Why does the calculation start with six-sixths?
- Drag the orange part of the snake away.
- Ask: Can you write the fraction subtraction for this snake? Share children's ideas and record $\frac{6}{6} \frac{1}{6} = \frac{5}{6}$ on the board.
- Display the Snake Fraction interactive showing a snake made up of 3 yellow parts and 5 red parts, then a snake made up of 6 green parts and 2 blue parts.
- Repeat for these snakes. First establish that the whole is eight-eighths.
- Say: Can you tell me another fraction subtraction that starts with eight-eighths?



Use interlocking cubes to show what is happening.

Individualised Learning Pupil Book 3B - Page 49: Subtracting fractions Refer to Activity 2 from the Resources: interlocking cubes of two different Learning activities on page 320. colours (per child), coloured pencils (per child) **Progress Guide 3** – Support, Year 3, Unit 8, Week 2, Lesson 2: Subtracting snakes - Extension, Year 3, Unit 8, Week 2, Lesson 2: Subtracting beyond 1 whole Plenary • Say: Fractions can be added and subtracted. • Display: Slide 1. • Ask: What could be the addition fraction calculation for this snake? • Share children's ideas. Record $\frac{9}{14} + \frac{5}{14} = \frac{14}{14}$ and $\frac{5}{14} + \frac{9}{14} = \frac{14}{14}$ on the board. • Ask: What could be the subtraction calculation for the snake?

• Share children's ideas. Record $\frac{14}{14} - \frac{9}{14} = \frac{5}{14}$ and $\frac{14}{14} - \frac{5}{14} = \frac{9}{14}$ on the board.

Overcoming Barriers

• Children will find this challenging if they do not have a strong understanding of one whole and each part being a unitary fraction of it. Practical apparatus, such as interlocking cubes, and the appropriate fraction language, will develop this understanding.