Strengthen Activities

MISCONCEPTION

Children may be unsure of the meaning of numerator and denominator, in particular if the numerator is greater than 1. When using resources, they may find it difficult to identify the fraction bars that they need to use by referring to the denominator.

STRENGTHENING UNDERSTANDING

1. Ask children to draw a fraction bar that represents $\frac{3}{5}$. Ask: *How many parts will it be split into? How many parts are shaded?*
2. Model the fraction using paper strips, number lines, rods and bar models. Discuss what is the same and what is different about each representation.
3. Ask: *What is a fraction that is smaller than $\frac{1}{2}$? How do you know? Are there others?* Discuss what happens to the numerator and denominator when finding a fraction smaller than $\frac{1}{2}$.

ASSESSMENT CHECKPOINT

Can children represent the fraction $\frac{5}{8}$ using two different representations and explain what it means?

RESOURCES

Paper strips, number lines, coloured rods

MISCONCEPTION

Some children may think that when comparing fractions, they must compare both the numerator and the denominator; for example, that $\frac{2}{8} > \frac{1}{2}$ since 2 > 1 and 8 > 2.

STRENGTHENING UNDERSTANDING

1. Provide fraction strips showing eighths and halves. Use the strips to represent $\frac{1}{8}$ and $\frac{1}{2}$.
2. Ask: *Which fraction is the biggest? How do you know? What does the denominator of each fraction show? Does the number of parts matter when comparing fractions?*
3. Repeat the activity using $\frac{3}{8}$ and $\frac{1}{2}$, then $\frac{6}{8}$ and $\frac{1}{2}$, then $\frac{7}{8}$ and $\frac{1}{2}$, and finally $\frac{4}{8}$ and $\frac{1}{2}$. With each pair, compare the denominators and then the numerators.

ASSESSMENT CHECKPOINT

Can children decide which fraction is bigger, $\frac{5}{8}$ or $\frac{3}{4}$, and explain how they know?

RESOURCES

Fraction strips, paper strips

MISCONCEPTION

Children may assume that, for example, all quarters are the same. They do not understand that the size of the whole determines the size of the fractional part.

STRENGTHENING UNDERSTANDING

1. Show children a square with sides of 4 cm and a square with sides of 6 cm. Ask: *Which is bigger, $\frac{1}{4}$ of the 4 cm square, or $\frac{1}{4}$ of the 6 cm square?*
2. Ask: *Which is bigger, $\frac{1}{4}$ of a 2 litre bottle or $\frac{1}{4}$ of a 500 ml bottle?* Discuss how the size of the whole affects the size of the fraction.
3. Ask: *Which is greater, $\frac{1}{4}$ or $\frac{3}{5}$? How do you know? What information have you looked at to decide?* Discuss the difference between $\frac{1}{4}$ of 20 and $\frac{3}{5}$ of 5.

ASSESSMENT CHECKPOINT

Can children identify which is bigger, $\frac{3}{4}$ of a 400 g chocolate bar or $\frac{2}{5}$ of a 500 g chocolate bar?

RESOURCES

Fraction strips, bottles