Mixed operation problems

Curriculum objectives
- To solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.

You will need
1. Check
Oral and mental starter
57 Mystery number

2. Assess
'A sporting problem'

3. Further practice
Oral and mental starter
46 It's all in a word

Most children should be able to work out which operations to use to solve a practical problem.

Some children will not have made such progress and will require extra practice identifying the correct operation needed to solve a practical problem.

1. Check

57 Mystery number

Use the oral and mental starter to check the children's understanding of mathematical vocabulary and as a basis to discuss problem solving and unravelling information. Less confident learners will need reminding about some of the vocabulary.

- *Explain to me what this word in this problem means. Tell me the calculation you used. What strategy did you use? How will you check your answer? How would estimating help you to be accurate?*

2. Assess

Children should read photocopiable page 251 'A sporting problem' very carefully and decide on a way of working. Observe the choices that they make and the accuracy of their calculations. Confident learners will be able to comprehend the problem and make appropriate calculations to solve it. Other may have difficulty deciding on the important information and ways in which to translate the problem into a calculation. Record the outcomes.

3. Further practice

Use the oral and mental starter to practise the vocabulary of number and calculation and then encourage children to write their own word problems using the given vocabulary. In this way they will have practice in understanding how such problems are constructed.

Using fraction and percentage equivalents to solve problems

Curriculum objectives
- To solve problems which require knowing percentage and decimal equivalents of ½, ¼, ⅕, ⅖, ⅘ and those fractions with a denominator of a multiple of 10 or 25.

You will need
1. Check
Oral and mental starter
51 Fraction problems

2. Assess
'Sale at Great Gardens'

3. Further practice
Oral and mental starter
50 Percentage pairs

Photocopiable sheets
'Match the percentage pair'

Most children should be able to convert between fractions and percentages to solve simple problems.

Some children will not have made such progress and will require more practice in recognising or calculating equivalents and then using these to solve problems.

1. Check

51 Fraction problems

Add some simple percentage problems into the oral and mental starter and use it to establish how fractions and percentages are part of daily life and to provide children with the opportunity to solve such problems.

- *What is the equivalent percentage/fraction of this amount? How do you know? What knowledge do you use to solve this problem? Do you use fractions or percentages?*

2. Assess

As the children solve the questions on photocopiable page 252 'Sale at Great Gardens', observe how they make connections between fractions and percentages and how they calculate. Most children will understand how to calculate a sale price but some may forget to subtract the reduction from the original price. Record the outcomes.

3. Further practice

The oral and mental starter and photocopiable page will give children more practice in working out the equivalent percentages and fractions based on multiples of 10 and 100.