



Strengthen Activities

MISCONCEPTION

For addition and subtraction calculations, children may see each calculation as a new question and therefore use an inefficient strategy to find the solution rather than build on what they already know.

STRENGTHENING UNDERSTANDING

1. Ask children to use a large part-whole model to represent $34 + 23 = 57$ using Base 10 equipment. Then ask them to create the calculation as a number sentence, using cards 34, +, -, 23, = and 57.
2. Ask children if the part-whole model can help them find other linked calculations, identifying how the part-whole model could also show $23 + 34 = 57$, $57 - 34 = 23$ and $57 - 23 = 34$. If children struggle to see the linked calculations, remove a part of the model, and ask them what question it now represents.
3. Can children use this to solve $33 + 34$? Add a ten rod to the 23. Identify that a ten also needs to be added to the whole. Repeat, adding or taking away tens or ones from different parts of the calculation. Record the linked calculation and discuss how the base fact helped work out the new calculation.

ASSESSMENT CHECKPOINT

Give children the calculation $21 + 41 = 62$. Can they identify at least five linked calculations?

RESOURCES

Base 10 equipment, large part-whole models, blank cards

MISCONCEPTION

When solving missing number calculations, children may recognise the numbers, but may ignore the context and so use the wrong operation.

STRENGTHENING UNDERSTANDING

1. Write $23 + ? = 40$ and explain that both sides need to balance. Ask children to use weighted Base 10 equipment to put 40 in one side of a balance scale, and 23 and paper labelled '+' and '?' in the other.
2. Discuss that we need to work out how much to add to make our balance equal 40. Represent the problem using a part-whole model. Can children find the missing number? Invite them to check by replacing the '+' and '?' card with their answer made out of Base 10 equipment.
3. Ask children to use the balance scales and a part-whole model to solve $48 - ? = 42$, identifying that we need to remove some of the Base 10 equipment to solve this.

ASSESSMENT CHECKPOINT

Revisit Q3 from Practice Book p36. Can children identify the missing numbers independently?

RESOURCES

Balance scales, Base 10 equipment where a 10 rod weighs the same as ten 1 cubes, paper labels, Practice Book p36

MISCONCEPTION

When solving worded problems, children may mix up the operations needed to solve different problems.

STRENGTHENING UNDERSTANDING

1. Show four bags with two cubes in, each labelled '2 cubes'. Ask children to work out, without counting, how many cubes. Discuss how to solve the problem, identifying that it is a multiplication with the linked number sentence $4 \times 2 = ?$ Show how this could be represented using a bar model.
2. Show two boxes with five cubes in, each labelled '5 cubes' and a bag of seven cubes. Explain that you have 25 cubes all together, some in the bags and boxes and the rest in the mystery bag. Identify how to work out how many cubes in the mystery bag and represent it using a bar model.
3. In pairs, invite children to solve Q3 from Practice Book p54, using cubes to represent the sweets, and recording the calculation that they need to carry out. Can they use a bar model to help them?

ASSESSMENT CHECKPOINT

Ask children to independently revisit Q3 and Q4 from the End of unit check on Textbook p76–77.

RESOURCES

Cubes, bags, boxes, Practice Book p54, Textbook p76–77