

**Learning objectives**

- Development matters (Calculating): Know that a group of things changes in quantity when something is added or taken away.
- ELG: Begin to use the vocabulary involved in adding and subtracting.

**Resources**

'Counting back and up' Notebook file; photocopiable page 96 'Combining two groups'; ten counting toys and an empty margarine pot for each pair.


**Links to other ELGs****PD**

Handle tools, objects, construction and malleable materials safely and with increasing control.

- When making models, the children count how many pieces there are, then check how many items have been used by counting up from what is left.

**Whiteboard tools**

Use the Eraser from the Pen tray to reveal the hidden numbers in the whole-class activity.

 Pen tray

 Select tool

 Undo button

# How many have gone?

**Introduction**

Open the 'Counting back and up' Notebook file and press on the button next to Lesson 23 to go to page 4. Drag and drop six shapes into the left-hand circle and ask: *How many shapes are there?* Now drag two of these into the right-hand circle. Say: *How many shapes have I taken away? How can we find out what is left?* Agree that the children can count these. Say together: *Six take away two leaves four.* Repeat for other quantities between three and ten.

**Adult-focused whole-class activity**

- Go to page 5 where the left-hand set circle contains a hidden number.
- Reveal the hidden number (3) using the Eraser from the Pen tray. Now drag and drop one object into the right-hand circle.
- Say: *How many were there in this?* (Point to the left-hand circle.) *How many have we taken away?* (Point to the right-hand circle.)
- Explain that in order to find out how many are left, the children can count up from what has been taken away. Suggest that they use their fingers to help them keep track of the count. So, for this example, say: *Two, three. So two are left. Three take away one leaves two.*
- Repeat this, using the other hidden numbers on pages 6 and 7 as starting points. (For example, for page 6 drag three objects into the right-hand circle and count up: *Four, five. So five take away three leaves two.*)
- Extend the activity by using the empty set circles on page 8. Write a chosen number in the left-hand circle and place some objects (a smaller amount) in the right-hand circle. Encourage the children to work out how many are left if you take the second number away from the first.

**Adult-focused whole-class activity**

- Arrange the children to work in pairs. Each pair will need an empty margarine pot, up to ten counting toys, and a copy of photocopiable page 96.
- The children take turns in taking some of the counting toys and counting how many they have, telling their partner the total. They should then hide some of the toys under the margarine pot on one of the circles and place the rest on the other circle. The other child calculates what is hidden by counting up from what they can see to the known total.
- Limit younger or less confident learners to up to six counting toys.
- Challenge older or more confident learners by giving them twelve counting toys.

**Plenary**

- Display page 9 of the Notebook file and tell the children that this time you will simply write the numbers into the set circles. Write 6 in the left-hand circle and 3 in the right-hand one. Say: *There were six cakes on the plate. Three cakes were eaten. How many were left?* Invite the children to find the answer by counting up.
- If necessary, drag and drop the cakes into the circles to check answers or to support younger or less confident learners.
- Repeat for other totals within ten, giving counting toys to children who need them.