

Sums say the answers!

Activity 1

Focus of activity: Using place value to add, e.g. $20 + 4 = 24$.

Working together: conceptual understanding

- Shuffle a set of 10s and 1s place value cards, and place them face down in two piles - 10s and 1s.
- Give each child a bead string.
- Take a 10s card, e.g. 30. Ask children to show this number of beads. Did they remember to count in 10s?
- Take a 1s card, e.g. 5. Ask children to add 5 beads. *How many beads?*
- Record $30 + 5 = 35$. Put the two place value cards together to make 35. *Thirty and five is thirty-five – the sum said the answer!*
- Repeat with other 10s and 1s cards, ending with 10 and a 1s card, e.g. 4. *Ten and four – oh, that’s the only one which hasn’t said the answer. We just need to know the ones with 10.*
- Repeat, but this time don’t ask children to make the numbers on the bead string, but just show and read two cards, e.g. fifty and three. *What is fifty add three? Fifty-three! These are easy sums! We are using place value to add.*

Up for a challenge?

Show me 35 on your bead string. Make 35 with place value cards. Now take away 5. What is left? Remove the 5 card to show 30 is left. Record the subtraction: $35 - 5 = 30$. Repeat with $42 - 2$.

Now it’s the children’s turn:

- Children work in pairs to choose a number from each set and find the total. They use their bead strings to help. They write as many different additions as they can.
- Go round the group and mark their additions as they do them, e.g. initially after three examples. After a while, do children need their bead strings, or can they just say the answer?

S-t-r-e-t-c-h:

If children cope well, ask them to work out the answers to $23 - 3$, $45 - 5$ and $82 - 2$.

Things to remember

Remember that when we add a 10s number and a 1s number, we don’t need to work very hard! We need to listen to the numbers in the sum, and they will tell us the answer! Ask children to close their eyes. Say a place value sum, e.g. *twenty add eight*. They say the answer. Repeat with other place value sums, finally finishing with *ten add five*. *That sum doesn’t say the answer*. Show the addition with a beads string.

You may want to add something that has emerged from the activity. This may refer to misconceptions or mistakes made.

Resources	Outcomes
<ul style="list-style-type: none">• Place value cards (10s and 1s)• 100-bead strings• Addition cards (see child instructions)	<ol style="list-style-type: none">1. Children can use place value to add 10s and 1s, e.g. $20 + 4 = 24$.2. Children begin to use place value to subtract, e.g. $24 - 4 = 20$.

