

Subtracting: Subtract 10 from any 2 digit number

Checking child's skills

Before working on subtracting 10s, you should make sure that the child is confident in adding 10s. Any of the ideas below will work for adding too. It is also worthwhile checking if the child can count backwards – although this is not needed directly to subtract 10, it is a related skill.

It is also worth seeing if the child can already subtract 10 mentally before doing any of the exercises.

When you begin, it may be wise to keep the numbers no bigger than say 30. Then if you need to use Dienes or Numicon to help the child's understanding, there will be a smaller number of pieces, which should be easier for you and clearer for the child.

Numicon/Dienes

Using Numicon pieces or Dienes, etc, ask what number a 10 piece represents. Use the apparatus to represent a 2-digit number. (Eg 26.) Ask the child what number it is.

Ask the child to subtract 10 from the number using the apparatus. (They should remove a 10-piece.)

- What has been subtracted from the number? (10)
- What has happened to the number? (It is 10 less)
- What is the new number? (16)
- Can you write the number? (Especially if the child is weak in writing numbers.)

100 Square (this can be done at the same time as the Numicon activity above)

(If you have a 50- or 30-sheet you could also start with this.)

Find a number on the 100 square and place a counter on it. Ask the child to subtract 10 and place another counter on the new number. They may decide to do this by counting back.

- What number have you landed on?
- What is 10 less than X? Can you write it as a number sentence?

Repeat this by subtracting 10 from the new number and placing another counter. This will help them spot the pattern.

- What do you notice each time?

Highlight that you can subtract 10 easily by looking at the number above. Ensure that the child understands why and that this only works with squares that are 10 across.

When you reach the units, see what the child does.

- Why did you have to stop subtracting 10 when you reached the units?

E.g for 7 – 10, talk about 7 being the lesser number and why this means you can't subtract 10 from it. If the child needs more help, try using concrete objects – eg 7 counters or Numicon.

Place Value

You can link this back to their knowledge of place value and partitioning.

- What is happening to the tens? (they go down 1 ten with each subtraction)
- What is happening to the ones/units? (they stay the same)

Timed Challenge

Once children understand how to subtract 10 from a number quickly, challenge them to see how many subtracting 10 questions they can do in one minute. This can then be used as a quick starter for another session. Make sure that this activity is fun for them and doesn't create anxiety! Eg make sure they can do one fluently, and then challenge them to do two quickly. You could choose numbers by putting a counter on a 100 square, linking to the previous activity.

Subtract by 10 game on 100 square

You will need a blank die (or two) and counters

Using a blank die, make a die with faces

- -10,
- subtract 10,
- take away 10 twice,
- blank,
- add ten, and
- roll again.

The first time you play, both start at 100 so that you go down the 10s column and win by getting to 0. The next time, make it more interesting by starting in a number in the nineties, with the goal being to reach the units row.

You can give the child more chance to win by making one die each, with the child's having 'take away 10 three times' instead of blank – or with a similar change.