Removing scaffolding – Primary Maths

By Debra Ridley

When revising multiplying and dividing by 10, 100 and 1000, I noticed that a small group of pupils were still struggling to grasp this concept, particularly when decimals were involved. The scaffold I used was this number slider so that when working out a calculation, the pupils could use the scaffold to see what was actually happening to the place value of the digits when being multiplied or divided.

While the pupils were using the slider, I asked them questions to check and deepen their understanding, such as: what has happened to the value of the numbers? Which direction are they moving in? How many places do they need to be moved and how do you know? These questions helped to scaffold pupils learning by breaking down the process into small components so they could understand each step.

After they had used the slider, I asked the pupils to record the calculation in their books and then write the answer directly underneath it. Their answer was then represented in the squares on the page as well as on the slider. It was at this point I asked them to look at the squares in their maths book and we discussed how the movement of the digits could also be represented by the squares.

By transitioning from the concrete tool – the slider- to the use of the squares in a maths book, I reduced the level of scaffold given to pupils. Using squares in the maths book made pupils think harder about the direction the numbers should move and how many places they should be moved because they no longer had a concrete tool to manipulate.

It's important that scaffolds like this are eventually removed entirely, as pupils need to be able to answer questions like this independently, to ensure they fully master the concept and skill.

After independent practice, the pupils were able to confidently multiply and divide by 10, 100 and 1000 without a concrete resource. They now use the squares in their maths books as a guide if they need to and, when doing this without squared paper, they know they can quickly draw a grid, like this one **(show an example of the grid)** if necessary, to help them 'move' the digits. The use of a concrete tool transitioned to a mental strategy that pupils can draw upon when needed.