LEARNING and TEACHING POINTS

for

Chapter 12
Written Methods for Multiplication and Division

When primary school children are to be taught a method for multiplying two-digit numbers, encourage the method based on the areas of four rectangles, splitting each of the two numbers into tens and units (as shown in Figure 12.3). Once they are fluent with this, they will not need to draw the rectangle and can record the steps in a grid.

Some older children in primary schools will be able to extend this approach to multiply together a three-digit number and a two-digit number (as shown in Figure 12.4), using six areas – and then to record the steps using the grid format.

Note again the importance of children being thoroughly confident in multiplication with multiples of 10 and 100 (for example, $300 \cdot 20$) as a prerequisite for going on to multiply two- and three-digit numbers. Keep reinforcing these basic skills.

Provide children with plenty of practice in mental multiplication by 1, 2, 5, 10, 20 and 50: this is all that is required by way of multiplication to be efficient in doing divisions by the ad hoc repeated subtraction method. Children who are not fluent in subtraction are not yet ready to go on to written methods for division calculations.

You might wish to teach short division as a method for dividing by a single-digit number, explaining the procedure with coins or base-ten blocks. Or you might decide to teach only the ad hoc subtraction method, using this for both single-digit and two-digit divisors.

Haylock, *Mathematics Explained for Primary Teachers, 4th edition*. SAGE Publications Ltd, London.