

Activity:

The aim of this activity is for children to practise multiplication using formal written methods with some place value charts for support. There are three questions to complete. The first two questions allow children to practise the skill, while the third question extends them as they have to problem solve and explain their answer.

Vocabulary:

A **place value chart** is used to identify the value of the digits that make up a number. The chart is broken up into columns which represent 'ones', 'tens', 'hundreds', 'thousands', 'ten thousands', and so on. It can also represent decimal numbers such as 'tenths', 'hundredths', 'thousandths', and so on.

The **formal written method** is also known as the column method. Starting with the ones column, each digit is multiplied by the number on the second row (the multiplier) in turn, and the answer is recorded directly beneath that digit. When the answer is greater than 9, and therefore have 2 digits, the tens in the answer will be transferred to the column to the left, and added after the next multiplication. This is known as an **exchange**.

Exchanging can occur when completing calculations. It may also be known as 'carrying' or 'borrowing' depending on the calculation involved. In multiplication, an exchange happens when a place value column has a value of 10 or more. For example, if there are 3 ones x 4 ones, the ones column will have a total of 12 counters. You cannot have 12 ones in that column, so 10 ones counters must be exchanged for 1 ten counter, leaving 2 ones counters in the ones column. This is the case for any column: if there is a value of 10 or more in one column, the 10 is exchanged for one counter in the column to the left.

Supporting resources:

You can watch a video tutorial about multiplying 3 digits by 1 digit on [kids.classroomsecrets.co.uk](https://www.classroomsecrets.co.uk) >> **Year 4 >> Maths >> Multiplication and Division>> Video Tutorials**.

You can watch the answer explanation video which takes children through this activity and ways to answer it on <https://www.youtube.com/user/ClassroomSecretsLtd/> **playlists >> Year 4 Playlist >> Multiply 3 Digits by 1 Digit Answer Explanation**.

Other resources:

If your child enjoyed this activity and wants to try more activities linked to this learning, you can sign up for £4.83 per month on [classroomsecrets.co.uk/membership](https://www.classroomsecrets.co.uk/membership).

Check out our daily timetable for Year 4 home learning activities on [kids.classroomsecrets.co.uk](https://www.classroomsecrets.co.uk) >> Home Learning Timetable.

Multiply 3 Digits by 1 Digit

1. A (840), C (936), B (1,518)
2. C. It is the odd one out because in is incorrect. $0 \times 3 = 0$, not 3. The answer should be 1,620.
3. No, the second multiplication is incorrect because the 15 (5×3) has been recorded wrongly in the answer. The 5 should be in the ones column in the answer and the 1 should be carried over to the tens column, to be added to the 24 (8×3). The answer should be 1,455.