

END OF YEAR OBJECTIVES

Y5: Refine and use efficient written methods to multiply HTU \times U, TU \times TU, U.t \times U

Y6: Use efficient written methods to multiply integers and decimals by a one-digit integer and to multiply two-digit and three-digit integers by a two-digit integer

WHAT YOU NEED

- Photocopiable page 43 for each pupil
- Writing equipment

MAIN POINTS

- Instant recall of tables up to 10×10 makes multiplying numbers very easy. Everyone should know these tables up to 10×10 .
- It is essential that you line up the digits in the correct columns when doing written calculations.
- This skill needs to be installed in the brain like software on a computer! The children should be able to do these calculations on 'automatic pilot'.

A WRITTEN METHOD FOR MULTIPLICATION

INTRODUCTION

- Ask the class what the routine is when tackling a calculation. (**Estimate, Calculate, Check**)
- Remind the class that they need to learn a reliable written method of multiplication.

WHOLE CLASS TEACHING

- Ask for two two-digit numbers which you are going to multiply. Ask the class for estimates for the answer. Multiply them together using the column method explaining the process as you go. Check the answer and review the estimates – which was closest?
- Repeat the exercise until everyone feels confident using the column method.
- Periodically stop the group and ask them to think about the value of the digits they are multiplying.
- Ask if anyone has got a good method for estimating. Show the class the rounding method (covered in a later lesson). Write 32×87 on the board. Round to 30×90 and with your knowledge of tables you can estimate an answer of 2700. Calculate using the column method to give an answer of 2784. Your answer is very close to your estimate!
- Explain that instant recall of the tables makes multiplying any numbers very easy. You could demonstrate this by asking for a six-digit number and multiplying it by a single-digit number, explaining that you never need to go beyond the range of 9×9 . Anyone who needs to practise their tables should make it their top priority when revising at home.
- Set the class to work on photocopiable page 43.

REVIEW

- Go over any questions which have caused difficulty.
- Try to ensure that everyone is happy with the column method for multiplication. Anyone who is still unsure, needs to practise more!

DON'T PANIC!

- Get used to using 'friendly' numbers for estimates and calculating. These are numbers which are easy to work with mentally, such as 2, 5, 10, 50 and 100.

HOMEWORK

- Everybody should take their SATs armed with the column written method of multiplication and the times tables well and truly learnt. If there are still gaps, now is the time to fill them.