Multiplying Decimals Lesson Pack 19
Teaching Ideas

Learning Objective:	To multiply decimals.
Success Criteria:	• To multiply decimals with 1 significant figure. • To multiply decimals with more than 1 significant figure. • To solve problems involving multiplying with decimals.
Context	This is the 8th lesson in the four operations scheme of work. It follows lessons on the four operations with whole numbers, multiplying and dividing decimals by powers of 10 and adding and subtracting with decimals. It is followed by dividing with decimals and using the four operations with negative numbers.

Starter

Multiplications

The students calculate the given multiplications, using a calculator. Encourage them to take the original calculation, remove the decimal points and perform the calculation with the remaining numbers. Talk about the decimal places in the calculation and in the answer. Thus, students will, with support, have derived a method for multiplying decimals.

Main Activities

Multiplying Decimals Mentally

Talk through the method discussed in the starter to show how to evaluate the given product, emphasising the stages, then allow students to practise the method, using the examples given. Get students to check their answers and use this as an opportunity to iron out any misconceptions. Have any students placed the non-zero digits directly to the right of the decimal point? Have any students counted the number of zeroes in the question instead of the number of decimal places?

Dealing with Numbers that End in Zero

Ensure that students understand that they should place the decimal point before removing any unnecessary zeroes on the right-hand side of the number.

A Written Method for Multiplying Decimals

Explain that, when a decimal has more than one non-zero digit, students may need to use a written method, e.g. grid or long multiplication for calculating their initial answer. Once they have done this, the method for placing the decimal point is the same as before.

Activity Sheet

Have students work individually through the **Multiplying Decimals Activity Sheet**, which offers students questions of increasing difficulty, culminating in some worded problems. An answer sheet is also provided.

Plenary

Ask the students to use their knowledge of decimal multiplication to work out powers of decimals and deduce the value of 0.1 to the power of 9.