

# Multiplication and Division:

## Expanded Multiplication with Two-Digit Numbers

<b>Aim:</b> To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.  I can multiply two-digit by one-digit numbers using expanded multiplication.	<b>Success Criteria:</b> I can set out the calculation correctly.  I can partition the calculation and multiply the ones then the tens.  I can add the two calculations together to find the answer.	<b>Resources:</b> <a href="#">Lesson Pack</a>  Whiteboards and pens – class set
	<b>Key/New Words:</b> Partition, multiply, expanded multiplication, tens, ones, calculation.	<b>Preparation:</b> Differentiated <a href="#">Expanded Multiplication Activity Sheet</a> – 1 per child  <a href="#">Twelve Times Table Bingo Game</a> – as required  <a href="#">Multiplication Squares</a> – as required

**Prior Learning:** It will be helpful if the children know the multiplication and division facts up to  $12 \times 12$ .

### Learning Sequence

	<b>Twelve Times Table Bingo:</b> Give each child a card from the <a href="#">Twelve Times Table Bingo Game</a> . Reveal the numbers on the <a href="#">Lesson Presentation</a> one by one (or use the bingo cards if preferred). If a child has the number sentence corresponds to that number, then they should cover that square. Once all their squares are covered they can shout 'BINGO'!	
	<b>The Grid Method:</b> Remind children how to use the grid method of multiplication. Check that they have remembered how to use multiplication magic to multiply multiples of ten.	
	<b>Expanded Multiplication:</b> Work through the example on the <a href="#">Lesson Presentation</a> to model using expanded multiplication to multiply a two-digit by a one-digit number. Give children time to solve the second calculation problem independently on whiteboards before revealing the answer. Use the third calculation to model how to use the method when regrouping. Give children time to solve the fourth calculation before sharing and discussing answers.	
	<b>Medal Multiplication:</b> The children <a href="#">solve expanded multiplication problems</a> in similar-ability pairs, using whiteboards and pens. The examples are presented in three boxes; gold, silver and bronze. Encourage children to choose their own level of challenge. After, ask children to check and mark their answers. Encourage them to identify their errors, explain where they went wrong and correct them if possible.	
	<b>Expanded Multiplication Activities:</b> Children complete the differentiated <a href="#">Expanded Multiplication Activity Sheets</a> , <a href="#">multiplying using expanded multiplication</a> . <div>  Children practise the grid method first then progress onto the expanded method. Provide a <a href="#">Multiplication Square</a> for support if required.            Children practise expanded multiplication and begin to set out their calculations independently.            Children practise expanded multiplication, including extracting numbers from a word problem and setting out their calculations independently.         </div>	
	<b>Missing Numbers:</b> The children use expanded multiplication to solve problems by identifying missing digits in expanded multiplication calculations.	

### Masterit

**Beatit:** Play this [BBC Tables Grid Challenge](#) to practise tables recall, improving both speed and accuracy.

**Teachit:** Ask children to teach a younger child how to calculate using the expanded method, making sure that they explain each step carefully.

**Designit:** The children design a poster to remind them how to calculate using expanded multiplication.