

## Mentor Handout 2.2: Lesson planning – Taking into consideration prior knowledge

**Lesson Title:** Expanding Brackets

**Year Group:** Year 8.

**Subject:** Maths

**Prior knowledge context:** This is the first lesson on expanding brackets they have done. We have already done lessons on collecting like terms, which they will use in the lesson. Pupils were confident collecting like terms and did well on a recent test which included that.

Prior knowledge/experience to link to	Content of lesson including key vocabulary you plan to introduce	Is this new?	Include?	How will I make the connection?
Previous lesson on algebraic notation and collecting like terms e.g. $f + 2f + 3g = 3f + 3g$	Starter activity – 10 questions including addition and multiplication with algebra	N	Y	Put a completed example on the board for number 1. Verbally remind pupils of lesson last term and they can look back in books if they want.
Expand (Get bigger, multiplication) Variable (Maybe in Science? To vary) Coefficient (Words with root Co)	Discuss learning objective 'to be able to expand brackets' Vocabulary - 'Expanding', 'Variable', 'Coefficient'	Y	Y	Ask: "Has anyone seen these words before?" Discuss examples e.g. from science lessons. Or co-ed for co-efficient.
Area of a rectangle	Explaining how to expand a single bracket – teacher at the front showing examples.	Y	Y	Model: Show example calculating the area of a rectangle with numbers. Gradually change examples to include algebraic terms. Do a few examples together at the board.
The examples from the board.	Students practice expanding a single bracket with questions. Questions get gradually harder with expanding two single brackets and combining.	Y	Y	Keep the examples on the board from the previous part of the lesson.
Square numbers	Expanding a double bracket	Y	N – save for next lesson	Model: Show an example with numbers first, e.g. $4 \times 4 = 16$ or $4^2$ . Then show with letters $w$ times $w = w^2$
Example from the board and previous work on expanding brackets.	Task – Pupils match the expanded brackets to the non-expanded brackets. Review answers together.	Y	Y	Keep examples on the board.
Previous examples from the lesson	Final check task to find the missing terms in the partially completed questions and answers.	Y	Y	

