

Breaking down complex tasks or ideas

Breaking down complex ideas into smaller steps is a difficult task, even for experienced teachers, and it takes time to consider what the steps are. It requires both subject knowledge and pedagogical knowledge; you need to consider what the logical steps are for the subject matter and the amount of information that your pupils will be able to handle (based on their age and experience in the topic).

An example of how a complex idea could be broken into smaller steps can be seen below. This maths example is taken from Doug Lemov's book, 'Teach Like a Champion 2.0' (2015).

When teaching pupils to round numbers to a given place value, the following steps can be used:

1. Underline the digit in the place you are rounding to
2. Circle the digit to the right of the underlined digit
3. If the circled digit is four or less, the underlined digit remains the same; if the circled digit is five or more, the underlined digit is one more
4. All the digits to the left of the underlined digit stay the same
5. All the digits to the right of the underlined digit become zero



Over to you!

Think about the example above and make notes on the following questions using the [notes tab](#) (or your own notebook):

1. Why does breaking the explanation down into these five steps avoid overloading the working memory?
2. What prior knowledge is the teacher assuming the pupils have?
3. Would the explanation be different if the pupils were already proficient at a number of the steps?
4. What else would breaking the explanation down into these steps support the teacher to do?

Breaking down complex tasks in action

Select the most relevant video from the drop down menus below. Watch the video as the teacher breaks down an idea into smaller steps. As you watch, consider the following questions and make notes using the [notes tab](#) (or your own notebook):

- What prior knowledge is the teacher assuming that the pupils already have?
- Do you agree with the steps they have chosen?
- How has the teacher avoided overloading the working memory?

Early years



Direct Link: [Breaking down complex tasks - Early Years\(this link opens in a new window/tab\)](#)

Primary



Direct Link: [Breaking down complex tasks - Primary\(this link opens in a new window/tab\)](#)

Secondary



Direct Link: [Breaking down complex tasks - Secondary](#)

Specialist



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