

# Developing pupils' mental models across a scheme of work - Primary and Secondary

**By Emily Maule**

Building up pupils' mental models is of paramount importance as this is what allows for pupils to be able to remember over time and draw upon the concepts, knowledge and skills they'll need for successful learning now and in the future.

To support this, the first strategy I use in this scheme (and all schemes) is retrieval and spaced practice, such as questioning and quizzing pupils on their knowledge each lesson and then cumulatively quizzing them throughout the scheme. And then for subsequent schemes in Year 7, I quiz them on previous schemes to keep that knowledge alive. Referring back to prior learning also reminds pupils of its importance.

The second strategy I use in all schemes is the use of concrete examples and illustrations to help pupils engage with abstract concepts. For example, in this scheme when teaching about volcanic hazards, I support the teaching of abstract concepts such as lava flows with concrete examples and images so that pupils can engage with the material and draw on anything relevant they might have stored in their long-term memory - even from films or books they have read or seen.

A third strategy is the intentional teaching and revisiting of tier 2 and 3 vocabulary. I repeatedly revisit the vocabulary in so that pupils are continually exposed to it. For example, starting off using technical language such as tectonic hazards, tectonic plates, mantle, pressure and friction means that we can use the correct terminology from the beginning and build up pupils' familiarity with it throughout the scheme.

Finally, in this scheme, as with all schemes, I have sought to balance the use of exposition with pupils practising skills and knowledge, whilst always narrating the links between new content and the core concepts. These features of classroom practice help pupils to learn and build confidence, instead of new content causing them to panic and then retreat.