

## How pupils learn (Standard 2 – Promote good progress)

Learn that...	Learn how to...
<p>1. learning involves a lasting change in pupils' capabilities or understanding</p> <p>2. prior knowledge plays an important role in how pupils learn; committing some key facts to their long-term memory is likely to help pupils learn more complex ideas</p> <p>3. an important factor in learning is memory, which can be thought of as comprising two elements: working memory and long-term memory</p> <p>4. working memory is where information that is being actively processed is held, but its capacity is limited and can be overloaded</p> <p>5. long-term memory can be considered as a store of knowledge that changes as pupils learn by integrating new ideas with existing knowledge</p> <p>6. where prior knowledge is weak, pupils are more likely to develop misconceptions, particularly if new ideas are introduced too quickly</p> <p>7. regular purposeful practice of what has previously been taught can help consolidate material and help pupils remember what they have learned</p> <p>8. requiring pupils to retrieve information from memory, and spacing practice so that pupils revisit ideas after a gap are also likely to strengthen recall</p> <p>9. worked examples that take pupils through each step of a new process are also likely to support pupils to learn.</p>	<p><b>Avoid overloading working memory, by:</b></p> <ul style="list-style-type: none"> <li>• <i>taking into account pupils' prior knowledge when planning how much new information to introduce</i></li> <li>• <i>breaking complex material into smaller steps (e.g. using partially completed examples to focus pupils on the specific steps)</i></li> <li>• <i>reducing distractions that take attention away from what is being taught (e.g. keeping the complexity of a task to a minimum, so that attention is focused on the content).</i></li> </ul> <p><b>Build on pupils' prior knowledge, by:</b></p> <ul style="list-style-type: none"> <li>• <i>identifying possible misconceptions and planning how to prevent these forming</i></li> <li>• <i>linking what pupils already know to what is being taught (e.g. explaining how new content builds on what is already known)</i></li> <li>• <i>sequencing lessons so that pupils secure foundational knowledge before encountering more complex content</i></li> <li>• <i>encouraging pupils to share emerging understanding and points of confusion so that misconceptions can be addressed.</i></li> </ul> <p><b>Increase likelihood of material being retained, by:</b></p> <ul style="list-style-type: none"> <li>• <i>balancing exposition, repetition, practice and retrieval of critical knowledge and skills</i></li> <li>• <i>planning regular review and practice of key ideas and concepts over time</i></li> <li>• <i>designing practice, generation and retrieval tasks that provide just enough support so that pupils experience a high success rate when attempting challenging work</i></li> <li>• <i>increasing challenge with practice and retrieval as knowledge becomes more secure (e.g. by removing scaffolding, lengthening spacing or introducing interacting elements).</i></li> </ul>
<p><b>Notes</b></p> <p><i>Learn that...</i> statements are informed by the best available educational research; references and further reading are provided below.</p> <p><i>Learn how to...</i> statements are drawn from a wider evidence base including both academic research and additional guidance from expert practitioners.</p>	

Source: Dfe ITT core content framework and Early Career Framework (2019)