

Adaptations for Maths	
Cognition and Learning	
Barriers	Provision
Information may not be understood or retained Accessing and understanding multi-step problems Memory- consolidation skills	<ul style="list-style-type: none"> <li>• Retrieval practice to support/refresh previous learning</li> <li>• Explicit link and reactivation of prior learning as 'way in' to new learning.</li> <li>• Pre-teach new concepts and key knowledge.</li> <li>• Show the focus of each lesson and how it fits in the sequence of lessons. How do lessons link together to develop knowledge?</li> <li>• Use symbols, images or objects to make it more accessible.</li> <li>• Referring to working wall.</li> <li>• Use of concrete, pictorial and abstract learning</li> <li>• Adapt pace of delivery to processing speeds.</li> <li>• Mixed-ability pairings to support discussion.</li> <li>• Use of stem sentences</li> <li>• Worked examples used to support and remind</li> </ul>
Communication and Interaction	
Barriers	Provision
Understanding mathematical language Understanding mathematical concepts Understanding abstract concepts Processing multistep problems	<p>Recognise that the language of Maths may be challenging for many children – for example: The specific scientific use of everyday words such as 'square', or terms specific to maths, such as 'fraction'.</p> <ul style="list-style-type: none"> <li>• Pre-teach key vocabulary, then ensure multiple and regular exposure to these words including referring to knowledge organisers and make them clearly visual in the classroom environment.</li> <li>• Label equipment with a symbol and word (dual coding)</li> <li>• Explicitly teach the meaning of key mathematical vocabulary in lessons.</li> <li>• Provide flashcards with key vocabulary – with visual cues.</li> <li>• Check children's understanding by inviting them to reformulate reasoning in their own words or in other ways. For example, after articulating <math>3 \times 5 = 15</math>, reference to repeated addition, use of number line etc</li> <li>• Use real objects as a starting point for developing the concepts and the language needed to describe, discuss and explain what pupils have observed or experienced.</li> <li>• Give children time to process and formulate their answers to questions before responding.</li> <li>• Use of manipulatives.</li> <li>• Use of worked examples and sharing these with pupils as a frame.</li> <li>• Provision of x-table squares to support pupils in conducting calculations.</li> <li>• Chunking up word problems and supporting pupils to identify steps in multi-step problems.</li> </ul>
Sensory and/or physical	
Barriers	Provision
Difficulties impacting eyesight, hearing, movement, touch etc. Sensory processing difficulties.	<ul style="list-style-type: none"> <li>• Label new equipment and processes to help develop vocabulary. <ul style="list-style-type: none"> <li>• Use of concrete manipulatives to support e.g. Numicon.</li> </ul> </li> <li>• Choice and size of font.</li> <li>• Consider children hard of hearing when reading aloud, sit them in front of you so they can see your face.</li> <li>• Consider pupil sensory audits and adaptations.</li> <li>• Use of technology including iPads and laptops.</li> <li>• Use of concentration aids.</li> </ul>

	<ul style="list-style-type: none"> <li>• Finger-strengthening exercises.</li> </ul>
<b>Social, Emotional and Mental Health</b>	
<b>Barriers</b>	<b>Provision</b>
<p>Anxiety</p> <p>Participation/ safety/ practical work</p>	<ul style="list-style-type: none"> <li>• Targeted question – consider in whole-class or group discussion supporting pupils to participate by asking low-threat questions you know they can answer to foster confidence to contribute.</li> <li>• Consistency of approach reduces children’s anxiety - it allows children to predict what will happen. Provide an overview of the lesson elements so the children know what is coming, pre-teach the child some of the elements of the lesson etc.</li> <li>• Consider groupings – prepare the children by ensuring they are aware of the group they will be working in. Assign roles to each member of the group with a clear outline of job roles.</li> <li>• You may need to specifically teach the skills of cooperation and interaction for practical work.</li> </ul>