



*Strategies for supporting pupils with  
Special Educational Needs and Disabilities in  
Science lessons.*

	<b>Here's how we will help.</b>
<b><i>Attention Deficit Hyperactivity Disorder</i></b>	<ul style="list-style-type: none"> <li>• <i>Practical activities - Science lessons have practical activities at their heart</i></li> <li>• <i>Madron Daniel utilises its outdoor area to support children who need a bigger space to work in, to be creative and to show their learning practically.</i></li> </ul>
<b><i>Anxiety</i></b>	<ul style="list-style-type: none"> <li>• <i>Children are prepared BEFORE the Science lesson if the lesson will be different to normal e.g. own clothes/outside/visitors.</i></li> <li>• <i>Children are prepared for any reactions/noises.</i></li> <li>• <i>Children are aware through a strong classroom science ethos</i></li> </ul>

	<p><i>that sometimes experiments go wrong and building resilience in this area is important. References to growth mindset are made and the differences/mistakes are valued as part of the classroom ethos.</i></p>
<p><b>Autism Spectrum Disorder</b></p>	<ul style="list-style-type: none"> <li>• <i>Children are prepared BEFORE the Science lesson if the lesson will be different to normal e.g. own clothes/outside/visitors.</i></li> <li>• <i>Children are prepared for any reactions/noises.</i></li> </ul> <p><i>Depending on the child and their specific needs, children on the Autism Spectrum may benefit from:</i></p> <ul style="list-style-type: none"> <li>• <i>Group work (they may be given a role within the group that they have chosen or can observe)</i></li> <li>• <i>One-to-one TA support – children can complete the experiment with tailored support.</i></li> <li>• <i>Preparation if there will be loud noises/mess etc</i></li> <li>• <i>Being allowed to meet their own sensory needs eg: wash hands/give themselves distance if required</i></li> <li>• <i>Use annotated photographs as evidence / scribe if needed</i></li> </ul>
<p><b>Dyscalculia</b></p>	<p><i>The most difficult element for dyscalculia in Science is recording accurately. To help we will:</i></p> <ul style="list-style-type: none"> <li>• <i>Give the child a pre-made graph with some data already completed</i></li> <li>• <i>Have a range of ways to show their learning including: photographs, diagrams, labels to stick onto pictures, worksheets, posters, presentations (oral and visual), working in groups, verbal contributions, practical experiments and observations, matching activities etc</i></li> </ul>
<p><b>Dyslexia</b></p>	<ul style="list-style-type: none"> <li>• <i>Provide a range of ways for the child to show their learning including: photographs, diagrams, labels to stick onto pictures, worksheets, posters, presentations (oral and visual), working in groups, verbal contributions, practical experiments and observations, matching activities etc. so writing does not interfere with showing knowledge</i></li> <li>• <i>Visual representations and videos are used to support lesson inputs as well as scientific texts.</i></li> <li>• <i>Children have access to learning resources such as sound charts, high frequency words that will support them to record their ideas and findings.</i></li> </ul>
<p><b>Dyspraxia</b></p>	<ul style="list-style-type: none"> <li>• <i>Give opportunity for working in groups to allow children to work to their strengths. Children are aware of the importance of working together to achieve as part of a shared science ethos within the classroom.</i></li> <li>• <i>Experiments will be altered to allow access to all</i></li> <li>• <i>TA/Teacher support will be given where required</i></li> </ul>

	<ul style="list-style-type: none"> <li>• <i>Utilise outdoor space when needed. Children can work on a larger scale or feel more confident in a larger working area.</i></li> </ul>
<p><b>Hearing Impairment</b></p>	<ul style="list-style-type: none"> <li>• <i>Provide written and pictorial instructions</i></li> <li>• <i>Allow discussion and sharing of ideas to build verbal skills</i></li> <li>• <i>Have group members face the child when sharing</i></li> <li>• <i>Where practical activities are taken outside, inputs are given inside where possible to minimise noise interference.</i></li> <li>• <i>Childs specific seating in class to facilitate learning.</i></li> </ul>
<p><b>Toileting Issues</b></p>	<ul style="list-style-type: none"> <li>• <i>Allow time to complete the experiment – give extra time if required</i></li> </ul>
<p><b>Cognition and Learning Challenges</b></p>	<ul style="list-style-type: none"> <li>• <i>We will allow for a range of ways for children to explain an experiment/results including in words, pictures, comparisons to real-life situations and contextualisation.</i></li> <li>• <i>We will have a range of ways for children to show their learning including: photographs, diagrams, labels to stick onto pictures, worksheets, posters, presentations (oral and visual), working in groups, verbal contributions, practical experiments and observations, matching activities etc</i></li> <li>• <i>Visual representations and videos are used to support lesson inputs as well as scientific texts.</i></li> </ul>
<p><b>Speech, Language + Communication Needs</b></p>	<ul style="list-style-type: none"> <li>• <i>We will have a range of ways to show their learning including: photographs, diagrams, labels to stick onto pictures, worksheets, posters, presentations (oral and visual), working in groups, verbal contributions, practical experiments and observations, matching activities etc.</i></li> <li>• <i>Vocabulary cards/mats with visual representations will be used to give instructions and to structure the sessions.</i></li> </ul>
<p><b>Tourette Syndrome</b></p>	<ul style="list-style-type: none"> <li>• <i>Depending on frequency and severity of tics, some experiments may need to be adapted to accommodate spillage and experiments will be carefully supervised.</i></li> <li>• <i>Give opportunity for working in groups to allow children to work to their strengths. Children are aware of the importance of working together to achieve as part of a shared science ethos within the classroom.</i></li> </ul>

<p><b>Experienced Trauma</b></p>	<p><i>As with anxiety, trauma can stop a child learning in Science due to associations e.g. sights, smells, textures.</i></p> <ul style="list-style-type: none"> <li>• <i>We will prepare the child regarding noises, mess etc. if the experiment has the potential to trigger them.</i></li> <li>• <i>We will allow the child to observe rather than participate if needed or through group work, this could be allowing them to scribe, give instructions etc. or to be involved in the experiment without handling the ingredients/equipment.</i></li> </ul>
<p><b>Visual Impairment</b></p>	<ul style="list-style-type: none"> <li>• <i>Familiarise the child with the equipment being used beforehand - let them feel the equipment and create an image in their mind.</i></li> <li>• <i>Discuss the experiment beforehand and prepare the child for any noises/textures.</i></li> <li>• <i>The child will complete the experiment with support given by TA/teacher as needed.</i></li> <li>• <i>We will explain the representation to the child and scribe responses to experiment, predictions beforehand etc</i></li> <li>• <i>Scribe, voice notes or videos used to record child's ideas.</i></li> </ul>