

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

Individual Need	Here's how we help everyone learn...
<b>Attention Deficit Hyperactivity Disorder</b>	<ul style="list-style-type: none"> <li>✓ Practical activities – Science lessons have practical activities at their heart – if a child needs support for this, the classroom TA to be on hand to help (but not lead) the activity.</li> </ul>
<b>Anxiety</b>	<ul style="list-style-type: none"> <li>✓ Children are prepared before the Science lesson – instructions for carrying out the experiment are given and children are talked through the steps, predictions are discussed beforehand and children are prepared for any reactions/noises.</li> <li>✓ Sometimes experiments go wrong and building resilience in this area is important. If the anxiety is around errors/disappointing a group/teacher, children are reassured using, e.g. Edison quote “I haven't failed, I've just found 10,000 ways that won't work.”</li> </ul>
<b>Autism Spectrum Disorder</b>	<p>Depending on the child and their specific needs, children on the Autism Spectrum may benefit from:</p> <ul style="list-style-type: none"> <li>✓ Group work (they may be given a role within the group that they have chosen or can observe).</li> <li>✓ One-to-one TA support – children can complete the experiment with tailored support.</li> <li>✓ Preparation if there will be loud noises/mess etc.</li> <li>✓ Being allowed to meet their own sensory needs, e.g. washhands/give themselves distance if required.</li> <li>✓ Use annotate photographs as evidence – scribe if needed.</li> </ul>
<b>Dyscalculia</b>	<p>The most difficult element for dyscalculia in Science is recording accurately. To help we will:</p> <ul style="list-style-type: none"> <li>✓ Give the child a pre-made graph with some data already completed.</li> <li>✓ 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.</li> </ul>
<b>Dyslexia</b>	<ul style="list-style-type: none"> <li>✓ 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.</li> </ul>

<p><b>Dyspraxia</b></p>	<ul style="list-style-type: none"> <li>✓ Give opportunity for working in groups to allow children to work to their strengths.</li> <li>✓ Experiments will be altered to allow access to all.</li> <li>✓ TA/Teacher support will be given where required.</li> </ul>
<p><b>Hearing Impairment</b></p>	<ul style="list-style-type: none"> <li>✓ Provide written and pictorial instructions</li> <li>✓ Allow discussion and sharing of ideas to build verbal skills</li> <li>✓ Have group members face the child when sharing</li> </ul>
<p><b>Toileting Issues</b></p>	<ul style="list-style-type: none"> <li>✓ Allow time to complete the experiment – give extra time if required.</li> </ul>
<p><b>Cognition and Learning Challenges</b></p>	<ul style="list-style-type: none"> <li>✓ Allow for a range of ways for children to explain an experiment/results including in words, pictures, comparisons to real-life situations and contextualisation.</li> <li>✓ 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.</li> </ul>
<p><b>Speech, Language &amp; Communication Needs</b></p>	<ul style="list-style-type: none"> <li>✓ 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.</li> <li>✓ Vocabulary cards/mats with visual representations will be used to give instructions and to structure the sessions.</li> </ul>
<p><b>Tourette Syndrome</b></p>	<ul style="list-style-type: none"> <li>✓ Depending on frequency and severity of tics, some experiments may need to be adapted to accommodate spillage and experiments will be carefully supervised.</li> </ul>
<p><b>Experienced Trauma</b></p>	<ul style="list-style-type: none"> <li>✓ As with anxiety, trauma can stop a child learning in Science due to associations e.g. sights, smells, textures.</li> <li>✓ Prepare the child regarding noises, mess etc. if the experiment has the potential to trigger them.</li> <li>✓ Allow the child to observe rather than participate if needed – in group work, this could be allowing them to scribe, give instructions etc. to be involved in the experiment without handling the ingredients/equipment.</li> </ul>

**Visual  
Impairment**

- ✓ Familiarise the child with the equipment being used beforehand – let them feel the equipment and create an image in their mind. Discuss the experiment beforehand and prepare the child for any noises/textures.
- ✓ The child will complete the experiment with support given by TA/teacher as needed.
- ✓ Provide 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.
- ✓ Explain the representation to the child and scribe responses to the experiment, predictions etc. beforehand.