



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



<u>Individual Need</u>	<u>Strategies to promote inclusion</u>
Attention Deficit Hyperactivity Disorder (ADHD)	<ul style="list-style-type: none"> • A range of practical activities at their heart of every unit – if a child needs support for this, an adult or peer will be available. • Praise positive behaviour at each step to encourage low self-esteem. • Ensure clear instructions are given throughout the lesson. • Provide brain breaks/movement breaks as appropriate. • Ensure step by step instructions are given, so each child knows what part of the lesson they are working on. • Clearly model scientific equipment and allow time for children to explore to avoid distractions and aid understanding. • Check safety procedures are understood.
Autism Spectrum Condition (ASC)	<p>Depending on the child and their specific needs, children on the Autism Spectrum may benefit from:</p> <ul style="list-style-type: none"> • Group work (they may be given a role within the group that they have chosen or can observe) • One-to-one TA support – children can complete the experiment with tailored support • Preparation if there will be loud noises/mess etc Being allowed to meet their own sensory needs eg: wash hands/give themselves distance if required • Use annotated photographs as evidence – scribe if needed • Use a visual timetable so the child knows what is happening at each stage of the session/day. • Avoid changing seating plans. • Ensure outcomes are clear, with a clear end point to the lesson, so children know when they have reached this. • Use simple, specific instructions that are clear to understand.
Dyscalculia	<p>The most challenging element for dyscalculia in science is recording quantitative accurately. To help we will:</p> <ul style="list-style-type: none"> • Differentiated quantitative data to analyse. • Give the child a pre-made graph with some data already completed. • 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.
Dyslexia	<ul style="list-style-type: none"> • When using the interactive whiteboard, use light, pastel coloured background to avoid black text on a white background. • Any printed resources will be on pastel coloured paper, avoiding black font on white paper. • Individual coloured overlays used by pupils as necessary when reading texts aloud. • Use simple, specific instructions that are clear to understand. • Pre-teach vocabulary linked to science that will help the child to succeed in the lesson. • Differentiate the learning objective so that the child understands what is

	<p>being asked of them.</p> <ul style="list-style-type: none"> • Model how to use science tools before setting the work. • Label equipment with symbols and words where appropriate.
Dyspraxia	<ul style="list-style-type: none"> • Give opportunity for working in groups to allow children to work to their strengths. • Experiments will be adapted to allow access to all. • TA/Teacher/Peer support will be given where required, especially during practical activities.
Hearing Impairment	<ul style="list-style-type: none"> • Adults will discretely check that the child is wearing their hearing aid if required. • A discussion will take place between the adult and child so that the child is able to choose where they sit/where is best for them to access the learning within the classroom environment. • Background noise will be minimised and the classroom will be a quiet, calm environment. • Provide written and pictorial instructions. • Allow discussion and sharing of ideas to build verbal skills. • Have group members face the child when sharing.
Toileting Needs	<ul style="list-style-type: none"> • Children will be able to leave and return to the classroom whenever necessary. • A seating arrangement will be made so that the child can enter and leave the classroom discretely. • Encourage children to use the toilet before starting a scientific experiment. • Staff to follow guidance in pupil's intimate care plans.
Cognition and Learning Challenges	<ul style="list-style-type: none"> • Differentiated learning activities to suit children's cognition and learning abilities. • Total recall activities and low-stake quizzes are used frequently to develop cognition and learning in art and promote a deeper understanding of skills. • 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. • 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. • Recognise that the language of science may be challenging for many children
Speech, Language & Communication Needs	<ul style="list-style-type: none"> • Provide instructions that are clear, concise and match the language of the child, delivering these instructions slowly. • Use a visual timetable where necessary. • Use visuals on resource lists. • Language is purposefully kept simple and consistent throughout the sessions. • Clear language is used to model and expand what has been said. • Plenty of opportunity is given to communicate ideas in a small group. • Any attempt to communicate is responded to positively.
Tourette Syndrome	<ul style="list-style-type: none"> • Depending on frequency and severity of tics, some experiments may need to be adapted to accommodate spillage and experiments will be

	<p>carefully supervised.</p> <ul style="list-style-type: none"> • Adults will listen and respond to the child with support and understanding. • A structure will be provided (check list) to support the learning taking place, this will be differentiated to the activity and include the main elements needed to aid the child's attention. • There will be an understanding that the activity may not be completed.
<p>Social, Emotional and Mental Health</p>	<ul style="list-style-type: none"> • A child's previous background in trauma or anxiety can stop learning in science due to associations e.g. sights, smells, textures etc. • We will prepare the child regarding any of the senses if the experiment has the potential to trigger them. • We will 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. • Children are prepared prior to 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.
<p>Visual Impairment</p>	<ul style="list-style-type: none"> • 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. • We will 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. • We will explain the representation to the child and scribe responses to experiment, predictions beforehand etc.