SEND Adaptations for SCIENCE

"Learning in Science involves children building their knowledge of important concepts and procedures. When learning new content, learners must connect this to what they already know. This means that it is important that learners develop secure understanding or previously taught concepts and procedures."

Cognition and Learning	Communication and Interaction	Social, Emotional and Mental Health	Sensory and/or Physical
• Use of first-hand practical activities to explore and spark interest. • Use of secondary sources to support understanding of content such as books, photos, videos, simulations or animations. • Use of word banks (and picture cards where necessary) to support understanding and learning of vocabulary. • Knowledge organisers • Use of alternative ways of recording for writing up experiments including some scribing. • Pre-teach new vocabulary and concepts • Providing examples of Science learning or experiments as models for children. • Use of small groups to scaffold SEND children where needed. • Application of vocabulary into different contexts to deepen understanding. • Visuals to support to build on and extend scientific learning • Step by step experiment instructions • models for questioning and write up	• Create a calm and simple working classroom with clear routines, expectations and organised, labelled workspaces. • Consider carefully where children are seated to maximise their focus and attention and minimise background noise/distraction. • Pre-expose children with some of the Science equipment so that they naturally have an interest in what the learning is going to be about. • Science does not always run according to a set routine so children can be prepared for the structure of a lesson by breaking it down for them into manageable chunks and explaining this in advance of the learning. Now and Next boards could be useful for this. • Simple, step by step instructions verbally and then in a prompt sheet. • Visual words/cues/phrases. • Repetition and reinforcement. • Scaffolding observational skills for Science through careful and targeted questioning. • Giving a processing prompt that a question will be coming, give the question before moving onto a few other children, before coming back for the answer. • Use of appropriate modelling to support understanding. • Classroom jobs for setting up experiments	• Ensure that the learning environment is calm and not too stimulating, that resources are clearly labelled and organised for independent use, therefore not encouraging frustration. • Ensure that instructions are clear and tasks are broken down to be achievable. • Children can be given a role within a group which does not involve them being highly active or speaking out to not heighten arousal. • Providing fidgets to allow children to concentrate and listen despite not necessarily looking like they are listening. • Using IT to support where necessary either for whole class learning or for recording their learning. • Providing a safe space for children within the lesson if needed – this can be accessed through an adult directed or child-initiated time out card. • Use of positive language to encourage good choice and higher self-esteem. • Teaching with empathy and understanding of the child's needs. • Allow sensory/brain breaks as a break from learning. • Think about cognitive overload and the child's ability to cope with this.	• Ensure all images are large enough and accessible. • Consider where children with a hearing, sensory or other impairment are sitting in relation to the whiteboard or resources. • Use of an iPad to support children with a visual impairment where screen sharing can occur. • Additional ways of recording, i.e. videos, verbal commentary etc rather than always writing. • Consider the Science equipment which is being used – does the child have a fine motor control difficulty which makes using equipment such as tweezers or electrical circuits difficult. • Working within mixed ability groups to support. • Pencil grips, tripod pencils, left handed pens etc to support. Use of IT to support access beyond screen sharing. • Careful consideration of trips for Science, will the child need some access arrangements or physical support? Additional risk assessments may be required.