SEND in Science

What is in place for teaching Science to children with SEND so they can shine as lights in the world.

Cognition and Learning		Communication and Interaction	
Subject Challenges for SEND	**Provision for SEND**	**Subject Challenges for SEND**	**Provision for SEND**
Age appropriate content for all children in the science lessons	Using personal stories to understand different contexts 1:1 session Use of books/stories	Children may struggle to communicate and express opinions in science	Visual cues Visual words/ phrases Minimise background noise Child to face T to support lip reading Write new vocabulary down Dual coding Language Buddies
Gaps in knowledge and understanding in science	Ensure previous years science learning objectives are covered		
Accessing learning due to poor literacy skills	Key words displayed Use of shorter/less complex sentences in resources given Writing frames where possible	Language difficulties may make chn unable to access their science learning	Lots of reinforcement Lots of repetition Scaffold observational skills through careful questioning Use of simple instructions Step by step instructions Careful and appropriate modelling to support understanding Visual aids and dual coding Video's of examples and practice
Children may struggle to remember information/facts/previous learning in science	Lots of retrieval opportunities and reinforcement in science lessons Clear differentiation Apply new vocab into lots of different contexts – pre teaching vocab Physical warm ups to recall previous learning		

Physical and sensory		Social Emotional and Mental Health	
Subject Challenges for SEND	**Provision for SEND**	**Subject Challenges for SEND**	**Provision for SEND**
• Children with visual impairment may find it difficult to see images shown during the science lessons. • Recording information may be difficult from a scientific investigation. • Children with fine motor difficulties may find it difficult to use specific science equipment. • Children who might not be able to touch or handle equipment.	Ensure images are enlarged and accessible. Ensure children are close to whiteboard/ sources. Provide additional ways to record e.g., video, drawings, verbal explanation. Use EYFS tools that may be larger to use. Working in mixed groups to support. Pencil grips and tripod pencils. Use of ICT to support access. Addressing individual needs on a school trip to ensure full access e.g., breaks for walking etc.	• Children may become frustrated/withdraw/ aggressive when work is challenging. • Children's mental health and wellbeing may impact on their ability to access their learning.	Ensure instructions are clear. Children provided with a role which may not involve active participation. Use of ICT to support access. Providing appropriate resources so that children can access the lesson e.g., fiddle toy. Providing a safe space for the children within the lesson if needed- breakout spaces. Ensure children have opportunities to have sensory breaks etc from their work. Consider cognitive overload and children's ability to manage this. Ensuring that parents are aware of curriculum and can support in science.

Non-negotiables that need to be in place in all lessons/classrooms when teaching Science:

1. **High challenge/low threat activities.**
2. Children can **express the key learning objectives** using a range of recording methods whether written, recorded, drawn etc.
3. **Memory aids are used**- dual coding, writing frames, word banks, learning walls etc.