

<u>Cognition and Learning</u>		<u>Communication and Interaction</u>	
<u>Support Challenges for SEND</u>	<u>Provision for SEND</u>	<u>Subject Challenges for SEND</u>	<u>Provision for SEND</u>
<p>The ability to explain a scientific concept/provide reasoning to explain a thought or opinion.</p> <p>The ability to recall basic scientific information e.g. five animal groups (mammals, fish, birds, reptiles, amphibians) .</p>	<p>Use stem sentences to provide subject specific language in a particular format – this will enable children to accurately communicate their thoughts and opinions.</p> <p>If necessary, revisit key scientific information as well as planned retrieval questions. The use of ‘hooks’ at the beginning of lessons to revisit objectives.</p>	<p>Expressing themselves and sharing their thoughts and opinions orally.</p>	<p>Use stem sentences to provide subject specific language in a particular format - this will enable children to accurately communicate thoughts and feelings.</p> <p>Use alternative recording devices e.g. whiteboards/Chromebooks to allow children the option of sharing their thoughts and opinions in an alternative way.</p> <p>Allow children processing time when asking them a direct question. Some children need upwards of 10 seconds to process a question before they can answer.</p>
<p>Understanding of subject specific vocabulary.</p>	<p>Pre-teach subject specific vocabulary and subject specific vocabulary which could be ambiguous (‘results table’, ‘culture’). Definitions and visual aids.</p>	<p>Acquiring, comprehending and using scientific language.</p>	<p>Use visuals to support children in using the correct names for apparatus. Create flashcards with the common name for an object on one side and the scientific name on the other.</p>
<p>Difficulty in producing accurate pieces of writing e.g. explanatory text of a scientific concept.</p>	<p>Use writing frames, ‘fill in the blank’ sentences, sentence starters, vocabulary mats, visuals. Children can record work differently, e.g. ICT (PowerPoints, Word documents, videos, etc.)</p>	<p>EAL pupils may find it difficult to access resources/learning</p>	<p>Use a reduced number of simple instructions which are supported by visuals. Appropriate modelling to aid understanding.</p>
<p>Understanding ‘abstract’ scientific concepts such as electricity/air resistance</p>	<p>Where possible, begin lesson with concrete resources before you discuss the abstract scientific reasoning.</p> <p>Examples: make a circuit before you discuss the concept of electricity, drop different shapes before you discuss air resistance.</p>		<p>Differentiated written resources can be supported by visuals and could be translated using Word (Teacher click Review – Translate – Translate Document) to translate documents and open in a new window.</p>

<u>Sensory and Physical</u>		<u>Social, Emotional and Mental Health</u>	
<u>Support Challenges for SEND</u>	<u>Provision for SEND</u>	<u>Subject Challenges for SEND</u>	<u>Provision for SEND</u>
<p>Fine motor skills/physical difficulties.</p> <p>Sensory/physical difficulties accessing specific environments during scientific experiments.</p> <p>Children with a visual impairment may find it difficult to view text/images/scientific equipment.</p>	<p>Teachers to be proactive in identifying appropriate resources/apparatus for each individual child's needs. For example, when conducting an experiment, some children may require a larger measuring tape/thermometer.</p> <p>Ensure any sensory difficulties are considered at the point of planning and appropriate alternative arrangements are made. For example, if a child will find the texture of certain materials overwhelming, resource an alternative.</p> <p>Ensure the font size used in resources matches the specific font size specified in the child's report provided by outside agencies. Enlarge images to an appropriate sizes to aid access. Consider adapted resources e.g. measuring cylinders with enlarged scales.</p>	<p>Low self-esteem in scientific ability.</p> <p>Difficulties with social skills may result in children finding group work challenging.</p> <p>Understanding safety issues/concerns that arise during scientific experiments e.g. taking care with thermometers.</p>	<p>Showcase different work and a focus on the creation process rather than on the end result. Praise effort rather than ability. Make use of learning objectives which focus on specific scientific skill (e.g. focus upon the accurate plotting of a graph rather than the neatness of the bras coloured). Pre-teach key information and vocabulary to prepare children, share knowledge and raise self-esteem.</p> <p>Carefully consider seating arrangements during group work (supportive peers). Additional adult support if necessary. Access to usual aides (e.g. ear defenders).</p> <p>Pre-teach safety concerns (social stories, consequential visuals, clear behaviour expectations).</p>