



SEND Provision Science

Adaptations we make to teaching strategies and the learning environment to ensure that all pupils have the best possible outcomes in science.

The Four Broad Areas of Need

Cognition and Learning

Within the SEND Code of Practice, Cognition and Learning needs are defined as support for learning difficulties when children and young people learn at a slower pace than their peers, even with adapted support. Learners with SEND may have greater difficulty than their peers in acquiring literacy and numeracy skills, or in understanding concepts, even with appropriate differentiation.

Communication and Interaction

With regard to the SEND code of practice a child or young person has a communication and interaction need if they have speech, language or communication difficulties. This may be because they have difficulty saying what they want to, understanding what is being said to them or they do not understand or use social rules of communication.

SEMH

Children and young people may experience a wide range of social and emotional difficulties, which present themselves in many ways. We recognise that all behaviour is a form of communication. These may include becoming withdrawn or isolated, as well as displaying challenging, disruptive or other concerning behaviour.

Physical and Sensory Needs

Referring to the SEND Code of Practice Definition children are considered to have a sensory or/and physical need if they require special educational provision because they have a disability which prevents or hinders them from making use of the educational facilities generally provided. These difficulties can be age related and may fluctuate over time.

<u>Communication and Interaction</u>	<u>Cognition and Learning</u>
<p>Recognise that the language of science may be challenging for many children - for example: The specific scientific use of everyday words such as 'weight', or terms specific to science, such as 'electrical circuit'.</p> <p>Pre-teach key vocabulary, then ensure multiple and regular exposure to these words including referring to knowledge organisers and make them clearly visual in the classroom environment.</p> <p>Label equipment with a symbol and word (dual coding)</p>	<p>Prepare the children prior to the lesson with a preteach introducing key knowledge/vocabulary.</p> <p>Consider the accessibility of science demonstrations.</p> <p>Plan the demonstration area so that it is clearly laid out, uncluttered and gives all children a clear view.</p>



<p>Explicitly teach the meaning of key scientific vocabulary in lessons</p> <p>Check children's' understanding by inviting them to reformulate explanations in their own words or in other ways. For example, after an investigation of floating and sinking, ask children to explain what happened using diagrams, as well as explaining it orally or in writing.</p> <p>Use vocabulary flashcards and prompts.</p> <p>Use real objects as a starting point for developing the concepts and the language needed to describe, discuss and explain what pupils have observed or experienced.</p> <p>Give children time to process and formulate their answers to questions before responding</p>	<p>Use the display and whiteboard to show the focus of each lesson and how it fits in the sequence of lessons.</p> <p>How do lessons link together to develop their scientific knowledge?</p> <p>Use symbols, images or objects to make it more accessible.</p> <p>Encourage the use of mind maps/pictures/flow charts.</p>
<p><u>Social, Emotional and Mental Health</u></p>	<p><u>Physical and/or Sensory</u></p>
<p>Consistency of approach reduces children's anxiety - it allows children to predict what will happen.</p> <p>Provide an overview of the lesson elements so the children know what is coming.</p> <p>Pre-teach the child some of the elements of the lesson etc.</p> <p>Consider groupings - prepare the children by ensuring they are aware of the group they will be working in. Assign roles to each member of the group with a clear outline of job roles.</p> <p>You may need to specifically teach the skills of cooperation and interaction for practical work.</p> <p>When organising a practical session consider:</p> <ul style="list-style-type: none"> - how you establish investigation routines - the level of supervision needed - consider the resources available - does there need to be 	<p>Check safety procedures are understood. • Label new equipment and processes to help develop vocabulary.</p> <p>Colour water so it is easier to see.</p> <p>Consider ventilation and positioning of children for anything that may have an odour.</p> <p>Pre-teach showing/experiencing anything that may have sensory implications -e.g. videos of heart, handling materials.</p> <p>Ask for specialist advice on equipment for children with particular SEND e.g. tactile ridges on measuring glassware for children with a visual impairment.</p> <p>Consider children hard of hearing when teaching sound - follow guidance to develop children's understanding of how sound travels.</p> <p>Use of sensory aids as part of usual provision e.g. gloves, audio/visual support.</p>



close supervision? Do some resources need limiting? - how will resources be organised in the classroom - from a central point or at the table? - how the task can be broken down into manageable steps and the best way to present any instructions e.g. some children prefer diagrams, others a checklist.

Opportunities to develop social skills including being taught these discretely to support engagement in group work and collaborative learning.

Use of PSHE to discuss healthy relationships, promote wellbeing and explore emotive topics within learning

Consider pupil sensory audits and adaptations.

Use of standing desks, wobble boards, flexibility over where children write, writing slopes or other appropriate tool.

