



SEND in Science



Cognition and Learning		Communication and Interaction	
Subject Challenges for SEND	Provision for SEND	Subject Challenges for SEND	Provision for SEND
Understanding the content. Understanding of instructions. Retention of skill application. Some children may find a written outcome challenging	Pre-teaches for key vocabulary/skills/concepts. A demonstration of how to use equipment safely and effectively should always be given. The task should be modelled to children before they have a go. Video clips and visual prompt sheet. Captains and mixed ability partners/groups. Chunk the task up for children to prevent cognitive overload (small, manageable and achievable steps). Use of other children to model examples. Activities that re-visit prior learning should be used frequently to promote retention of a skill or concept. Use a range of outcomes to allow children to demonstrate their learning, e.g. use of iPads, images.	Understanding of instructions. Model and communicate ideas through talking. Team work and group tasks with social interaction. ASD pupils may struggle to cope with a change of member of staff in a different working space.	Video clips and visual prompt sheet. Children work with a captain or in pairs Children can communicate their ideas through drawing, templates or through computer software. Differentiate the learning outcome or task in order to meet the children's needs. Differentiated support or resources to enable every child to learn in a safe and valuing environment. Opportunities for children to work with a peer that they feel comfortable with or alone if need be. Model effective team work and collaboration skills. Model interaction skills. Structure and routine to be kept the same in taught lessons.

Physical and sensory		Social Emotional and Mental Health	
Subject Challenges for SEND	Provision for SEND	Subject Challenges for SEND	Provision for SEND
Hearing Impairment-Working environments can be noisy and busy. Visual Impairments – Seeing equipment and how to effectively use it and what is expected of them. Those who struggle with hand-eye coordination and spatial awareness. Sensory overloads- Overstimulation with different choices/ equipment. Multiple and complex disabilities	Be aware of position of pupils when giving instruction Individual risk assessment for pupil in regards to using equipment where there might be a risk of injury if not monitored. Pupil positioned under a light source. Additional supervision as required. Adapted resources to support the needs of the pupils Awareness of pupils who may struggle with use of equipment. Lessons should be adapted accordingly to include every child and so that every child can succeed. Children to be able to work in a quiet area if required. Be aware of children's sensory profiles which may cause triggers. Set areas of work clearly marked, differentiated equipment...and differentiation by outcome, setting different challenges in tasks – all most aiming high etc... Use of the engagement model to assess pupils not engaging in subject specific study.	Concentration levels. Understanding of instructions. Pupils may struggle with change. Disengagement in tasks that they feel they can't do or find difficult. Pupils may lack self-confidence and self-esteem in their ability and work. Pupils may find it difficult to regulate their emotions if a product doesn't turn out how they wanted it to. Pupils may take constructive criticism personally. Disengagement with tasks that don't have meaning/ resonate with them personally.	Engage with praise and reward, quick burst of activities less teacher talk. Video clips and visual prompt sheet. Captain and ability groups. Inform children of the change prior to it happening and explain the small changes that will take place and remind them of all the things that will remain the same. Use of praise and encouragement. Highlight their achievements (work on display). Allow for children to be captains/lead a group when they are confident with a skill/concept. Model failed attempts and how to deal with this. Break tasks down into small, achievable tasks. Remind pupils of when they used the skill successfully. When giving feedback identify two things that the child has done well and one thing for improvement. When giving the improvement explain the impact that this will have and how to improve it. Talk to children about how they feel and find out likes and dislikes. Their interests

			can be linked into the task to motivate and engage pupils. Linking in with university and external providers, trips, visitors
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Non-Negotiables that need to be in place in all lessons/classrooms when teaching Science.

1. Key vocabulary is explained and displayed
2. Differentiation is key to meet every child's needs (support/outcome/resources).
3. Memory retention activities to enable pupils to re-cap and revisit prior learning.
4. Modelling of tasks/skills.