



Helping Light shine for all in Science

Early career Framework 2022 states that teachers should provide opportunity for all pupils to experience success, by adapting lessons, whilst maintaining high expectations for all, so that all pupils can meet expectations.

Intent –What are we aiming for children with SENs to achieve in this subject?

We must be aware that a child's scientific ability and enquiring mind is not directly related to their writing or maths ability.

- Children should be given the opportunity to create their own investigations with support appropriate to their SEN learning barriers.
- Children must be given the opportunity to ask their own questions as well as complete teacher-led enquiries.

Implementation –What amendments are made to the subject in order to help children with SENs to achieve?

Supporting students with special educational needs (SEN) in the context of primary school science is imperative to ensure equitable access to education and the realisation of their full potential. At St Luke's we aim to teach science so that both substantive and disciplinary learning builds year on year where learning is consistently revisited helping to secure the knowledge of all children (including SEND). In order to revisit the children's learning we have designed pre-learning tasks to revisit previous year group's science objectives to enable children to build on long term memory and extend their knowledge each year. At the heart of our science curriculum lies our science shapes and the different enquiry types meaning children get a rich science experience whilst addressing the national curriculum objectives that give a visual representation. Children are exposed to scientific vocabulary in our EYFS year group to ensure children embed the scientific vocabulary they require as a foundation for further learning in KS1 whilst also developing their understanding of the world. The organisation of our science curriculum has been linked to our whole school curriculum themes, where natural links are possible, to allow children to fully embed their learning. Science STEM days are also used as stand-alone learning in order to further engage children with science and Develop a love for learning. Below are some ways we help to adapt for SEND children:

Instruction:

Individual Education Plan (passport):

Collaborate closely with special education professionals and parents to formulate a meticulously tailored passport for each student with SEN. This should delineate the student's precise learning requirements, establish clear educational objectives, and prescribe targeted strategies for achieving these goals within the domain of science education and across other academic subjects.

Recap activities:

All children are exposed to recap activities that revisit children's Science learning. These recap activities are quick recaps that will help to consolidate children's learning and help teachers identify any gaps in learning.

Visual Aids:

Integrate visual aids, encompassing diagrams, charts, and illustrative imagery, to bolster the understanding of students who may confront challenges associated with verbal or written communication. The judicious use of visuals can concretise abstract scientific concepts and render them more accessible.

Hands-On Activities:

Exploit the inherent advantages of hands-on experiments and activities, as they often resonate effectively with students. Provide opportunities for tactile exploration and experimentation, thereby fostering a deeper engagement with scientific principles.

Sensory Supports:

Acknowledge that some students with SEN may grapple with sensory sensitivities or impairments. To address these concerns, create a conducive learning environment that minimizes sensory disturbances and ensures students' comfort.

Scaffold Learning:

Employ a pedagogical approach that deconstructs intricate scientific concepts into smaller, digestible components. This methodical scaffolding enables students to progress incrementally and build confidence as their understanding grows.

Small Group or One to One Support:

Recognise the varying degrees of severity among students with SEN. Some may derive substantial benefit from personalised, small-group, or one-on-one instruction, which permits a more focused and tailored approach to their unique needs.

Positive Reinforcement:

Uphold a supportive atmosphere wherein students with SEN receive affirmative feedback and encouragement. This practice is instrumental in bolstering their self assurance and motivation to actively participate in scientific pursuits.

Flexible Assessment:

Revise assessment methodologies to accommodate the distinctive abilities and challenges of each student. Allow for alternative modes of demonstrating knowledge, such as oral presentations, visual projects, or interactive assignments.

Inclusion:

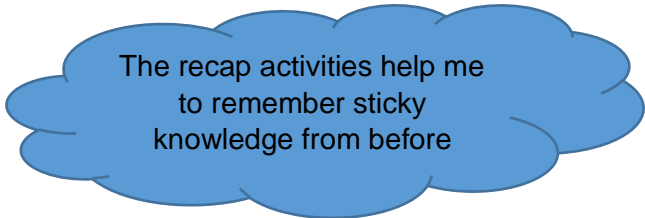
Foster an inclusive classroom environment that encourages acceptance, appreciation, and support for all students, regardless of their abilities. Such an environment nurtures engagement and inclusivity in scientific activities.

Regular Communication:

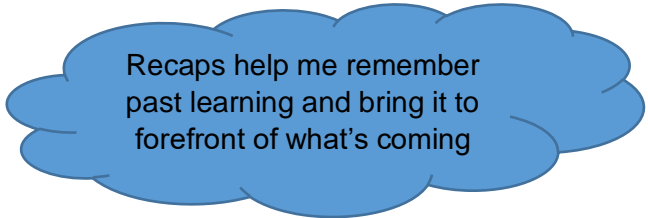
Maintain open and frequent channels of communication with parents, special education professionals, and auxiliary support staff. This ensures the synchronization of efforts and a holistic approach to addressing the educational needs of students with SEN within the realm of primary school science. It is essential to bear in mind that every student with SEN possesses a unique profile of strengths and challenges. Regular assessment, adjustment of strategies as needed, and active engagement with students, parents, and specialists are imperative to deliver the most effective support in the context of primary school science education

Impact- What is the impact of our reasonable adjustments upon our children?

Our SEN children develop a love of science, can talk confidently, and they experience success across the subject. As a result of the adjustments to our curriculum, SEN children progress at the same rate as their peers (see data sheet). Our children are our voice and here are a few things that they have said about the subject and the culture of science at St Luke's.



The recap activities help me to remember sticky knowledge from before



Recaps help me remember past learning and bring it to forefront of what's coming