SEND IN SCIENCE

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

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

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 SEND learning barriers.

Children must be given the opportunity to ask their own questions as well as complete teacher-led enquiries.

Strategies to scaffold Learning

How can I support learners who struggle to access lessons because of literacy or numeracy difficulties?

- Provide visual aids to enable learners to identify diverse places, people, resources and natural and human environments.
- Provide a word and/or picture bank for the learner to refer to during guided and independent activities.
- Use strategies such as modelling, demonstrating and imitating to support learners in understanding the step-by-step processes.
- Revise facts and key vocabulary from prior sessions.
- Children to work in mixed ability groups when conducting scientific investigations with teacher/TA overseeing groups and helping when required.
- When writing up investigations, children can be supplied with an investigation sheet. Key vocabulary and picture clues to be used to help them to organise their ideas and findings clearly.

How can I support learners who struggle to retain vocabulary?

- Provide visual word banks that are accessible to the learners.
- Ensure that the vocabulary becomes embedded by referring to it regularly during lessons and whilst modelling.
- Child-friendly Subject Knowledge Organisers (with picture prompts) to be supplied to SEND children to keep in their science books for reference throughout. This will help to remind them of key vocabulary

How can I support learners who may become overwhelmed with all the new information?

- Spend time with these children.
- Discuss what they do understand and explain any language, facts or ideas they are finding challenging.

How can I support learners who struggle with attention?

- Reflect on the positioning of learners within the classroom to maximise their engagement. Some learners will benefit from working and interacting with selected others. A calm environment will help minimise distractions.
- Consider adapting the lesson to break it into chunks that permit time for paired or group talk and allow tasks to be completed across manageable stages.
- Pre-expose learners to the content of the lesson by sharing with them any resources to be used as well as the content of the lesson, perhaps the work of an artist they are learning about or an example of the kind of outcomes they will produce. This will support learners to engage in the processes.
- Giving time for learners to look back through their Science books to make connections to what they already know, which in turn can help nurture motivation.
- Allow movement breaks if and when necessary and give learners classroom jobs such as handing out a resource. This will support learners who struggle with self-regulation.
- All learners should routinely clean and tidy away the equipment they have used and time for this needs to be built into lessons, as it is a useful tool for encouraging independence as well as managing transitions.

How can I support learners who need additional time to develop conceptual understanding?

- Provide opportunities for small group learning either before (pre-teach) or during the lesson. This will support learners and allow time to ask questions or explore resources alongside adult intervention. These opportunities are part of the repetition process needed to maximise capacity to build up conceptual understanding.
- Take time to model and demonstrate each element of a process, allowing learners to develop their understanding through a step-by-step approach. This will benefit all learners as it allows for an active participatory approach.
- Showing outcomes from the previous lesson's work can be a useful memory aid.
- Have visual aids in the form of worked examples that the learners can have to hand when completing independent tasks.