SEND in my subject Overview 2023-2024

Subject: Science

Intent for SEND learners:

- To give all children a strong knowledge and understanding of the world around them whilst acquiring specific skills and knowledge to help them think scientifically.
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- To provide a science curriculum which encourages children to ask questions, helping them to become independent and confident enquiry-based learners throughout their time at school and beyond.
- To provide a stimulating environment, where children can work in an investigative way and can communicate their findings in a variety of ways.
- To provide rich and engaging science lessons which provide challenge for all learners

Universal strategies:

- WORD mats and vocabulary for each topic given.
- Working walls give pupils easy access to key learning points.
- Initial lessons of each topic make links back to previous year group.
- Revisit key knowledge covered in previous topic and use geography assessment quiz to check understanding before teaching the next topic.
- Working Walls to support with key vocabulary and retrieval of key information
- Live marking gives immediate feedback and removes the need to read comments. Ticking the objective gives a clear indication to the children if they have met the learning outcome, If they have not, they are given the opportunity to correct their work to achieve the objective.

Reasonable adjustments:

- Provide alternative ways to record responses i.e. use Science dojo page to record non written learning.
- Differentiate tasks either by the scaffolding of the activity or by outcome.
- Pre Teach key vocabulary
- Working in a supported group
- Visual Cues
- Flexible teaching arrangements for individual pupils.

How we support SEND learners within our curriculum:

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Cognition and Learning:	Communication and interaction (ASD):	Social, emotional and mental health:	Sensory and physical:
Flexible Teaching Arrangements • Using small group work to enable pupils to develop their understanding. • Consider suitable approaches to match Childrens support plans. Help with processing language, memory and reasoning skills. • Start with 'concrete' items to model the concept being learnt. • Focus on small steps so that the children are 'guided' in their learning. • Structure lessons with starter, main and plenary activities. Help with processing language, memory and reasoning skills. • Ensure instructions are clear. • Break instructions down into small steps for children to follow, particularly during practical learning. • Ask the class to explain in their words what they have to do during a practical. • Think about questioning and how it can support children with their learning. Help in understanding ideas, concepts and experiences when information	Help in acquiring comprehending and using language: • Use word banks for key words • Working Wall displays including labelled diagrams and matching pictures. • Using flashcards or symbols to re-enforce scientific vocabulary Help in articulation • Verbalise new language and add to a word bank • Practice new words in repetition • Enable opportunities to discuss meanings in pairs and group work. Students Communicating their ideas and understanding • Consider a variety of methods e.g. brainstorms, mind maps and scaffolded learning. Adopting a multisensory approach • Use a wide range of communication methods including speech, graphs, charts, pictures, diagrams, cameras, computers and symbols. Concept acquisition and explanation • Plan using small steps for progress. • Use the structure of the lesson to support the concept such as – starter, main input, plenary.	• Celebrate, give praise and display good work • Ensure routines are followed. • The choice of compatible working groups rather than random groups. • Choose Relevant Motivating Tasks to maintain attention and concentration • Try to incorporate student's interests into lessons where possible • If a student has a special skill relevant to science get them to demonstrate and talk about it to recognise their own importance and ability. • Use visuals to segment the lesson into manageable chunks • Make sure children are well prepared for unfamiliar learning environments – For example school trips or if you are using a space you wouldn't usually use. • Plan time for children to discuss answers before recording or verbally feeding back. Reduce Reliance on Memory and reduce cognitive overload. • Use working walls to revisit learning previously taught. • Use mnemonics and songs to help pupils remember things.	Flexible teaching arrangements Appropriate teaching seating and lighting Adaptations to the physical environment of the school • Accessibility for wheelchairs, walking frames • Equipment/ resources situated at accessible heights Specific requirements for any hearing-impaired students (consider background noise) • Multi sensory approaches to learning- Build on pupils preferred learning styles when explaining different concepts by using different media i.e. diagrams, stories, videos, mind maps, acting out. • Audio recorders could be used to gather information rather than written notes. ICT can be used to make science lessons more accessible to all. • Capture images and processes • Monitor activities and investigations • Carry out research resent work in a variety of formats Reduce Reliance on Memory and reduce cognitive overload • Use working walls to revisit learning previously taught.

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cannot be gained through first hand sensory or physical experiences. • Use a wide range of teaching methods. • Think about the key concept you are teaching and focus on this. Help in organising and co-ordinating spoken and written English to aid cognition. • Effectively use videos, displays and sound tapes to communicate children's ideas. • Consider the layout of worksheets including the font, colour of the paper etc. Help with sequencing and organisational skills. • Sequencing – in practical instructions or in the stages of a process. Recognise that language of science may be challenging for many pupils. • Plan to teach new language explicitly	• Use scaffolding and modelling to support teaching.		• Use mnemonics and songs to help pupils remember things.