



Strategies for supporting pupils with Special Educational Needs and Disabilities in Science lessons

| How we will help your child | |
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| Anxiety | <ul style="list-style-type: none"> ● A trusting relationship will be nurtured between all adults in the classroom and the child. This relationship will enable the adult to know any triggers or changes in behaviour that may be caused by the child feeling anxious. ● Responding or giving opinions/thoughts is non-compulsory in our science lessons so that individual children do not feel as though they are on the spot. ● If children feel overwhelmed by the classroom environment, they can choose sit on the periphery of the group, use a quiet break out space or take their learning outdoors. ● Predictions are discussed before experiments are carried out so children are prepared for any reactions/noises. ● Pre-teach key scientific vocabulary. |
| Autism Spectrum Disorder | <ul style="list-style-type: none"> ● Visual timetables are used to support the organisation of the Science lesson. ● Visual cues/resources are used to support the child as necessary throughout the session. ● A learning space is provided that best suits the child. ● Sensory breaks are given whenever necessary. ● Staff are aware of children with particular sensory needs and have prepared resources/equipment to support them as well as allowing children to meet their own sensory needs e.g. wash hands. ● Predictions are discussed before experiments are carried out so children are prepared for any reactions/noises/mess etc ● Scientific vocabulary is integrated into the lesson throughout, with visuals to support new language. ● Staff avoid asking specific or direct questions that could make the child uncomfortable. ● Time will be taken to build a strong and trusting relationship with the child so that the children feel safe and secure. ● The children will have the choice to work independently or as part of a group, depending on resources available. ● The staff are prepared to recognise a change of behaviour as a need for communication and will be prepared to address this with care and a calm attitude. |
| Dyscalculia | <ul style="list-style-type: none"> ● Should the situation arise where maths learning is integrated within a Science session, staff will be aware of the needs of all children who may require extra support. ● Written instructions and diagrams will be provided. ● Pre-made graphs with some data already completed made by provided. ● Visual aids will be available for children if they require it. ● Staff are prepared to pace the lesson to suit the needs of the children and are aware that some children may require repetition. ● Rulers and highlighters will be used to visually support the drawing/organisation of any graphs, tables or charts. ● Peer and adult support will be built into the lesson throughout to support any corrections with recording dictated numbers/number formation. ● Offer a range of ways to record learning e.g. photos, presentations (oral and visual), working in groups etc. ● Staff are aware that should a child become anxious or overwhelmed it could be that resources are not accessible - in this case, resources will be scaffolded. |
| Dyslexia | <ul style="list-style-type: none"> ● Printouts will be on different coloured paper and any laminated vocabulary will be laminated in matt. ● A text font size of 12 or above is used for any work sheets/PPT presentations. ● Questions will be short and clear with visual representations (diagrams, pictures, illustrations) to support. ● Data, charts and diagrams are clearly organised and structured. ● Screen backgrounds will be an appropriate colour when children are presented with a slideshow. ● Resources/PPTs will use the school dyslexia friendly font. ● Offer a range of ways to record learning e.g. photos, presentations (oral and visual), working in groups, labels, posters etc. so writing does not interfere with showing knowledge. |
| Dyspraxia | <ul style="list-style-type: none"> ● A large learning space will be provided if possible, e.g. end of a table or a breakout space. ● Instructions can be written out for the child, using different colours for each line. ● Diagrams will be provided before labelling/editing. ● Children can leave the Science session early to ensure there is time to move in and out of the classroom (break times, lunchtimes, toilet trips etc.). ● Children can move around the classroom whenever necessary. ● When using scientific equipment, an adult or supportive peer will provide demonstration of how to successfully use the equipment. ● Adults will ensure they are watching closely for signs of distress and provide a quiet, calm learning environment ● Alternative technologies to be used such as iPads, talking tins etc. ● Expectations will be clearly addressed prior to the lesson starting. ● Children will have plenty of time to prepare for transitions such as the end of the lesson, change of activity etc. |

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| Visual Impairment | <ul style="list-style-type: none"> Anything that is being displayed (PPT presentation) will be large and easily visible from anywhere in the classroom. Children will be seated towards the front of the classroom to ensure they have a clear line of vision, especially during the input where the whiteboard or an experiment or resources may be the main focus. Familiarise a child with the equipment being used in an experiment beforehand e.g. let them handle it. Children will be able to 'take a break' from their Science learning whenever needed to ensure they are able to focus visually and avoid fatigue. Images and text within any printed work will be enlarged with the recommended font size and chosen school font. Children will be provided with a thicker and darker pencil to ensure their writing is clear. |
| Experienced Trauma | <ul style="list-style-type: none"> The Science learning environment will be a calm, trusting place where children feel supported with their emotions at all times. Adults working with the child will be aware of any triggers e.g. sights, smells, textures and provide ways to further support the child within the classroom e.g. prior preparation for noises/mess etc. If the child feels overwhelmed or uncomfortable they can leave the room and go to a safe space. There will be a consistent approach to expectations and behaviour that are based on positive praise. |
| Tourette Syndrome | <ul style="list-style-type: none"> Adults will listen and respond to the child with support and understanding. A structure will be provided (tick list) to support the learning taking place, this will be differentiated to the main activity and include the main elements needed to aid the child's attention. There will be understanding that the activity may not be completed. Be aware that tics can be triggered by over-stimulation, excitement, noise, change of routine, relaxation and all of these things are potential outcomes of a Science session. Staff are mindful that a tic is an involuntary response so as opposed to using language such as 'stop', the event should be dealt with calmness and sensitivity. Depending on the frequency and severity of tics, some experiments may need to be adapted to accommodate spillage and experiments will be closely supervised. |
| Speech Language and Communication Needs | <ul style="list-style-type: none"> Visual timetables, signs and symbols will be used to support communication within the Science lesson. Visual displays (Science working walls) will be used to support understanding of key information. Non-verbal clues will be used to back up what is being said. Makaton signs will be used to support children's understanding. Any verbal instructions/information will be at a slow, clear pace that matches the child's understanding. Adults will regularly check the child's understanding so that adults can identify any misconceptions or misunderstandings. |
| Cognition and Learning Challenges | <ul style="list-style-type: none"> Concrete resources and visual representations will be given to the child to support any mental and written calculations needed. Positive praise will be used so that the child knows they are doing well. Encourage/support and praise independent learning. Self-checks can be used at each stage of a task so that children are aware of the tasks required of them and their achievement of reaching this. Key vocabulary and ideas will be addressed regularly throughout the Science lesson to check understanding. Information will be repeated clearly, varying the vocabulary used. PPTs will be simple and uncluttered with key information highlighted. Children will be provided with a 'work-buddy' during peer activities/opportunities. Offer a range of ways to record learning e.g. photos, presentations (oral + visual), working in groups, labels, posters etc |
| Toileting Issues | <ul style="list-style-type: none"> Children will be able to leave and return to the classroom whenever necessary. A seating arrangement will be made so that the child can enter and leave the classroom discreetly. All adults and children within the classroom environment will respect the child's privacy. Some children have an Intimate Care plan. |
| Hearing Impairment | <ul style="list-style-type: none"> A suitable working space will be agreed upon between the teacher and child in a safe, private conversation before the lesson. Adults within the classroom will (discreetly) ensure the child's hearing aid is turned on before the lesson begins. Adults will ensure they are facing the child when they are talking/giving instructions. Questions and any information given by peers will be repeated clearly to ensure the child has heard what their peers have asked/said. Children will be seated towards the front of the classroom to ensure they have a clear line of vision, especially during the input where the whiteboard or science equipment may be the main focus. Provide written and pictorial instructions. |
| Attention Deficit Hyperactivity Disorder | <ul style="list-style-type: none"> A non-confrontational approach will be used in every aspect of the Science lesson. Verbal praise is given whenever necessary to help boost confidence and self-esteem. Use of pictorial representations to support the learning taking place. Use of concrete resources to support new concepts. Ensure all rules are consistently implemented and revisited so that this becomes routine. Have a secure 'time-out' area that the child can visit if needed. Consider clear rewards to reinforce any positive behaviour. Ear defenders can be used to allow for breaks when the child is feeling over-stimulated. If support is needed for practical activities, an adult to be on hand to support but not lead/take over. |
| Physical Needs | <ul style="list-style-type: none"> Experiments /equipment may need to be adapted to allow access for all. |

For children with specific needs not mentioned above a tailored personalised approach will be adopted, this will be developed in consultation with parents and other professionals.