

Provision Map for STEM based subjects

In planning lessons we need to consider ways of minimising or reducing barriers to learning so that all learners can fully take part and learn. In some activities, learners with SEN and/or disabilities will be able to take part in the same way as their peers. In others, some modifications or adjustments will need to be made to include everyone.

For some activities, we may need to provide a 'parallel' activity for learners with SEN and/or disabilities, so that they can work towards the same lesson objectives as their peers, but in a different way. Occasionally, learners with SEN and/or disabilities will have to work on different activities, or towards different objectives, from their peers.

Area of need	Provision/adaptations	Computing
Dyslexia	Working memory: • Re-cap of previous learning to enable working memory. This could be with a chart to build up each week's key learning in a very visual way. • Re-teaching of the main aspects of previously taught lessons with key information to ensure confusion does not occur. • Learning presented in small chunks. • Access to any visual aids from previous relevant learning. • Present information in a visual form with only the key information for the learner to remember. Processing time: • Additional time to talk through ideas and concepts. • Allow plenty of time for recall. • Repeat instructions using the same language New Vocabulary: • Word mats with pictorial aids if able. • Written prompts • Stories presented in alternative styles such as storyboards. • Exaggerate new vocabulary by separating syllables • Use of mnemonics to help remember new vocabulary	• Computer monitors are positioned to reduce glare. • Interactive whiteboards are non-reflective to reduce glare. • Provide assistive resources, such as templates or diagrams, to support children's input. • Demonstrate software in short, achievable steps

	- Remember that STEM subjects have a language of their own and learning new STEM vocabulary can be a challenge. Words like difference, multiply, and divide can be confusing as they mean different things in a maths context. Multi-sensory: - Use of talk partners - Visually draw concepts to aid understanding - Coloured overlays (also think about the colours of any IWB presentations) - Larger font where able Sequencing: - Repeat instructions and information - Sequencing frames - Written scaffolding to aid recording Recording: - Alternative methods of recording information including audio/visual to ensure key concepts are recorded. - Paired writing	
DCD	- Adaptations when motor skills are being used e.g. recording of information. - Adjustable height desks or standing desks can be used - Peer buddy within lessons - Specialist equipment available - Alternative methods of recording using audio/visual resources - Reduction of requirement to use fine motor skills such as pre-cut resources.	- Make sure pupils with motor impairments have appropriate assistive technology and software to support them and enough space to use it. - There should be adequate space at computer desks for pupils to work off-screen, collaboratively and on paper.

		• using head switches, touch screens, or an alternative mouse or keyboard
Autism	• Clear sequencing of lessons • Alternative methods of recording information such as use of technology • Task Management boards • Adapted ways of teaching concepts such as diagrams, stories, acting out processes, computer simulations, concept mapping, etc. • Simple audio recorders can be used instead of written notes during investigations or field trips.	• Pupils on the autistic spectrum may become deeply involved in working in isolation on a computer. They will benefit from clear preparation and support when returning to a group. • Children on the ASD spectrum may struggle and need to be shown how to deal with, abusive behaviour such as cyber-bullying – helping to maintain their psychological well-being.
SEMH	• Pre-teach of key concepts • The transition from whole-class to group or independent work, and back, is clearly signalled to allow time for processing. • Support to understand that other people will have different views. • Circle time discussions around different issues. • Clear expectations around behaviour when there are disagreements with others. • Silent debates where learners are requested to put their views on post it notes to share their ideas to avoid conflict. • Thrive support to focus on social skills to enable discussions. • Assign learners particular roles within discussions so they have a clear purpose in the group and keeping them focussed.	

	• Small groups supported by an adult to facilitate conversations.	
ADHD	• Standing desks • Adult support at the beginning of the lesson to ensure focus and understanding of key concepts. • Laptop to record any written work to enable the focus to be on understanding the concepts and belief systems. • Small chunks of information with key concepts in pictorial form. With limited calculations or questions on a page. • Avoid unnecessary visual stimuli. • Practical activity to remain physically active where possible. • Re-cap of previous learning to organise thoughts before the lesson. • Small tasks to ensure success. • Encourage learners to connect information or concepts being presented • Repeat directions individually • Use visual maps • Use flash cards as visual aids • Learners with ADHD tend to respond better to concrete learning experiences. They often have high levels of creativity and welcome the chance to learn independent.	• Demonstrate software in short, achievable steps
Dyscalculia	• Some learners may find the organisation of ideas into a logical way difficult and therefore will need support for this. • Adaptation of tables, data etc and support given for understanding. • Use of IT equipment to support understanding of concepts.	• using symbol-processing software or a picture communicator.
Speech and Language	• Language is to be clear, unambiguous and accessible. • Key words to be written up with meanings/visual aids. • Instructions are given clearly and reinforced. • Careful preparation to ask questions in a variety of ways	•

	enabling learners with S&L difficulties to answer open ended questions. • Learners are allowed time to process and then answer the questions. • Adults to support learners to contribute to lessons. • Some learners will need tasks to be broken down into smaller sets of instructions. For example, give the first instruction, then once that is completed give more information – rather than presenting all the task requirements in one instruction.	
Moderate Learning Difficulties/Global Delay	• Tasks in short chunks to allow for processing and plenty of opportunity for embedding of learning. • Alternative ways to record their ideas such as audio/visual. • Use mind maps, bullet point lists, storyboards to record their learning. • Re-cap of previous learning to enable working memory. This could be with a chart to build up each week's key learning in a very visual way. • Learning presented in small chunks. • Access to any visual aids from previous relevant learning. • Present information in a visual form with only the key information for the learner to remember. • Scaffolded work through use of writing frames. • New vocabulary selected for the key words and explicitly taught in pre-teach. • Show the learner a practical example of what you need them to do giving concrete examples. • Simple audio recorders can be used instead of written notes during investigations or field trips.	• Choose resources and tasks that support alternative ways of communicating, eg presentations that use relevant digital video- or audio-editing software
Physical disability	• Alternative methods of recording their learning.	• adjusting the screen

	Specialist equipment e.g. tactile ridges on measuring glassware for learners with a visual impairment	resolution, or using a bigger screen, for children with a visual impairment.
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