

Science



Possible Adaptations to Provision for Learners with SEND

1. Evidence of adaptation to curriculum

- Make explicit to all learners what we are going to be learning at the beginning of each unit.
- Revisit prior learning to remember more in the long term memory.
- New scientific vocabulary is introduced to widen and deepen learning for all, encouraging an elaborated code and reducing the use of restricted code.
- Use of a range of questioning starting with closed, building towards open-ended.
- Pupils can access their own resources.
- Teaching assistant to assist learners with mobility issues on a one-to-one basis.
- Ensure that SEND learners can access this by removing any possible barriers for all.
- Language is clear, unambiguous and accessible.
- Key words, meanings and symbols are highlighted, explained and written up, or available in some other way. Instructions are given clearly and reinforced visually, where necessary. Wording of questions is planned carefully, avoiding complex vocabulary and sentence structures.
- Questions are prepared in different styles/levels for different pupils – careful preparation ensures all pupils have opportunities to answer open-ended questions. Alternative communication modes are used, where necessary, to meet pupils' communication needs, e.g. signing, Braille. Text, visual aids, etc. are checked for clarity and accessibility. For example, some pupils might require adapted printed materials (font, print size, background, Braille, symbols); some may require simplified or raised diagrams or described pictures.
- All forms of pupil grouping include pupils with SEND and/or disabilities. Manageable mixed-ability grouping or pairing is the norm, except when carefully planned for a particular purpose. Sequence of groupings is outlined for pupils.
- The transition from whole-class to group or independent work, and back, is clearly signalled. This is particularly helpful for pupils on the autistic spectrum.
- Pupils can see and hear clearly, as necessary: the teacher, each other.
- There is room for pupils with mobility difficulties to obtain their own resources, equipment and materials.
- Space is suitable for all pupils including those with mobility issues.

2. Evidence of adaptation to teaching style and strategy

- Adapt investigations to suit all pupils.
- Lesson objectives are made clear in pictures/symbols/writing, as appropriate. Objectives are challenging yet achievable. This will promote self-esteem and enable all pupils to achieve success.
- Overlearning techniques for committing to long term memory spellings, times tables, dates and facts, new vocabulary, questions and answers.
- Book and text choices reflect a range of learners.
- Mnemonics to remember key facts such as times tables and spellings, countries and capitals etc.
- Rhymes, songs, poems to appeal to a broad range of learners.
- Strategic teaching for answering different types of questions.
- Scribes, transcripts, extra time for reading comprehension.

- Pupils' own ways of learning and remembering things are emphasised.
- Pupils are encouraged to talk about how they achieved something. Dialogue is the key to successful assessment for learning. Teachers communicate in ways pupils are comfortable with.
- End-of-lesson discussions focus on one or more of the ideas explored and the progress that pupils have made towards them during the lesson. Pupils are encouraged to look back to previous work/photos/records to see how much progress they have made.
- Assessments are used for pupils to assess their progress – a range of recording methods is accepted.
- Visual prompts and routines are valuable for learners on the autistic spectrum, and many other pupils. Use paired talk before and during activities such as shared reading/ writing. This gives pupils the opportunity to reflect on and discuss ideas, before offering them in these contexts. Film and video are powerful tools to support learning, particularly in relation to storytelling. Carefully considered scaffolding of tasks for children to respond. (Build in support and independent parts of the task)
- Provide the children with a model to ensure the teacher's expectations for the session and task are clear.

3. Evidence of adaptation of teaching materials and resources

- Make available a range of accessible writing materials including, for example: chunky pencils, different coloured crayons, individual whiteboards and pens for writing in different contexts, pencil grips for pupils who need them.
- Scientific equipment is accessible to all.
- Manipulatives available for all children to enhance concrete understanding.
- Pictorial representations to enhance mathematical understanding.
- Computing resources prepared to enable all to access.
- Adapted resources for SEND.
- Handling artefacts and evidence.
- Adapt resources to conduct geographical fieldwork.
- Visual timetable for all children.
- Larger printed text for children with visual impairment.
- Traffic light cards for children who need more visual prompts.
- Literacy resources such as dictionaries, spelling cards, word banks, coloured overlays etc.
- Language is clear, unambiguous and accessible. Key words, meanings and symbols are highlighted, explained and written up, or available in some other way. Instructions are given clearly and reinforced visually, where necessary.
- Wording of questions is planned carefully, avoiding complex vocabulary and sentence structures. Questions are prepared in different styles/levels for different pupils – careful preparation ensures all pupils have opportunities to answer openended questions. Text, visual aids, etc. are checked for clarity and accessibility. For example, some pupils might require adapted printed materials (font, print size, background)

4. Evidence of adaptation of recording

- Teachers' responses to pupils' errors recognise, value and build on the thinking that led to them.
- Teachers anticipate misconceptions and plan for them.

- Teachers are clear about how to record information and focus on the learning as the most important aspect of learning.
- ICT used as an alternative to written recording.
- Use of coloured paper where appropriate to reduce brightness and aid reading.
- Increased font size and type where appropriate.
- Adjust equipment such as writing boards to ensure that pupils can access written recording.

5. Evidence of adaptation of / innovative use of support

- Pupil-teacher interaction where appropriate, pupils are allowed time to discuss the answers to questions in pairs, before the teacher requests verbal responses. Pupils with communication impairments are given: time to think about questions before being required to respond, time to explain, and respect for their responses to questions and contributions to discussions.
- Pre-teach vocabulary using first-hand experiences.
- Additional adults prepare pupils to contribute to feedback sessions, where necessary.
- Use support staff to check in with SEND children when working independently.
- Staff to adapt tasks in the lesson if children are finding work too challenging. (Provide extra resources, restructure the task, provide scaffolding, recapping instructions etc.)