

SEND across the curriculum

What do we do across school to support SEND needs?

Subject: Mathematics

As a subject leader, how do you ensure the needs of SEND pupils are met within your subject? (Consider planning and delivery)

- Awareness of who is on the SEND register/numbers and needs across school.
- Liaison with SENDCo.
- Analysis of Maths data and discussions in Pupil Progress Meetings
- Discussions with class teachers, support staff and management team regarding IEPs and whether any further provisions are needed.
- Seating arrangements allow for clear visibility of the whiteboard and allows for peer or adult support.
- Furniture is suitable and modifications to seats or the inclusion of supports (such as raised boards) are thought of.
- Subject specific additional resources available: hand huggers, enlarged print
- Discussions with children
- Using tactile equipment/resources
- Children to be provided 'parallel activities' so that they can work towards the same lesson objective as their peers but in a slightly different way
- Resources are accessible and within reach of children- number lines, shapes etc
- Differentiated outcomes- e.g. pictures of work, scribed answers by an adult, verbal reasoning.
- Ensuring we are not holding back pupil knowledge due to difficulties with other skills.

Specific examples for the different areas of need

Cognition & Learning	
Barriers	Provision
<p>Information may not be understood or retained</p> <p>Accessing and understanding multi-step problems</p> <p>Memory- consolidation skills</p>	<ul style="list-style-type: none"> • Retrieval practice to support/refresh previous learning • Explicit link and reactivation of prior learning as 'way in' to new learning. • Pre-teach new concepts and key knowledge. • Pre-teach vocabulary books. • Show the focus of each lesson and how it fits in the sequence of lessons. How do lessons link together to develop knowledge? • Use symbols, images or objects to make it more accessible. • Referring to working/enquiry wall. • Use of concrete, pictorial and abstract learning. • Adapt pace of delivery to processing speeds. • Mixed-ability pairings to support discussion. • Use of stem sentences

	<ul style="list-style-type: none"> • Worked examples used to support and remind pupils • Encourage the use of mind maps/pictures/flow charts. • Opportunities to apply maths skills and knowledge in other areas of the curriculum.
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Communication & Interaction

Barriers	Provision
<p>Understanding mathematical language</p> <p>Understanding mathematical concepts</p> <p>Understanding abstract concepts</p> <p>Processing multistep problems</p>	<ul style="list-style-type: none"> • Recognise that the language of Maths may be challenging for many children - for example: The specific scientific use of everyday words such as 'square', or terms specific to maths, such as 'fraction'. • Pre-teach key vocabulary, then ensure multiple and regular exposure to these words including referring to knowledge organisers and make them clearly visual in the classroom environment. • Explicitly teach the meaning of key mathematical vocabulary in lessons. • Provide flashcards with key vocabulary - with visual cues. • Check children's understanding by inviting them to reformulate reasoning in their own words or in other ways. For example, after articulating $3 \times 5 = 15$, reference to repeated addition, use of number line etc • Use real objects as a starting point for developing the concepts and the language needed to describe, discuss and explain what pupils have observed or experienced. • Give children time to process and formulate their answers to questions before responding. • Use of manipulatives. • Use of worked examples and sharing these with pupils as a frame. • Provision of x-table squares to support pupils in conducting calculations. • Chunking up word problems and supporting pupils to identify steps in multi-step problems.

Social, Emotional & Mental Health (SEMH)

Barriers	Provision
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<p>Anxiety</p> <p>Participation/ safety/ practical work</p>	<ul style="list-style-type: none"> • Targeted question – consider in whole-class or group discussion supporting pupils to participate by asking low-threat questions you know they can answer to foster confidence to contribute. • Consistency of approach reduces children's anxiety - it allows children to predict what will happen. Provide an overview of the lesson elements so the children know what is coming, pre-teach the child some of the elements of the lesson etc. • Consider groupings – prepare the children by ensuring they are aware of the group they will be working in. Assign roles to each member of the group with a clear outline of job roles. • You may need to specifically teach the skills of cooperation and interaction for practical work. • Controlled choices. • Clear expectations. • Use of whiteboards for working – pupils may be anxious about committing errors to paper. • Opportunities to develop social skills including being taught these discretely to support engagement in group work and collaborative learning. • Use of PSHE to discuss healthy relationships, promote wellbeing and explore emotive topics within learning. • Teacher modelling of 'getting stuck' and positive attitudes towards perseverance.
<p>Physical and/or Sensory</p>	
<p>Barriers</p>	<p>Provision</p>
<p>Difficulties impacting eyesight, hearing, movement, touch etc.</p> <p>Sensory processing difficulties.</p>	<ul style="list-style-type: none"> • Label new equipment and processes to help develop vocabulary. • Use of concrete manipulatives to support e.g. Numicon. • Use of dual coding (symbols and words). • Take pupil voice on choice of implement including material used to record on. • Choice and size of font. • Consider ventilation and positioning of children for anything that may have an odour. • Pre-teach showing/experiencing anything that may have sensory implications. • Ask for specialist advice on equipment for children with particular SEND e.g. tactile ridges on measuring glassware for children with a visual impairment.

	<ul style="list-style-type: none"> • Consider children hard of hearing when reading aloud, sit them in front of you so they can see your face. • Use of sensory aids as part of usual provision e.g. gloves, audio/visual support. • Consider pupil sensory audits and adaptations. • Use of technology including iPads and laptops. • Use of concentration aids. • Finger-strengthening exercises. • Use of writing slopes.
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Are assessments based on knowledge rather than scores in tests and ability to record work?

How?

- Discussions with pupils, alongside their work.
- Adaptions in ways they are expected to record work.
- Use of questioning
- Immediate engagements in lessons give opportunities for verbal problem solving and reasoning skills.
- Children self-assess at the end of each lesson next to the lesson's learning objective.
- Feedback is given in an appropriate form - verbally, in writing.
- Goals and objectives kept small and not too overwhelming.
- Children are aware of any specific and/or individual targets they have in mathematics. These are then worked on with an adult during the year and amended/updated where applicable.
- Children are to be involved in setting their targets.

How are we challenging SEND pupils in this subject?

- Children access the curriculum alongside other children in their class. Along with tailored lesson objectives, all children are to be challenged.
- Intervention groups used to support and extend learning.
- 1-1 adult (if applicable) used to support children.
- Access to reasoning and problem solving questions at all levels
- Objectives are challenging yet achievable.
- Frequent opportunities to apply skills to different contexts

How do we help SEND pupils retain their knowledge?

- Working Walls
- Progression of Learning Sequences
- Repetition, use of Flashback 4s
- Daily fluency sessions
- Repetition of key vocabulary- checking meaning regularly (pre-teach vocabulary books).

- TA support
- Immediate engagement tasks
- Use of sentence stems
- Application of skills in different contexts