



Maths

How we adapt the curriculum and learning environment for children & young people with SEN

Children learn and develop in different ways and may need extra help and support at various points throughout their time at school. Some children, at some time in their school life might have additional or different needs and it may be that they will be on our SEN register for a short period or a long period of time. However, children's needs are frequently reassessed in order to ensure that the provision is suitable and supports every child's development.

Our SENCO, working alongside class teachers, oversees all SEN provision, different approaches to teaching and monitors progress of any child requiring additional support across the school. The class teacher will oversee, plan and work with each child with SEND in their class to ensure that progress in every area is made. This is Quality First Teaching and is where the work is highly differentiated and suits the needs of all children, it comes in the form of a lesson rather than an intervention programme. Alongside Quality First Teaching, there may be a Learning Support Assistant (LSA) working with children, either individually or as part of a group. This means that children may be taken out of the classroom for these sessions, but they will continue to work on the same areas as the rest of the children in their class which ensures that they can go back into the classroom with a smooth transition. The regularity of these sessions will be explained to parents and carers when the support starts and outlined on a SEND pupil passport.

To successfully match pupil ability to the curriculum and learning environment there are some actions and adaptations we may take to achieve this:

- Ensure that all children have access to the school curriculum and all school activities.
- Help all children achieve to the best of their abilities, despite any difficulty or disability they may have.
- Ensure that teaching staff are aware of and sensitive to the needs of all children, teaching in a way that is more appropriate to their needs.
- Children gain in confidence and improve their self-esteem.
- Work in partnership with parents, carers, children and relevant external agencies in order to provide for children's special educational needs and disabilities.

- To identify at the earliest opportunity, all children that need special consideration to support their needs (whether these are educational, social, physical or emotional)
- To make suitable provision for children with SEN to fully develop their abilities, interests and aptitudes and gain maximum access to the curriculum.
- Ensure that all children with SEN are fully included in all activities of the school in order to promote the highest levels of achievement.
- To promote self-worth and enthusiasm by encouraging independence at all age and ability levels.
- To give every child the entitlement to a sense of achievement.
- To regularly review the policy and practice in order to achieve best practice.

The provision for children with SEN across the four Broad Areas Of Need may include some of the following interventions (please note this is not an exhaustive list) ;

Communication and interaction – Access to regular speech and language intervention as directed by SALT, Lego Therapy,

Cognition and learning – Toe by Toe, Beat Dyslexia

Social, Emotional and Health Difficulties – Social skills sessions, Time to Talk, 5 Point Scale, colour monster.

Sensory and/or Physical Difficulties – Teodorescu, Sensory Circuits, sensory bags

Children that are receiving additional support and intervention programmes may have a Pupil Passport. Parents are invited into school to review and discuss support and progress with staff every term.

More details on how we adapt information, our environment and curriculum can be found in the **Accessibility Plan** which you can find in the School Policies section of our website.

How are the Governors involved and what is their responsibility?

Governors are kept up to date on the progress of SEN children. Individual children are not named in this instance and confidentiality is maintained at all times. One of the Governors is responsible for SEN and they liaise with the Head Teacher and SENCO, they also discuss the funding arrangements of staff and resources for SEND children. The Governors agree priorities for spending within the SEN budget with the overall aim that all children receive the support they need in order to make progress.

How we adapt the curriculum and learning environment for children & young people with SEN in English.

Need	How the need may present	Proposed Adaptations
<p>Communication and interaction</p>	<ul style="list-style-type: none"> • May have difficulty ignoring distractions. • Need reminders to keep attention. • May need regular prompts to stay on task. • May need individualised motivation in order to complete tasks. • Difficulty attending in whole class. • Interaction will not always be appropriate. • May have peer relationship difficulties. • May not be able to initiate or maintain a conversation. <p>Understanding Receptive Language:</p> <ul style="list-style-type: none"> • May need visual support to understand or process spoken language. • May need augmented communication systems. Frequent misunderstandings. Repetition of language and some basic 	<ul style="list-style-type: none"> • Staff model correct use of language by subtle repetition. • Children are given more opportunities to share their ideas with others – ‘show and tell’, initially small groups moving onto larger groups and then the whole class. • Pre-taught new vocabulary • Targeted use of drama <p>How we provide support and intervention for those with identified needs</p> <ul style="list-style-type: none"> • Attention/interaction skills: May have difficulty ignoring distractions. Need reminders to keep attention. May need regular prompts to stay on task. May need individualised motivation in order to complete tasks. Difficulty attending in whole class. Interaction will not always be appropriate. May have peer relationship difficulties. May not be able to initiate or maintain a conversation. • Understanding Receptive Language: May need visual support to understand or process spoken language. May need augmented communication systems. Frequent misunderstandings. Repetition of language and some basic language needs to be used to aid their understanding • Speech/Expressive Language: May use simplified language and limited vocabulary. Ideas/conversations

	<p>language needs to be used to aid their understanding</p> <p>Speech/Expressive Language:</p> <ul style="list-style-type: none"> • May use simplified language and limited vocabulary. • Ideas/conversations may be difficult to follow, with the need to request frequent clarification. • Some immaturities in the speech sound system. • Grammar/phonological awareness still fairly poor and therefore their literacy could be affected. 	<p>may be difficult to follow, with the need to request frequent clarification. Some immaturities in the speech sound system. Grammar/phonological awareness still fairly poor and therefore their literacy could be affected.</p> <ul style="list-style-type: none"> • Staff model correct use of language by subtle repetition • Children are given more opportunities to share their ideas with others – ‘show and tell’, initially small groups moving onto larger groups and then the whole class. • Pre-taught new vocabulary • Targeted use of drama • Follow specific recommendations from specialist agencies. • Use of buddy system • Refer children to the speech and language service for support and advice. • Provide trained teaching assistants to run speech and language programmes in school. This may be on a one to one basis or in small groups. • Regular feedback to parents/carers giving suggestions of how they can help their children at home. • Visual timetables • Scaffolding within lessons • Talk partners
<p>Cognition and Learning</p>	<ul style="list-style-type: none"> • Language memory and reading skills • Sequencing and organisational skills • An understanding of number 	<ul style="list-style-type: none"> • Clear expectations • Provide pre-teaching opportunities • Specific interventions to aid children to develop the skills that they require to be able to access the curriculum. • Provide adaptations to the curriculum or style of teaching to cater for individual needs eg giving clear, precise and direct instruction

- Problem solving and concept development skills
- Fine and gross motor skills
- Independent learning skills
- Exercising choice
- Decision making
- Information processing

Children may have a specific learning disability such as dyslexia, dyscalculia, dyspraxia or dysgraphia

- Prompt sheets/cards
- Extra time to complete tasks and tests
- Simple verbal/written instructions
- Tasks given in small steps/amount of work at a time
- Use of mind maps to organise thoughts and ideas
- Providing support from the teacher or the LSAs in small groups or on an individual basis, within the classroom

How we provide support and intervention for those with identified needs

- Access and liaison with OT/Physiotherapist
- Follow advice from outside agencies
- Purchase of resources to support children when appropriate.
- A place for time out-Calming Corner
- Daily Readers
- Overlays/ coloured paper
- Touch typing activities such as BBC Dance Mat
- Regular feedback to parents/carers giving them suggestions of how they can help their child at home.
- Scaffolding within lessons
- Pre teaching interventions
- Word banks and word mats
- Focus on vocabulary
- Use of spelling interventions
- Use of subject specific equipment
- Oracy focus
- Visual timetable

Social, Emotional and Mental Health

- Social isolation
- Behaviour difficulties
- Attention difficulties (ADHD)
- Anxiety and depression
- Attachment disorders
- Low self esteem
- Issues with self-image

- Providing support – having a designated adult to work with the pupil
- Having a calm area where the child can have ‘time out’.
- Children are encouraged to work with others within a small group with the support of an adult
- Children are encouraged to share their ideas with others and adults model how to take turns, share and negotiate with their peers.
- Consistent routines/boundaries and expectations of behaviour
- Being sensitive to the needs of individual children, taking into account their personal circumstances.
- Being sensitive to any resources being used.

How we provide support and intervention for those with identified needs

- A place for time out- Calming Corner
- Small group ‘Circle Time’
- Home School Behaviour Books
- Refer to outside agencies as appropriate eg bereavement counselling, CAMHs
- Advice followed from other agencies
- Extra visits to Secondary Schools
- Supporting families with multiagency involvement
- During unstructured times support staff and supervisors made aware of the needs of specific children.
- Carefully planned seating arrangements both in and out of school

		<ul style="list-style-type: none"> • Calm learning environment • Sensory items when required • Brain and active breaks • Whole school awareness days • Daily mindfulness sessions • Parent information- inclusion
<p>Sensory, medical, physical</p>	<ul style="list-style-type: none"> • Specific medical conditions • Gross/fine motor skills • Visual/hearing impairment • Accessing the curriculum without adaptation • Physically accessing the building or equipment • Over sensitivity to noise/smells/light/touch/taste. • Toileting/self-care 	<ul style="list-style-type: none"> • Children are provided with suitable equipment on advice from outside agencies eg pencil grips, writing slopes, stress balls etc • Ensure tables and chairs are the correct size for the children • PE sessions with LSA support if appropriate • Ensure the environment is free from clutter and is tidy and organised <p>How we provide support and intervention for those with identified needs</p> <ul style="list-style-type: none"> • A place for time out- Calming Corner • Access and liaison with OT/ Physiotherapist • Referral to outside agency • Pre-writing skills eg tweezers, peg boards • Use of specialised equipment in the classroom as suggested by outside agencies • School is all one level with ramps to get inside • Carefully planned seating arrangements • Use of IT on recommendation from outside agencies

		<ul style="list-style-type: none"> • Think about adaptations such as accessibility to vision and sound
<p>Subject specific</p>	<p>Interactive whiteboards are non-reflective to reduce glare.</p> <p>Use systems such as racks so that maths equipment can be checked out and checked back in. Some pupils may need modified maths equipment.</p> <p>Some may need access to tactile and other specialist equipment for work relating to shape, space and measures, to overcome difficulties in managing visual information</p> <p>Find out how pupils prefer to learn mathematics. There is no reason why the term 'learning style' should be restricted to the well-known visual, auditory and kinaesthetic styles. Many pupils, for instance, particularly value learning through ICT of one kind or another.</p> <p>Build on pupils' preferred learning styles when explaining mathematical concepts, by exploiting different media – eg stories, acting out processes, models, computer simulations, animations, concept mapping etc.</p> <p>There should be “something to see, something to listen to and something to do at each stage of mathematical development” (El-Naggar, 1996). Explore concepts in different forms – eg as a word-sentence, sequence of body language, picture, graph or equation.</p> <p>Puppets, mascots and objects add fun and elements of surprise to lessons, and action songs, games and rhymes encourage a physical response. Use concrete or visual support for mathematical discussions whenever possible.</p> <p>Exploit the many forms of mathematical representation – eg pie charts, number lines, abacus, bar charts, tiles – and the connections between them.</p> <p>ICT can enable pupils to switch quickly between different representations. Simple audio recording devices can replace the need for written notes during activities or visits.</p>	

Plan, where appropriate, for:

- pupils to be pre-tutored in important mathematical vocabulary, concepts and/or processes.
- 'scaffolding' when pupils use equipment, especially for tasks requiring accuracy or skill (eg drawing or measurement),
- help for pupils – eg pupils with a hearing impairment – to interpret or respond to oral aspects of mathematics lessons such as mental mathematics.

Prepare resources – eg preprepared grids for recording information can be helpful for some pupils.

Tightly targeted mathematics interventions for individual pupils can be highly effective, even if they only take a short time each week (see section 7 of Dowker, 2004)

Recognise that the language of mathematics may be challenging for many pupils.

For example:

- the specific mathematical use of everyday words such as 'tables', 'translate', 'right angle'
- terms specific to mathematics – eg 'digit', 'subtract'
- terms such as 'height', 'distance' or 'mass' can create barriers for some pupils, because of their abstract nature.

Plan to teach new vocabulary explicitly. Make sure that pre-tutoring on mathematical vocabulary is available for pupils who need it.

Give pupils with communication impairments time to answer open-ended questions

Use discussion of mathematical investigations to inform pupils' development of mathematical language and help them to analyse and understand what they have seen.

In a plenary after the class has completed a task, allow pupils time to discuss the answers to questions in pairs, before asking for verbal responses

Build up a chart (using a wallchart or other space) to show the focus of each lesson and how successive lessons or topics link together to develop an area of mathematics work. This could include symbols, images or objects to make it more accessible

Pupils know what level they are working at – through displays, use of assessment systems, display of objectives and levels.

Discussing mathematical errors/ misconceptions prevents pupils becoming inhibited by fear of making mistakes.

Avoid a culture of 'right answers' and emphasise the importance of processes and problem solving. Ask pupils what could have been done differently to make things go more efficiently – eg using ICT to plot a graph instead of drawing it by hand.

Revisiting a mind map of the same area of learning, say after three weeks of studying a mathematics topic, can be a good way of assessing – through the added 'branches' of the map – how pupils' understanding of concepts is developing.

This approach can be particularly valuable for pupils for whom oral and written communication present a barrier, as pictures and symbols can be included.

Use targeted questions to check pupils' understanding. Invite pupils to reformulate concepts in their own words to check their understanding – eg asking pupils how they would explain it to another person, using cartoons.

Prepare questions using contexts relevant to pupils' strengths and interests – eg involving knowledge of the school or local area.

Pupils with an autistic spectrum disorder are often stereotyped as being good at mathematics.

However, if they have skills, these are often isolated and cannot be used in any practical or real-life situation.

Relate mathematical concepts to everyday applications and other areas of the curriculum so pupils see how mathematics is relevant and how it can be applied – eg prepare questions where pupils can use their knowledge of the school or local area.

Invite pupils to reformulate concepts in their own words to check their understanding – eg asking pupils how they would explain it to another person, using cartoons.

Specific help with number recall or interpreting data in graphs, tables or bar charts, will help to compensate for difficulties with long- or short-term memory.

