



## Inclusive Strategies to support pupils with SEND IN Maths

### Cognition and learning

#### Memory




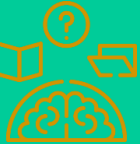

- ★ Offer additional thinking time to formulate responses and act upon instructions. To support this, warning of the question/ response is useful
- ★ Offer short, personalised instructions in the correct task sequence
- ★ Provide visuals to support vocabulary
- ★ Offer pre-teaching sessions to make the unfamiliar feel familiar
- ★ Encourage the pupil to make a checklist/steps to success
- ★ Provide equipment checklists
- ★ Teach mathematical vocabulary in context
- ★ Use representations learners are familiar with to transfer and connect similar ideas

#### Task Organisation



- ★ Offer a visual task timeline
- ★ Offer a Workstation approach
- ★ Ensure equipment is well organised and easily accessible
- ★ Use of visual time prompt such as timers
- ★ Provide equipment checklists and task management boards
- ★ Easily accessible equipment and resources
- ★ Ensure equipment is well organised and clearly labelled; (object of reference, pictures, words);



<p><b>Concentration</b></p> 	<ul style="list-style-type: none"> <li>★ Offer a visual task timeline</li> <li>★ Sensory breaks built into timetable</li> <li>★ Use of a table top timer to show how long the child has to work for</li> <li>★ Ask the child to explain in their own words what they are learning/their task</li> <li>★ Break larger tasks into small steps and offer a motivator for successful completion of each one</li> <li>★ Keep focused activities short and intersperse with child-led activity</li> <li>★ Daily repetition of activities and routines so that they become familiar and predictable</li> </ul>
<p><b>Information Processing</b></p> 	<ul style="list-style-type: none"> <li>• Allow additional thinking time to process and react to instructions/information</li> <li>• Explore the learning style of the pupil and ensure you reflect their processing style in your teaching style and resources. Ensure you offer a range of teaching styles within your QFT.</li> <li>• Resources to support structure of tasks e.g task management boards, recording instructions, visual instructions</li> <li>• Individual workstations to lower visual and sensory stimuli</li> <li>• Broken down learning tasks</li> </ul>
<p><b>Recognition and Recording</b></p> 	<ul style="list-style-type: none"> <li>★ Assess whether the pupil has a gap in their learning experiences and understanding. If this is the case, ensure strategies that are implemented are interactive, multisensory and reflect early learning experiences e.g.</li> <li>★ Number strips, number lines and 100-squares which include pictorial representations of numbers</li> <li>★ Alternative methods of recording such as mind maps, the use of ICT, filming, photographs</li> <li>★ Children can dictate work using immersive reader</li> <li>★ Flashcards</li> <li>★ Maths vocabulary mats</li> <li>★ Modelled examples for pupils to refer to</li> </ul>



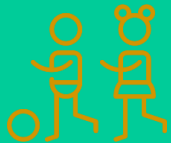
## Application



- Ensure the environment is language rich
- Ensure new concept teaching is linked to previous learning.
- Offer concrete, pictorial and then abstract representations of the same concept
- Multisensory numeral writing.
- Use Numicon to link learning of numeral to the quantity it represents.
- Colourful maths vocabulary where the mathematical word is linked to the symbol.
- Number songs and rhymes supported by objects/ props and actions.
- Ask children to check their abstract calculations by using pictorial or concrete strategies

## Communication and Interaction

### Social interaction Communication



- ★ Introduce specific my turn/your turn activities so that the pupil can work collaboratively with another to complete a task
- ★ Teach inference skills explicitly in context. 'It is hot in here.' What might that mean I need you to do to help?'
- ★ Always give a clear role/purpose in group work. Provide a brief check-list of what that role looks like/involves
- ★ Model 'wondering aloud': 'I can see that Daniel has tears in his eyes. I wonder if this is because he is sad. I will go and see if I can help him.'
- ★ Give the pupil a clear role such as listener/speaker and signpost the information that they need to collect
- ★ Surround with positive peer role models and explicitly narrate their behaviours

### Verbal/non-verbal Communication



- ★ Use partner talk strategies if the child has a peer or adult that they can talk to.
- ★ Visual instructions to support understanding
- ★ Use of Makaton signing if appropriate
- ★ Objects of reference to aid understanding and following routines where appropriate
- ★ Core word boards to allow non-verbal learners join in with discussions and sharing ideas



## Receptive and Expressive language



- ★ Introduce pre- teaching of targeted subject specific
- ★ Provide opportunities for overlearning vocabulary
- ★ Make vocabulary mats available as a table top resource with supporting visuals
- ★ Support the pupil to create a personalised vocabulary bank/dictionary containing visual supports.
- ★ Adult modelling of vocabulary
- ★ My turn/ your turn approach to learning vocabulary and definitions
- ★ Create actions for new vocabulary

## Attention



- ★ Sit the child near the front and make frequent eye contact. Consider who they are sitting next to (positive peer role model)
- ★ Reduce language. Keep instructions as short as possible. Break them into small steps and give one at a time.
- ★ Reduce visual and noise distractions
- ★ Gain attention through saying child's name before giving instructions

## Listening



- ★ Give the child a question to ask prior to the lesson or give them an answer to a question that will be asked during the lesson. This can promote active listening. When first introduced make sure you ask the question early in the lesson, slowly, this time can be extended
- ★ Allow child extra time to process the language they are being told.
- ★ Say child's name before giving instructions
- ★ Think about seating plan to minimise distractions



## Social, Emotional and Mental Health

### Regulation



- ★ Feelings charts
- ★ Staff trained in emotions coaching
- ★ Safe spaces for withdrawal
- ★ 5-point scale charts used
- ★ Emotions cards
- ★ Sensory diet and use of sensory manipulatives

### Self Esteem



- ★ Encourage other pupils to compliment the target pupil. This can be introduced whole class via peer marking approach.
- ★ Openly acknowledge and model that it is okay to make mistakes. During adult led activities role play making a mistake and talk through how to recover
- ★ Scaffolded learning where pupils can succeed
- ★ Having clear success criteria so pupils can recognise success
- ★ Task management boards
- ★ Visual timetables
- ★ To begin with offer small, private praise
- ★ When approaching a new learning activity/approach support the pupil to identify the skills and strengths that they already have that they can bring to the task. Work on developing metacognition skills would support this.
- ★ Pose open ended questions

### Anxiety



- ★ 1:1 or small group reading/talk partners to help build confidence
- ★ Task management boards
- ★ Visual timetables
- ★ Use of timers
- ★ Worry monsters/jars/wellbeing-emotions plaques
- ★ 5-point scale charts used
- ★ Mindfulness activities



## Resilience



- ★ Growth mindset approach
- ★ Structured and repetitive sequences of lessons
- ★ Visual timers
- ★ Visual timetables
- ★ Task management boards
- ★ Modelling making mistakes

## Self-confidence



- ★ 1:1 or small group reading to help build confidence
- ★ Growth mindset approach - modelling making mistakes
- ★ Structured and repetitive sequences of lessons
- ★ Visual timers
- ★ Visual timetables
- ★ Task management boards




## Physical and/or Sensory needs

### Fine Motor Skills



- ★ Use of alternative methods of recording including mind maps, use of ICT and maths programs
- ★ Pencil grips
- ★ Writing slopes
- ★ Books with enlarged squares to record
- ★ Adapted tools such as training scissors, giant maths manipulatives, tactile numbers



<p><b>Gross Motor Skills</b></p> 	<ul style="list-style-type: none"> <li>★ Include large gross motor gestures/actions as a support for remembering key content information or subject specific vocabulary.</li> <li>Adaptive seating e.g. wobble cushion, physio chair, fidget chair bands</li> </ul>
<p><b>Hearing impairment</b></p> 	<ul style="list-style-type: none"> <li>★ Provide a note taker (adult or peer) to record key information</li> <li>★ Include opportunities for repetition in lesson time.</li> <li>★ Appropriately placed seating within the classroom</li> <li>★ Use of hearing loops etc – if appropriate</li> <li>★ Reduced background noises within the class e.g. fans, radiators etc</li> <li>★ Pre teach of vocabulary</li> <li>★ High level of visual support or Makaton for the spoken word</li> <li>★ Use of subtitles if watching video stimulus</li> <li>★ Repetition of key content</li> </ul>
<p><b>Visual Impairment</b></p> 	<ul style="list-style-type: none"> <li>★ Consider producing materials for all pupils in an accessible font size (at least 14 point) and typeface (eg Arial) to reduce the amount of modification needed</li> <li>★ Provide electronic copies of resources for older pupils so they can put them into their preferred format themselves on their own computers</li> <li>★ Allow work to be completed on electronic device and written feedback to be given in the same way</li> <li>★ Offer coloured overlays and printed materials on pastel coloured paper</li> <li>★ Increase line spacing (at least 1.5)</li> <li>★ Ensure handouts and power point slides are uncluttered</li> <li>★ Enlarged scales on measuring equipment</li> </ul>



## Sensory processing



- ★ Multi-sensory approaches to Maths e.g. using maths manipulatives, forming numbers in different textures (sand, shaving foam etc)
- ★ Explore the use of different coloured overlays and paper
- ★ Recognise support needed for different sensory aspects e.g. a child with a visual sensory need would benefit from reduced visuals within their text/on the flipchart etc. A child with an auditory sensory need may benefit from sitting near the door so that they can withdraw from the room if the noise level gets too high
- ★ Individualised sensory timetables with regular sensory breaks to reduce sensory arousal
- ★ Have sensory resources available that will support focus and meet sensory needs – ear defenders, wobble cushions, fiddle toys, jewellery, sensory boxes