

**Strategies for supporting pupils with
Special Educational Needs in COMPUTING**

SOCIAL EMOTIONAL MENTAL HEALTH

Strategies for supporting learners who struggle with attention and/or lack confidence/struggle with change and transition:

- ✓ **Adult Support:** All adults who work with these children will nurture a positive, supportive, trusting relationship with them and will be available for support during the lesson. Learners can be given a particular role in the lesson to keep them engaged and promote active participation.
- ✓ **Strategies for scaffolding learning:** Learning will be adapted so that it is accessible to the child
Consideration is given to potential unhelpful sources of distraction, such as over-frequent changes of task or unstructured group work.
Time: extra time will be given for the child to process new information and instructions with the support of visual cues – start small and remember to praise, praise, praise, PRAISE!
Learning Environment: consider the seating arrangements to engage all learners and maximise access to resources – location of child to accommodate needs as comfortably as possible for the individual child. Consider that circles and grouped tables can be a barrier to attention on learning.
Pre-warning of change: Individuals will be alerted to any changes that will be made to the seating plan or organisation of the lesson beforehand by using visuals and/or having a conversation with them at the start of the day.
- ✓ **Attention Deficit Hyperactivity Disorder:** Reinforce instructions on how to use the computing equipment
Be explicit about the rules of when to use the equipment and when to be listening and focusing on verbal instructions – **Tilt screens when you are teaching.**
- ✓ **Anxiety:** Arrange for another child to be a 'buddy' for computing lessons so that they know that they can have a consistent friend to help if needed
Where possible, the child will work in a group rather than independently so that they feel supported if they experience any issues with the computer / other equipment
- ✓ **Experienced Trauma:** The PACE approach should be used, using playfulness, acceptance, curiosity and empathy to understand my emotions and behaviour
Use the sliding scales if difficulties occur during the lesson, and ways these can be overcome, reminding children that learning is about trial and error
Use simple, specific instructions that are clear to understand, and deliver these slowly

General Good Practice

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- ✓ Give opportunities for child to demonstrate their skills to maintain self-confidence
- ✓ Emphasise positives in front of other pupils and staff
- ✓ Give breaks between tasks
- ✓ Practical activities
- ✓ Make expectations for behaviour explicit by giving clear targets, explanations and modelling (scripted conversation)
- ✓ Quiet area for child to complete work
- ✓ Legitimise movement by asking pupil to take a message, collect an item, do a job and then return to task
- ✓ Ensure equipment is easily accessible and available to use
- ✓ Use pupil's name and ensure you have their attention before giving instructions – model good listening and make your expectations clear – eye contact.
- ✓ Keep instructions calm, clear, short and precise.
- ✓ Visual timetable and task list
- ✓ Calming activities accessible and ensure they know how to use them
- ✓ Communicate positive achievements – no matter how small – with home
- ✓ Use RWI hand signals within teaching practice to reduce cognitive overload

Supporting resources available include:

- Now & Next boards
- Reward charts
- Home/school communication
- TIS support group/individual
- Spot cards
- Visual timetable
- Visual timers
- Time to talk
- Social group support

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COMMUNICATION AND INTERACTION

Strategies for supporting learners who struggle to retain vocabulary and/or comprehension:

- ✓ **Adult Support:** Drip-feed key vocabulary throughout the school day. Discuss the meaning of key terms in your subject to clarify the meaning of new language and make the subject accessible.
- ✓ Vocabulary is to be taught at the start of the lesson.

- ✓ **Strategies for scaffolding learning:**
Provide:
Pictorial word banks – Widgeit to support with the meaning of new language
Cues: Children could use a 'help card' if they feel that they need support within the classroom

- ✓ **Autism Spectrum Disorder:** Teacher / TA to discuss what the computing session will involve and what programme/software/computing equipment will be used
Where possible, the child will work in the same group / team for each session
Where possible/necessary, discuss any unfamiliar technical vocabulary that might be used prior to the lesson.

- ✓ **Speech, Language and Communication Needs:** Be prepared to adapt instructions, particularly those that contain unfamiliar technical vocabulary, so that the child can understand them
Provide lots of 'talk' opportunities so that new concepts can be discussed, prior to beginning independent learning
Provide printouts which include the images of symbols/icons/buttons that will be used in the lesson

- General Good Practice**
- ✓ Good listening taught, modelled and regularly reinforced
- ✓ Pupils aware of pre-arranged cues for active learning (especially important if children are wearing headphones)
- ✓ Pupil's name or agreed cue used to gain individual's attention – and before giving instructions
- ✓ Key words EMPHASISED when speaking and displayed visually with picture cues
- ✓ Range of multi-sensory approaches used to support spoken language e.g. symbols, pictures, concrete apparatus, role-play
- ✓ Instructions broken down and given in order they are to be done
- ✓ Check lists and task lists – simple
- ✓ Delivery of information slowed down and time given to allow processing
- ✓ Good modelling
- ✓ System of visual feedback to show if something has been understood
- ✓ Think, pair, share

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- ✓ Key vocab on display
- ✓ Strategies shared with all adults working with child

Supporting resources available include:

- Talking tins
- Visual support materials
- Now & Next boards
- Visual timetables
- Visual support materials
- SALT support

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SENSORY AND PHYSICAL

Strategies for supporting learners who have sensory and/or physical issues:

✓ **Strategies for scaffolding learning:**

✓ Ear defenders can enable learners to partake in lessons with more confidence. If learners cannot hear, opportunity can be provided for physical

✓ Learning Environment: consideration is given to the size of the group and the fact that learners may benefit from smaller groups or individual groups. Consideration is given to the lighting in the room if learners would benefit from reduced glare on interactive whiteboards and computer screens.

Sensory breaks: Planned and unplanned sensory breaks will be used and there will be a breakout space available throughout the lesson to be accessed when necessary

✓ **Adult Support:** All adults who work with these children will nurture a positive, supportive, trusting relationship with them and they will be available for support during the lesson. Learners can be given a particular role in the lesson to keep them engaged and promote active participation.

✓ **Hearing Impairment:** Ensure that the child is able to sit near to the interactive whiteboard and/or the teacher

Repeat instructions for independent learning to ensure the child knows what to do

Ensure that any videos that are shown in computing lessons are subtitled

Provide print outs or screenshots from the main input in lessons which the child can refer to

New and unfamiliar technical vocabulary is discussed at the start of a new computing unit

Ensure that background noise is kept to a minimum, particularly when sound is being used with computers.

Provide headphones for all children if the background noise is going to hinder the hearing-impaired child

✓ **Visual Impairment:** Ensure that the child is taught how to adjust the screen resolutions on computers (brightness, contrast) and how to zoom in and out

Consider the colour of backgrounds and text on interactive whiteboard when teaching and that of the computers when accessing shared documents

Ensure that when a computer is being used, it is in a space where there is as little glare as possible. Consider dimming or switching off the classroom lights during computing lessons

Allow breaks from using the computer during extended periods of work where there could be the risk of fatigue through continually looking at a screen

General Good Practice

✓ Give as many first hand "real" multi-sensory experiences as possible

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- ✓ Always use verbal explanations when modelling to the class – read out aloud as you write on the board
- ✓ Address pupil by name to get their attention
- ✓ Avoid standing in front of windows or a light source – your face becomes difficult to see
- ✓ Good listening taught, modelled and regularly reinforced
- ✓ Slow down speech rate but keep natural fluency
- ✓ **Do not** limit use of rich and varied language
- ✓ Allow more thinking time
- ✓ Repeat contributions from other children – they may have softer/quieter voices
- ✓ Check that oral information/instructions have been understood
- ✓ Face the pupil when speaking
- ✓ Keep hands away from mouth
- ✓ Divide listening time into short chunks

Supporting resources available include:

- Laptops/ICT support
- Bands for chairs
- Visual support materials
- Sensory diet (including regular movement breaks)
- Move and sit cushions
- Fidgets
- Pencil grips
- Springy scissors
- Chew bangle
- Ear defenders
- Funfit type exercises

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COGNITION AND LEARNING

Strategies for supporting learners who struggle to access lessons because of literacy and/or numeracy based difficulties and/or those who require additional time to develop conceptual understanding:

- ✓ **Adult Support:** Use of strategies like modelling, demonstrating and initiating to help learners understand concepts. Small group provision. Encourage active participation through a scaffolded experience.
- ✓ **Strategies for scaffolding learning:**
Provide visual aids to enable learners to identify when it is time to listen, work as a group or individually
Provide pictorial representations of a composition to provide a form of non-verbal communication. Break down content into small steps.
Pre-teach: individual pupils will be given the necessary preparation prior to the lesson so that they know what to expect within the lesson and can access the learning
- ✓ **Dyscalculia:** Provide printouts of the instructions that will be used in the lesson
Where necessary, provide screenshots of the computer programme that will be used in the lesson
- ✓ **Dyslexia:** When using the interactive whiteboard, avoid black text on a white background and ensure this is avoided when sharing documents
Show the child how to enlarge or zoom in on a page when using a computer so that text and images can be clearly read and understood
- ✓ **Dyspraxia:** Provide opportunities for the child to sit in a spot in the classroom where there is plenty of room, particularly when a computer is needed
Make sure that instructions are clearly explained and repeated if necessary
Allow extra time to complete tasks, especially when new concepts/programmes/software is being used
- ✓ **Cognition and Learning Challenges:** Provide small steps to complete in independent learning activities as the computing tasks could be unfamiliar
Provide a word bank to explain unfamiliar technical vocabulary
Provide screenshots of the computer programmes that will be used in computing lessons
Use plenty of modelling on screen to ensure that the child understands how to access programmes and the information within them

General Good Practice

- ✓ "Next steps" for learning derived from previous learning
- ✓ Make sure any reading is accessible to the learner
- ✓ Key words/vocabulary emphasised when speaking and displayed clearly
- ✓ Pre-teach of subject vocabulary
- ✓ Instructions broken down into manageable chunks and given in order
- ✓ Teach sequencing as a skill e.g. sequencing coding
- ✓ Pupils encouraged to explain what to do to check understanding
- ✓ Consistent use of symbols and pictures
- ✓ Links to prior learning explicitly made
- ✓ Alternative ways to demonstrate learning e.g. diagrams, mind maps, videos.

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- ✓ Key words on desk
- ✓ To support short term memory: whiteboards to take notes, record ideas
- ✓ Coloured background
- ✓ Text presented clearly – reduce cognitive overload
- ✓ Additional time to complete tasks
- ✓ Teach and model memory techniques
- ✓ Teach keyboard skills

Supporting resources available include:

- Dyslexia support resources including: coloured overlays, talking tins
- Task boards
- Writing frames
- Chunking
- Pre-teach
- Post-teach
- Word mats
- Talking tins
- Access to learning support materials – word lists/mats, number lines, 100 squares, maths mats
- Now & Next boards
- Visual timers
- Visual timetable
- Visual prompts