



Subject Specific and Generic QFT Approaches – Science

Although identified within the four broad areas of need, we acknowledge that a child may demonstrate difficulty across more than one area and that a variety of strategies may be used to create personalised programmes for children with SEND. We also acknowledge that QFT is beneficial to all children, not just those with SEND.

Our SEND vision: For all children and young people with special educational needs and disabilities to dream, believe and achieve.

Communication & Interaction

Potential Barriers to Learning

- Communication, speaking and listening difficulties
- Sensory overwhelm
- Anxiety
- Focus/concentration difficulties
- Difficulty in explaining ideas

QFT Strategies/Reasonable Adjustments

- A variety of strategies for talk based activities such as paired talk, thinking time, forums, jigsaw groups
- Pupils may be assigned specific roles (eg chair, writer, reporter, observer) which gives all pupils something to do and keeps them focused.
- 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.
- Use of reasonable adjustments such as TheraBands and fidget toys
- Tactile support i.e. removing shoes if uncomfortable
- Provide learning breaks, sensory circuits, sensory breaks, movement breaks
- Use of now/next boards, timers, workstation approach, visual timetables
- Use of scaffolded writing frames
- Small step learning, one step instructions and repetition of instructions
- Use of social stories
- Slow introduction then repetition of abstract concepts and scientific language
- Use of artefacts, trips, visitors to bring learning to life and aid imagination/practical experiences
- Multi-sensory approach to enable 'sticky' learning
- Plan for any demonstration areas to be clearly laid out, uncluttered and give all pupils a clear view
- Resources are accessible and labelled clearly to encourage independent use, eg using images, colour coding, large print, symbols etc.
- Be mindful of noise/ smell sensitivities during practical sessions



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

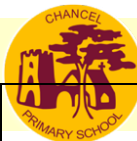
Cognition & Learning

Potential Barriers to Learning

- Retaining knowledge
- Too reliant on TA/Teacher support
- Dyslexic tendencies
- Difficulties with task completion
- Need for processing time
- Need for repetition and consolidation of key facts
- Poor organisational skills
- Difficulty in explaining ideas

QFT Strategies/Reasonable Adjustments

- A variety of ways in which to record and demonstrate knowledge e.g. through art, drama, music, dance interpretation, digital voice recording, word processing
- Knowledge organisers to support learning.
- Scientific enquiry used to encourage children to 'Think like a scientist'
- Use of mind maps to create links and 'sticky' knowledge
- Big picture understanding of chronological events
- Use of scaffolded writing frames
- A variety of assessment strategies such as quizzes, investigations, questioning, recap of previous learning and final summative assessment.
- Resources available in the classroom to encourage independence and organisational skills
- Use of pale yellow paper/screens, coloured overlays,
- Small steps learning
- Use of thinking time, paired talk, no hands-up approach
- Use of vocabulary lists, word banks, mnemonics, displays with prompts and cues
- Providing opportunities for over-learning and multi-sensory approaches
- Links to prior learning/chronological placement made explicit
- Scaffolded/differentiated questioning and lesson content
- Shared success criteria, expectations of the lesson and demonstrations
- Pre-teach, small group support
- Use of practical resources
- Avoid the need for copying lots of information. For example, notes on interactive whiteboards can be printed off for all pupils.
- When teaching, a variety of visual, tactile, auditory and kinaesthetic approaches are used,



- Alternatives to written recording are offered, e.g. drawing, scribing, word processing, mind maps, digital images, video and voice recording – supported by floor books
- Manageable mixed-ability grouping or pairing is the norm, except when carefully planned for a particular purpose.
- Build on investigations, using careful discussions that help pupils understand and use scientific vocabulary and help them to analyse and understand what they have observed
- Revisiting a mind map of the same area of learning, say after three weeks of studying a science topic, can be a good way of demonstrating and assessing – through the added ‘branches’ of the map – how pupils’ understanding of concepts is developing.
- Check pupils’ understanding by inviting them to reformulate explanations in their own words or in other ways. For example, after an investigation of floating and sinking, ask pupils to explain what happened using diagrams, as well as explaining it orally or in writing
- 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.
- Use a digital camera to capture each stage of an investigation, or important findings on a field trip, for future reference. Images can also be used to build a visual record. Evidence can be seen on SeeSaw.
- Use mnemonics to help pupils remember things like the order of the colours in a rainbow or the relative distance of the planets from Earth.



Social, Emotional and Mental Health

<u>Potential Barriers to Learning</u>	<u>QFT Strategies/Reasonable Adjustments</u>
• Sensitive content • Withdrawn, depressed behaviours • Difficulty with social interaction • Challenging or disruptive behaviour • Low confidence/self-esteem • Overwhelm • Some pupils e.g. with an autistic spectrum disorder (ASD) may have low awareness of danger. • Anxiety in unfamiliar situations	• Awareness of lived experiences and those in class with specific triggers • Nurture provision where required • Opportunities for success and achievement built into the lesson • Encourage emotional literacy • Safe spaces provided in class • Reasonable adjustments offered – worry worms, fidget toys, stress balls • Verbal reminders of potential hazards and how to stay safe • Make sure pupils are well prepared for visitors/ visits, particularly to museums. • Include photographs, videos etc so that pupils are not worried about unfamiliar situations. • Ensure constructive feedback is considered to support wellbeing and learning. • Adults respond and encourage learners ideas to support understanding.

Physical and/or Sensory

<u>Potential Barriers to Learning</u>	<u>QFT Strategies/Reasonable Adjustments</u>
• Visual difficulties • Hearing difficulties • Specific physical disabilities	• Enlarged text, larger lines in book • Position in class - close to the board/teacher, back to the light, away from background noise, facing those talking • Accessibility ensured in classroom for learners to move around the space. • Specific learning aids provided, such as desk mounts, specialised stationery (pencil grips) • Access to IT equipment • Ensure correct seating and positioning • Allow extra time to complete specific tasks.