Hydrocephalus – SEN Support Planning

Teaching and Learning Strategies in Schools

Sometimes hydrocephalus has virtually no impact on one child's development, whereas another child with hydrocephalus can be affected in a range of ways, which may take some time to be revealed.

Not all children have the same skills or areas of difficulty so it is essential that teachers observe and assess children with hydrocephalus closely to discover **skill gaps** and then plan their teaching strategies.

Good communication between the family of the child and the educational setting is essential for **outcomes** to be achieved successfully, as stated in the **SEND Code of Practice**. See SENDCoP:

http://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/398815/SEND_Code_of_Practice_January_2015.pdf

- **Listening** to the child and **learning** about their strengths and areas of need is vital.
- Setting **realistic individual goals** for each child is a priority in an educational setting.

SEN Support, introduced in 2014 with the **Children and Families Act** in England, can offer a good starting point for teachers.

The SEN support structure of **Assess, Plan, Do** and **Review** is an effective tool to provide individualised strategies for children with hydrocephalus.

See **SEN Support and the Graduated Approach** by Nasen (download)

https://www.google.co.uk/search?q=NASEN+Graduated+approach+guide&oq=NASEN+Graduated+approach+guide&aqs=chrome..69i57.12224j1j1&sourceid=chrome&ie=UTF-8

Areas of Special Educational Need for children with hydrocephalus

Knowledge of how the brain develops and how children learn is vital in order to understand the effects of hydrocephalus, seen in these broad areas of Special Educational Needs, outlined in the SEND Code of Practice.

- Communication and language needs
- Cognition and learning needs
- Social, emotional and mental health needs
- Sensory and physical needs

These **four broad areas of SEN** can be broken down into the following specific needs and features of hydrocephalus, which teachers may be able to observe and **assess, plan for, deliver and review.**

The implementation of teaching strategies, which are sensitive to the additional learning needs of children with hydrocephalus, will enhance their learning capabilities.

1. Communication and language needs

Children with hydrocephalus can be talkative and articulate, which can lead educators to assume that they have understood the task set and can get on with it unaided.

Language can be taken literally leading to some children giving inappropriate answers.

When asked, “Would you like to do this work again?” then “No thanks,” may be the unwelcome response.

Some children are so focused upon themselves and their own perspective that they do not see other viewpoints. They may wish to keep command of a conversation, finding turn-taking very difficult. Role play and script writing can help a child to learn how conversational discourse should be and the rules it usually follows.

Possible effects of hydrocephalus on communication and language

- Hyper-verbal communication
- Repetitive speech
- Literal understanding
- Verbal abilities and comprehension differences
- Responding to questions and commands differently
- Reading texts in various forms differently
- Understanding of implicit and pragmatic meanings

Strategies for communication and language needs

- Make sure you have the child's **full attention** by prefixing an instruction with the child's name
- Avoid generic and over-long instructions
- Use **visual cues** to assist short-term memory such as pictures, Post-It notes, flow charts, mind maps and social stories
- Break down instructions and processes into smaller manageable parts
- Ensure that instructions are adapted to the child's level of understanding
- Avoid giving more than one instruction at a time to **minimise short-term memory overload**
- Some children have difficulties with **sequencing**, such as applying an order to an event or story, and respond well when the sequence is written down to be ticked off their list after completion.
- Re-telling a story can be problematic so children with hydrocephalus may need to repeat a story, instructions or a process to check their understanding
- **Reiteration** assists with learning and helps to consolidate a task
- **Writing frames** are useful to create order out of the, sometimes, chaotic thought processes that children with hydrocephalus can experience
- Avoid open-ended questions in full class situations to **reduce choices**
- Structure questions for more expansive answers when there is time to talk

In social situations, children with hydrocephalus can often feel isolated because they find 'reading' the communication cues of unimpaired children difficult. **Role play** helps a child to understand the expected schema of conversations and transactional language.

2. Cognition and learning needs

Hydrocephalus can affect a variety of cognitive abilities that have an impact upon learning. It can be helpful to view children with hydrocephalus as having a range of specific learning needs, which are akin to other neurological conditions such as dyslexia, autistic spectrum disorder, dyspraxia or acquired brain injury. None of these neuro-disabilities listed are entirely accurate descriptions of the effects of hydrocephalus upon a

child's learning but they do cover several ways the condition can influence a child's cognition.

Our ability to learn and to remember information is not reflective of how intelligent we are. Children with hydrocephalus may have issues with their short-term or working memory but can have a high IQ when tested. Understanding how memory works is complex; everyone's memories are re-constructive and are not a video of events as they actually happened.

Many children with hydrocephalus will develop a good autobiographical and long-term memory with support. Once these memory skills are in place then decision-making in class, in examinations and in life can become easier.

Fatigue, headaches and the sheer effort of maintaining a good learning pace in the classroom can cause issues with attention and concentration, which have a further impact on learning.

Possible effects of hydrocephalus on cognition and learning

- Abstract reasoning abilities
- Executive functioning skills
- Working memory, retrieval and recall skills
- Visual memory and recognising visual patterns
- Processing speed and skills
- Concentration and maintaining attention on a task
- Pathological inertia - organising and planning for learning
- Multi-tasking
- Initiating and prompting
- Managing different text layouts
- Concept of time, prospective memory and anticipation
- Numeracy skills like place value, symbols, overloading of instructions and processes
- Understanding money values and budgeting
- Awareness of the passage of time, arising from prospective memory issues
- Transferring skills to new situations.

Strategies for cognition and learning needs

Memorising

- Use a variety of resources to help with memory like mind maps or audio recording, which can be visual, tactile and auditory

- Routines are important for pupils with hydrocephalus so consistency gives a sense of security, reducing the dependency on short-term memory
- Use memory aids such as visual timetables, cue cards and imagery, such as photos, alarms and recording devices to provide multi-sensory memory prompts
- Encourage the use of a diary to record their own reminders to establish routines, independence and transferable skills
- Computer generated prompt lists foster independent thinking
- Allow children to talk through the activity with staff and peers to improve recall
- Give cues, clues and 'scaffolding' to help pupils with hydrocephalus to process information Rote learning for times tables and processes assist a child's short term memory, leading to embedding in their long-term memory
- Ensure that parents and carers know and understand how school work is presented.

Organising

- Digital photos rather than generic ones personalise visual timetables and make them more relevant.
- Clear sequencing of the school day or the activities for a school trip allow a child to see a clear structure, which they can go over with their family at home.
- Colour-code books and equipment by subject and place in individual coloured folders to help children to plan and organise their own learning.
- Give a child time to organise their workspace in readiness for learning.
- Go over completed work, revisit previous work and provide positive guidance to identify gaps.
- Consolidate learning by asking the child to repeat instructions and outline tasks to embed sequences and processes before moving on to new topics.

Processing

- Decoding and answering can be enhanced by offering fewer choices for consideration
- Allow a longer response time
- Provide extra time to complete tasks

- Shorten tasks so they can be accomplished within the set time limits
- Focus on quality rather than quantity of work completed
- Paper copies of worksheets minimises the issues around transferring information from the whiteboard
- A practical, hands-on approach is vital for symbol and shape recognition
- Give plenty of opportunities to reinforce and to practise skills in different situations to build upon success
- Plan opportunities for the transference of skills through practical experience in the classroom, such as counting and sorting books to give out to children on different tables.

Concentrating

- Provide SMART attainable goals – Specific, Measurable, Relevant, Time-bound
- Keep distractions to a minimum
- Give prompts, updates and establish expectations throughout the lesson
- Group and paired work should be carefully monitored to maintain task structure
- During Assembly or 'carpet time' a child may need a stress ball or fidget spinner to avoid fidgeting to keep alert.

3. Social, emotional and mental health needs

All children and young people want to be accepted and to have a good circle of friends.

Forming and maintaining friendships for children and young people with hydrocephalus can be challenging, due to the ways some pupils process information, understand spoken communication and read body language.

Hydrocephalus may affect the way a child makes conversation or takes part in an activity.

You may notice a lack of flexibility or willingness to listen to others. Some children find it difficult to express their emotions, which can lead to frustration and poor self-esteem, as they realise the complexity of the required social skills to form and to maintain relationships.

Hydrocephalus can affect different aspects of social, emotional and mental health such as:

- Making connections and building relationships
- Feelings of frustration
- Being motivated and on-task
- Social behaviour
- Appropriate behaviour for situations
- Habitual or obsessive behaviours and compromise issues
- Eagerness to please or high compliance leading to vulnerability
- Confidence and self-esteem
- Coping with change, leading to panic attacks
- Functioning under time or social pressure
- Understanding social cues
- Reading facial expressions and body language
- Expression of emotions
- Self-regulation and impulsive behaviour
- Low level anxiety
- Varying levels of performance due to fatigue
- Concentrating when in social conversation
- Emotional and behavioural regulation.

Strategies for social, emotional and mental health needs

- **Encourage talk about feelings** with the use of visual representations of how the child feels
- Talk about the **qualities you admire** about the child in an explicit way, such as "Look at the nice thing you did there for your friend …" Positive feedback reinforces the desired behaviour
- **Positive behaviour reinforcement** strategies, which follow good practice guidelines, are essential for pupils with hydrocephalus that affects their social skills
- Allow **time for rehearsal** of speech and behaviour required for different social situations
- Modelling **appropriate behaviour** for a range of situations
- **Playing games** which require **turn-taking** or start and stop skills
- **Monitor** children to determine when TA or adult support should step in or step back

- Any **inappropriate or unexplained behaviour** should be assessed in the light of an understanding of the condition. All members of staff should be made aware of a child's difficulties in their one page profile
- Consider **one-to-one support** in unstructured situations to establish desired play skills
- **Routines** established throughout the school day, inside and outside the classroom, create security and consistency, which are important for emotional wellbeing
- **Praise and reward** systems work well for all children and have a particularly positive effect on children with hydrocephalus when small improvements are achieved
- Schools often use techniques such as '**circle of friends**' or a 'buddy seat' to relieve a child's social anxiety and to reduce social isolation
- Establish **good communication links with parents and carers**, who know their child best and will have invaluable information to support teaching and learning.

4. Sensory and physical needs

Spatial awareness difficulties can be noticed in some children and young people with hydrocephalus. In addition, a child's visual perception can sometimes be affected by the injury inflicted on their brain by CSF pressure. This can lead to difficulties with judging distances in the classroom or the playground. It can also cause problems with fine motor tasks, such as completing jigsaw puzzles.

Children with hydrocephalus may get lost easily in unfamiliar environments and find moving around in a crowd challenging. Once an internal map has been established for a child then, when changes occur in school, they are difficult for a child to assimilate. We talk about 'muscle memory' when we discuss physical tasks and skills but in reality our brains and nervous systems are holding that memory. We visualise and 'picture' physical movements in our minds subconsciously in order to perform tasks.

Sometimes children with hydrocephalus need to use mental imagery and visualisation techniques to perform a task successfully.

A multi-sensory environment is essential for children with hydrocephalus and can also have a positive impact on the learning of all children.

Sensory and physical needs linked with hydrocephalus

- Perceptual abilities
- Interpreting visual messages
- Visual judgement
- Figure-ground discrimination
- Spatial orientation and awareness
- Visual and perceptual inter-relation
- Sensory processing needs
- Hypersensitivity to noise
- Balance
- Coordination of movement
- Fine motor skills or hand skills
- Gross motor skills
- Movement to ease vestibular issues.

Strategies for sensory and physical needs

- Allow pupils opportunities and time to practise moving about in a new environment with a partner at first, especially in a new school
- **Checking accessibility** arrangements such as ramps, lifts, accessible toilets, changing places and specialist equipment is a good starting point. Small changes to the physical environment helps to start the process of inclusion
- Consider changing **accessibility arrangements** where steps and slopes cause a child difficulty when judging distances
- Supervision when moving through busy thoroughfares in school and crossing roads to different part of the school buildings
- **Verbalise spatial activities** to embed the sequence and movement required
- **Tracking** from left to right may require prompts
- A sloping desk or different coloured paper can help some children to overcome problems with following a text
- Visual distractions should be removed from texts and sheets
- **Classroom reorganisation** should be kept to a minimum.
- **Seating plans** are ideal for providing feelings of security for a child
- Offer assessments for specialised equipment aid learning, communication or fine motor skills, such as laptops and tablets

- Change **PE lessons to be more inclusive**, allowing unimpaired children to experience the same conditions that someone with a physical impairment has to consider
- Play games that require the use of **visual discrimination**
- **Construction toys and puzzles** should be encouraged to fill skills gaps.

Resources and helpful contacts

SENDCoP Special educational needs and disability code of practice: 0 to 25 years, Department for Education
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/398815/SEND_Code_of_Practice_January_2015.pdf

SEN Support and the Graduated Approach, NASEN http://www.nasen.org.uk/**Contact for Families** https://contact.org.uk **Support in Mainstream Schools Sensory Audit, Autism Education Trust** **http://www.autismeducationtrust.org.uk** http://www.aettraininghubs.org.uk/wp-content/uploads/2012/05/37.1-Sensory-audit-tool-for-environments.pdf

Making Sense of Sensory Behaviour, Children with Disabilities Team, Falkirk Council Children's Services http://www.falkirk.gov.uk/services/social-care/disabilities/docs/young-people/Making%20Sense%20of%20Sensory%20Behaviour.pdf?v=201507131117
Medical and health needs http://pdnet.org.uk/sharing/login

Inclusive sports

- **Backup Trust** https://www.backuptrust.org.uk/support-for-you/children-young-people/school-life/school-inclusion-toolkit
- **Scope** https://www.scope.org.uk/support/families/play/games
- **Change for Life** https://www.nhs.uk/10-minute-shake-up/shake-ups#xslDT2IPKCouHiS6.97
- **Youthgroup Games** http://www.youthgroupgames.co.uk/youth-group-games-for-disabled-children.html
- **Continence management** https://www.shinecharity.org.uk/bladder-and-bowel-care/bladder-and-bowel-care

- **ERIC** https://www.eric.org.uk
- **Coloplast** https://www.coloplast.co.uk/bladder-and-bowel/professional/education

- **Life Skills for Teens** http://www.falkirk.gov.uk/services/social-care/disabilities/docs/young-people/Life%20Skills%20for%20Teenagers.pdf?v=201610191048

- **What do the SEN Reforms mean for schools?**

https://councilfordisabledchildren.org.uk/sites/default/files/field/attachemnt/schools-briefing-sep-15.pdf

Recommended further reading

For a recommended reading list see National ASBAH publication *Hydrocephalus and its Implications for Teaching and Learning*

Sources:

- **Tips for Teachers** https://www.shinecharity.org.uk/for-professionals/for-professionals
- **SEN Support – Nasen** **http://www.nasen.org.uk**
- **Brain Injury Hub** https://www.braininjuryhub.co.uk