

Approaches to learning and teaching with
children who have hydrocephalus

Hydrocephalus & Learning



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Who is this document for?

The information within this document is for all staff in educational and voluntary organisations, including pre-school staff, teachers, support and classroom assistants who may work with a child with hydrocephalus.

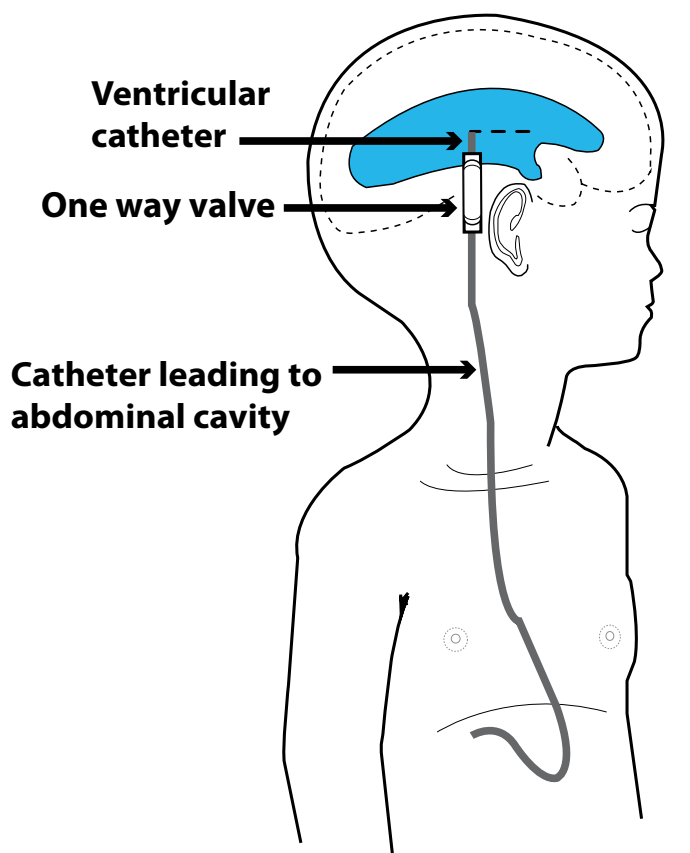
It is designed to be a helpful guide and aims to provide information to help staff meet some of the learning needs of children with this condition. It also provides useful information about teaching strategies for staff to use in a variety of different situations.

Whilst the emphasis is on educational and voluntary organisations this guide is also a useful tool for parents interested in the educational process and who want more involvement with their child's education and future learning.

What is hydrocephalus?

Everyone has cerebrospinal fluid (or CSF), which circulates around the brain and spinal cord to protect the brain from injury from a fall or serious impact. CSF also helps keep the brain healthy by removing unnecessary waste products. Hydrocephalus is a condition where there is an excessive amount of CSF that surrounds the brain and spinal cord. In hydrocephalus, CSF builds up and puts pressure on the brain, squashing the delicate tissues and causing the chambers or ventricles within the brain to swell. Without treatment, damage to the brain tissues may occur. Symptoms depend on the cause of the hydrocephalus, the age at which it develops and the extent of damage to the brain.

Most children born with spina bifida develop hydrocephalus and often have significant physical difficulties. Some children however have hydrocephalus but without obvious signs or symptoms. There is a danger that the needs of these particular children can often be overlooked or misunderstood and as a result they may underachieve as their learning needs are not met.



Ventriculoperitoneal Shunt

How is hydrocephalus managed?

The usual treatment is surgery, usually to insert a shunt (long tube) that drains fluid from the brain, normally into the abdominal cavity, allowing the fluid to drain away. With treatment, it's possible that children may lead an independent life, depending on the cause of the condition. However, there may be ongoing neurological problems which affect learning and development. No matter how it is treated, hydrocephalus can only be managed but cannot be cured.

What does this mean for children in my care?

Children with hydrocephalus, as with any learning disorder, will have varying degrees of difficulty. Some children will have more to cope with than others but all, as with any child, have their individual strengths and weaknesses. An essential aspect to helping children achieve is the commitment of staff to creating a positive and purposeful climate for learning characterised by mutual respect, trust and an understanding of the condition.

In the HMIE series "Count us in: Success for All" HMIE, 2010 www.hmie.gov.uk/documents/publication/cuisa-05.html it states that every child and young person can expect their education to provide them with:

- Tailored support which takes account of their personal circumstances and prior learning.
- A wide range of success, achievement and attainment which maximises their life chances.
- Assessment activities which give feedback to children on what and how much they have learned so they can build on previous learning and experiences.



Point for Reflection

Look at the features of best practice using the link above in the "Count Us In: Success for All" document. What changes would you consider making to your own practice?

What are the specific issues or challenges for children?

Many of the difficulties faced by children with hydrocephalus come from a slower rate of processing information than their classmates. This means it can take longer to understand information, put it into context and be able to transfer this learning into different situations. Some children have difficulty with their memory and in remembering information. Some children find writing and understanding symbols or different types of text confusing. Some examples and helpful strategies are described below:

Recall and Memory:

Potential issues	Possible strategies
Children may find it awkward to manage too many pieces of information at the same time. Visual memory may not be well developed which impacts on ability to copy pieces of text or transferring information from one situation to another.	Use notes cue cards /visual timetables. Give opportunities to repeat information in a wider variety of settings.
Remembering information may be difficult and children may choose to opt out of answering questions.	Give children thinking time to respond to questions. Use what children suggest and build on this in a clear way to give confidence. Encourage children to link their learning in different situations.
Children may become confused when faced with different layout of text, for example poetry, lists, comic strips or information from a poster.	Take extra time to go over and explain how these types of text are read and in what order. Consider the use of support from a "buddy" when creating or presenting work to others.

Planning for learning:

Potential issues	Possible strategies
Some children may have difficulty in organising themselves and delay starting an activity.	Establish routines that the child can follow confidently. Use a daily diary or visual timetable to support the child through their learning.
Children may rely on their neighbour and copy their work without understanding what they are doing.	Use realistic targets which are reinforced with children. Sensitively support the child with their task. Be prepared to go over new information with children to ensure better understanding.
Children may give up easily or run out of time to complete their work.	Involve children in small supportive cooperative learning groups with other children. Use visual clues such as, sand timers, clock countdown on the smartboard to encourage an awareness of time.

Concentration:

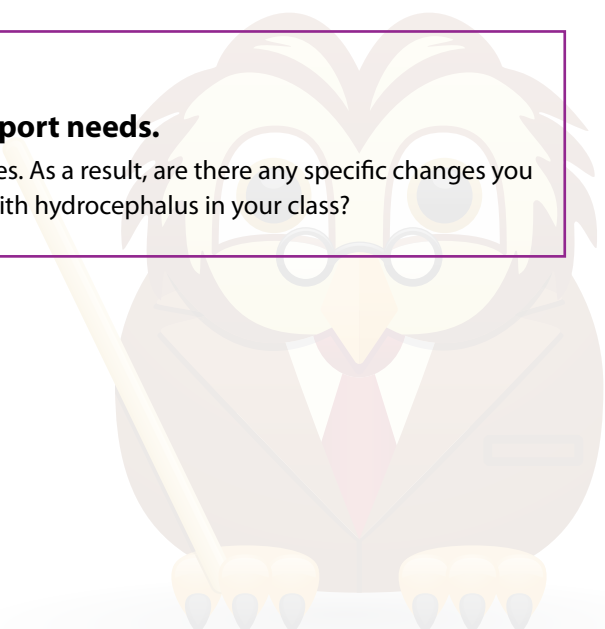
Potential issues	Possible strategies
Attention difficulties may be caused by physical symptoms such as headache or tiredness which may be due to a problem with remembering information.	Observe children to find out what types of activity helps them to concentrate better. Is it meaningful, active and with the right amount of challenge and enjoyment?
Children's behaviour may seem difficult at times due to frustration and lack of motivation in learning.	Use a range of prompts or clues to keep children on task. Present smaller amounts of information at a time. Establish what works best for the child and when possible engage their interests to encourage children to learn more.



Point for Reflection

Working with children with additional support needs.

Consider your own classroom organisation and routines. As a result, are there any specific changes you could make to ease the difficulties faced by children with hydrocephalus in your class?



Curriculum for Excellence

The national guidance for schools “Curriculum for Excellence” Scottish Government, 2009, www.ltscotland.org.uk/supportinglearners/ is very clear about supporting children and young people in their learning. It states that “Curriculum for Excellence” is a curriculum for all children and young people, and it is essential that support is provided to remove barriers that might restrict their access to the curriculum because of their circumstances or short or longer term needs.”

“Curriculum for Excellence” aims to ensure that the entitlement that children and young people should have helps them to:

- Be involved in planning and reviewing their own learning and plan for their next steps.
- Gain access to learning activities which will best meet their needs.
- Plan for opportunities for personal achievement.
- Prepare for changes and choices and be supported through changes and choices.

Therefore for children with hydrocephalus and who may need additional help with their learning, staff will be involved in interpreting the curriculum in ways which address these particular needs. In doing so, this will help enable children achieve the highest levels of which they are capable. All children and young people should experience personalisation and choice within their curriculum, including identifying and planning for opportunities for personal achievement in a range of different settings and situations. This implies taking an interest in learners as individuals, with their own talents and interests.

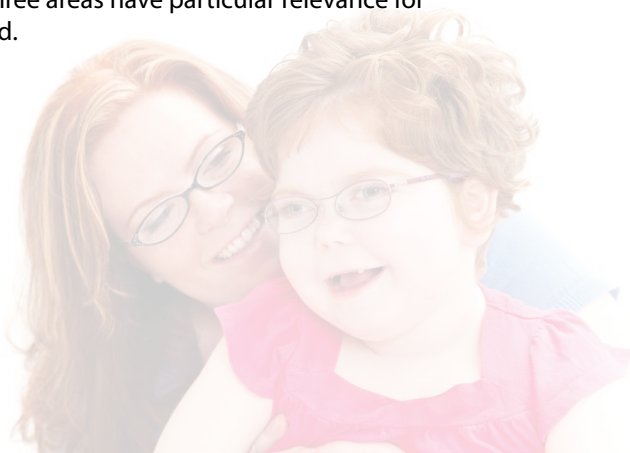
There are many reasons why children and young people may need support to help them learn. The Education (Additional Support for Learning) (Scotland) Act, 2009 came into force in November 2010. It is designed to inform practitioners, organisations and parents of their duties and rights in supporting children and young people.

Supporting children and young people in their learning involves a range of people both within and outwith the school setting, such as parents and carers, nursery teachers and nurses, primary teachers, secondary teachers, support staff, and a wide range of other professionals in statutory and voluntary sectors. In most cases, children will require an Individual Education Plan (IEP) or in some cases a Coordinated Support Plan (CSP). In good practice, plans are created taking account of the views of the child, their parent, school staff and other relevant agencies. Plans should contain long and short term targets for the child to confidently achieve. It is useful to use the agreed short term targets as a weekly working document with the child. This acts as a reminder of the next steps in learning, the child’s achievements and progress. Staff have a responsibility to ensure that targets are regularly reviewed with the child and parents to ensure the best possible provision.

Curriculum for Excellence and working with children with hydrocephalus

“Curriculum for Excellence” has been introduced to raise standards of learning and teaching for all 3-18 year olds. It aims to help prepare children and young people with the knowledge and skills they need to cope in a fast changing world to help every child become a successful learner, confident individual, responsible citizen and an effective contributor.

Learning across the curriculum is the responsibility of all staff. “Curriculum for Excellence” intends to develop, reinforce and extend learning across the curriculum particularly in the three areas of health and well being, literacy and numeracy which cross over all other areas of the curriculum. These three areas have particular relevance for children with hydrocephalus and how their learning can be best managed.



Personal Support

"The health and wellbeing of every child and young person is greatly enhanced through the individual support and pastoral care which they receive through having an identified member of staff who knows and understands them and can support them in facing changes and challenges and in making choices. Members of staff are often best placed to identify even minor changes of mood in a child or young person which could reflect an important emotional, social or mental health issue with which that child or young person needs help or support." "Curriculum for Excellence," 2009.

Health and Wellbeing

"If children and young people are healthy and emotionally secure they will be more able to develop the capacity to live a full life. Through health and wellbeing children are learning to develop an understanding of the physical, emotional and social factors that influence their health and wellbeing. With a sense of wellbeing they will be better able to deal with the unexpected and cope with adversity. It should also enable them to recognise and deal with the many different pressures in life, and identify when they need support. They should learn to find appropriate sources of information and help to make informed choices and live a healthy, fulfilled life." Curriculum for Excellence, Building the curriculum 1." Scottish Executive 2006.

Potential issues	Possible strategies
Children with hydrocephalus may be more likely to show behavioural issues.	Use positive behaviour strategies understood by all children. Some children may benefit from a particular personal emotional and behavioural plan and know they can practice their skills in a safe environment.
Some children are particularly sensitive to noise.	In organising the classroom make sure that the child is sensitively included but at times may sit in a group away from obvious distractions.
Any particular sudden change or deterioration in behaviour.	Contact the parent immediately as could be the result of a shunt problem.
Difficulties with spatial awareness may give children difficulties in managing the playground, moving objects and taking part in games.	All children need access to high quality physical activity. Children with hydrocephalus should be encouraged to do most activities. Staff should be aware, however, that a child with a shunt may need to avoid some contact sports or apparatus if such activity produces unwanted symptoms.. To help cope with playground times consider the use of a "buddy" system or a circle of friends to support the child outside.

Literacy and learning

"Literacy is fundamental to all areas of learning, as it unlocks access to the wider curriculum. Being literate increases opportunities for the individual in all aspects of life, lays the foundations for lifelong learning and work, and contributes strongly to the development of all four capacities of Curriculum for Excellence." Building the Curriculum 4. www.ltscotland.org.uk/Images/BtC4_Skills_tcm4-569141.pdf

The literacy experiences and outcomes of "Curriculum for Excellence"

www.ltscotland.org.uk/understandingthecurriculum/howisthecurriculumstructured/experiencesandoutcomes/index.asp promotes the development of skills in using language, particularly those that are used regularly by everyone in their everyday lives. These include the ability to apply knowledge about language. They reflect the need for young people to be able to communicate effectively both face-to-face and in writing through an increasing range of media. These skills can be more difficult for children with hydrocephalus as they may have difficulty with some aspects of understanding of language and literacy. It means thinking about the kinds of literacy experiences provided for children. The best experiences are those which are embedded into everyday routines, which allow children to learn in active meaningful contexts.



Point for Reflection Ask yourself the following questions:

How am I meeting the literacy needs of the learners in front of me? What could I do to help children progress well? What do I need to keep doing but what could I change to help children learn more?

All children progress and develop at their own rate and it is important to understand the potential barriers to their learning and make sure these are addressed and supported by all staff.

Potential issues	Possible strategies
Children may be very talkative but what they say can also be repetitive.	Ask questions to clarify the child's understanding. Engage in high quality conversations with the child to keep them on task.
Difficulties in responding to particular questions and comments.	Ensure all staff working with the child understands their difficulties so all can support the child appropriately. Encourage the child to explain themselves more clearly if necessary.
Have a very literal understanding of language and understanding of teachers' comments.	Ensure instructions are suitable and clear. Frequent use of the child's short term targets with the child, will reinforce learning and achievement. Make sure that formative assessment comments are clear and unambiguous. Children often respond better to a range of multi media and practical learning approaches.
Poor writing skills.	Try using a sloping desk and uncluttered written instructions. Try writing in an interesting relevant context or play situation. Using the computer for some children may help encourage children to write more imaginatively. Play sequencing games to encourage left to right. Create interesting formats which encourage the child to participate.
Following text which looks different, such as on a computer screen, a poem or list.	Encourage children to talk about what they see. Play games which help their visual discrimination. Find out what interests the child and provide interesting text to read.

Numeracy and learning

Being numerate helps us to function responsibly in everyday life and contribute effectively to society. It increases our opportunities within the world of work and establishes foundations which can be built upon through lifelong learning.

“All teachers have responsibility for promoting the development of numeracy. With an increased emphasis upon numeracy for all young people, teachers will need to plan to revisit and consolidate numeracy skills throughout schooling.” Curriculum for Excellence, www.ltscotland.org.uk/understandingthecurriculum/howisthecurriculumstructured/experiencesandoutcomes/index.asp

The experiences and numeracy outcomes contained in “Curriculum for Excellence” are designed to promote and support effective learning and teaching through interesting approaches which will enthuse and engage children. These include, active approaches to learning, use of contexts which are familiar to children, developing children’s mental agility and making links to other areas of the curriculum so that children can understand their developing concepts and skills. For all children, including those with hydrocephalus, they learn best in these situations. However for children with hydrocephalus numeracy is particularly challenging. This is because so many aspects of numeracy are dependent on other skills such as, being able to think logically, being able to transfer skills from one context to another and having good short term memory skills. It is easy for children to fall behind unless they have achievable targets in their personal plan which are worked on together with the child, parents and staff with plenty of opportunities for success.

Potential issues	Possible strategies
Poor short term memory and difficulty in mentally processing numbers.	Use a variety of active approaches to learning numbers to reinforce understanding and previous learning. Establish what the child’s interests are and use these to motivate and enthuse children.
Unsure about place value and setting out numbers.	Transfer children’s skills into real life settings for example, when lining up to go out of the classroom, taking turns while playing games. Play sequencing games to reinforce concepts and skills.
Finding difficulty in setting out work and needing to think logically.	Use a range of concrete materials to aid memory, give frequent opportunities to practise the same skill, which helps ensure success.
Some symbols may be confusing for children such as, more or less than, directional signs.	Keep instructions clear and remove visual distractions. Play games which require children to use visual discrimination. Plan how to introduce symbols at a rate which the individual child can best manage without confusion.
Many children will struggle with too many stimuli being presented to them at the one time.	Avoid similar colours, for example difficulty in distinguishing shades of the same colour and limit number of objects to a minimum.



Point for Reflection

Ask yourself the following questions:

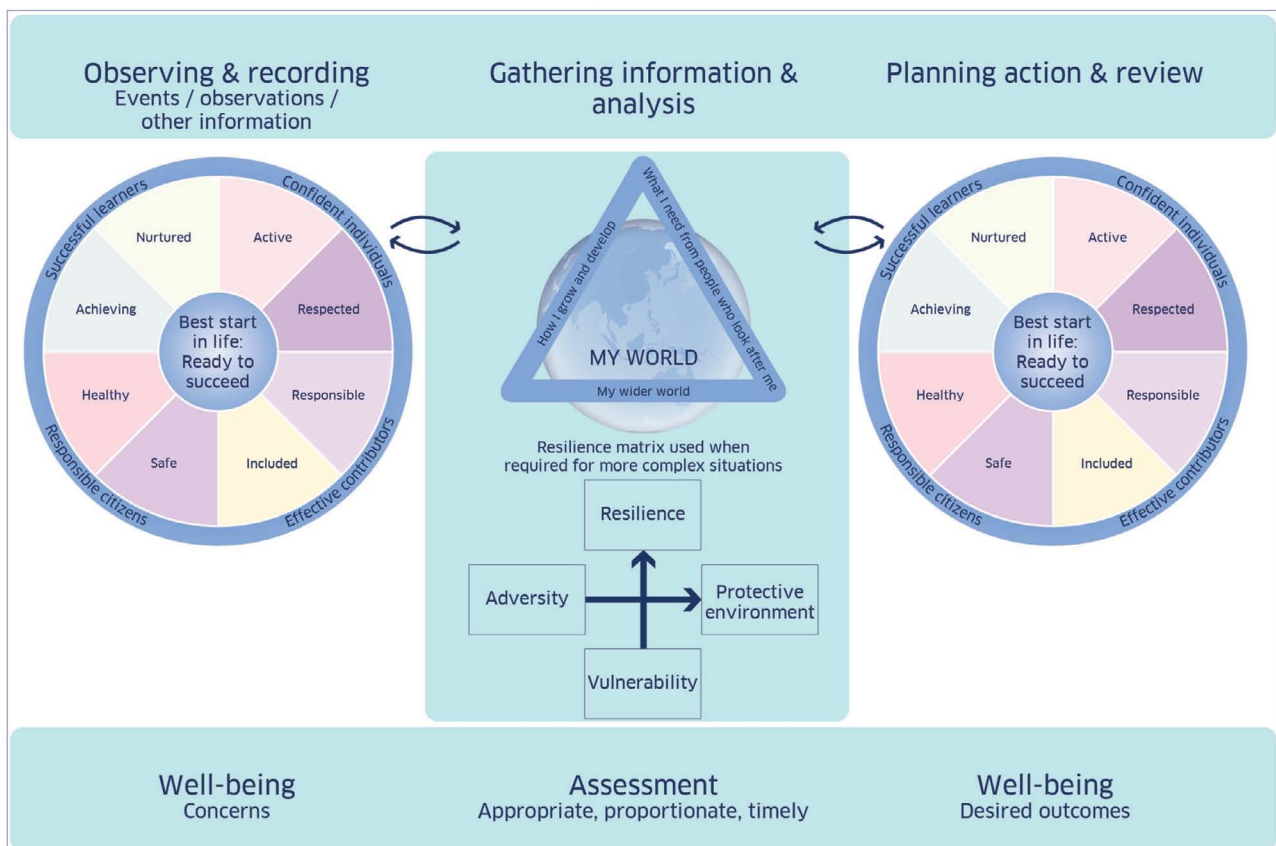
How do you plan for active learning approaches to be a regular and supportive feature of children's learning in your class? How can you organise and plan for children's experiences particularly in the area of numeracy to be meaningful but still allow for progression in learning?

Working Together

The need for multi-agency partnerships is essential to ensure that children benefit from the earliest possible intervention. Working alongside and building partnerships with parents is paramount in achieving success for all children. Time invested in finding out wider information about a child who has hydrocephalus and their particular needs and issues is well spent. This may include, finding out about which agencies are involved with the family, communicating frequently with parents to create a shared understanding of a child's needs, being responsive and show understanding that you value their input and knowledge about their child.

Getting It Right for Every Child

The Scottish Government is keen that we "Get It Right For Every Child" in Scotland by placing the needs of children first, ensuring they are listened to and understand decisions which affect them to ensure they get the very best help they require. The National practice model outlined by Scottish Government at www.scotland.gov.uk/resource/doc/1141/0118076.pdf is helpful to see the contribution that staff should consider who work with children and their families.



It is a useful reminder to ensure that children receive the right help at the right time. The Wellbeing wheel has eight wellbeing indicators. These areas are described as being nurtured, active, respected, responsible, included, safe healthy and achieving. They sit firmly within the context of Curriculum for Excellence and highlight areas in which children need to progress now and for their future. The My World Triangle helps staff understand the experiences a child has, for example what they need from others and how they grow and develop and the impact of the whole child's community.



Point for Reflection

You have a child with hydrocephalus in your class

What do you need to know about this child and what can you do better in order to help them progress? Using the link above access the practice model on **"Getting It Right for Every Child"**. Use the information in the "My World Triangle" and the "Well-being wheel" as a guide to thinking about the best possible support you could offer.

The components of the practice model have been designed to ensure that information about children and young people is recorded in a consistent way by everyone involved with the child. This should help in providing a shared understanding of a child or young person's needs and identifying concerns that may need to be addressed.

Finally

This information has been put together to help ease children's learning experiences in school or nursery and to celebrate their achievements both in school and the wider community. All children develop and gain knowledge at their own rate and in their own particular ways. All children need opportunities to build their resilience, confidence and self-esteem in a safe supportive environment to feel secure and accepted.

Children with hydrocephalus are no different.

Specialist support from Hydrocephalus Scotland, a project run by the Scottish Spina Bifida Association (SSBA).

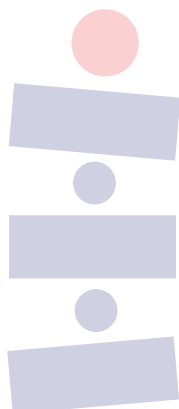
Approximately 80% of children with spina bifida also have hydrocephalus and the Scottish Spina Bifida Association has built up a significant amount of expertise in supporting children, their families and a wide range of professionals who care for, or work with, children with these specific challenges. Many children will have also developed hydrocephalus as a primary condition and again the SSBA have developed specialist expertise in this area.

If you do have a child with hydrocephalus in your establishment and you would like further support to provide for the child's particular needs the Association will be happy to respond to any request.

For further information and support please contact:

SSBA Direct Services Team on 01236 794500 or email familysupport@ssba.org.uk.

Alternatively visit www.ssba.org.uk for further information



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Further information and Acknowledgements

Scottish Government Curriculum for Excellence - online resource

www.ltscotland.org.uk/understandingthecurriculum/

www.ltscotland.org.uk/supportinglearners/

www.ltscotland.org.uk/learningteachingandassessment/learningacrossthecurriculum/index.asp

HMIE, The Journey to Excellence Improvement guides – online resource

www.journeytoexcellence.org.uk/partnership/improvementguides/workingwithpartnerstomeettheneedsofchildrenandyoungpeople.asp

www.journeytoexcellence.org.uk/learningandteaching/improvementguide/meetingchildrenslearningneeds.asp

HMIE, How Good are we at Implementing the Additional Support for Learning Act?

www.hmie.gov.uk/documents/publication/B53740%20HMIE%20A5_P3.pdf

Getting it Right for Every Child, Scottish Government

www.scotland.gov.uk/Topics/People/Young-People/childrensservices/girfec

www.ltscotland.org.uk/supportinglearners/whatisupport/policycontext/index.asp

Early Years Framework, Scottish Government

<http://www.scotland.gov.uk/Resource/Doc/257007/0076309.pdf>



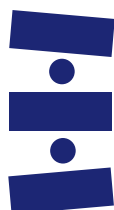
Lo-call Help Line

08459 11 11 12

General Enquiries

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