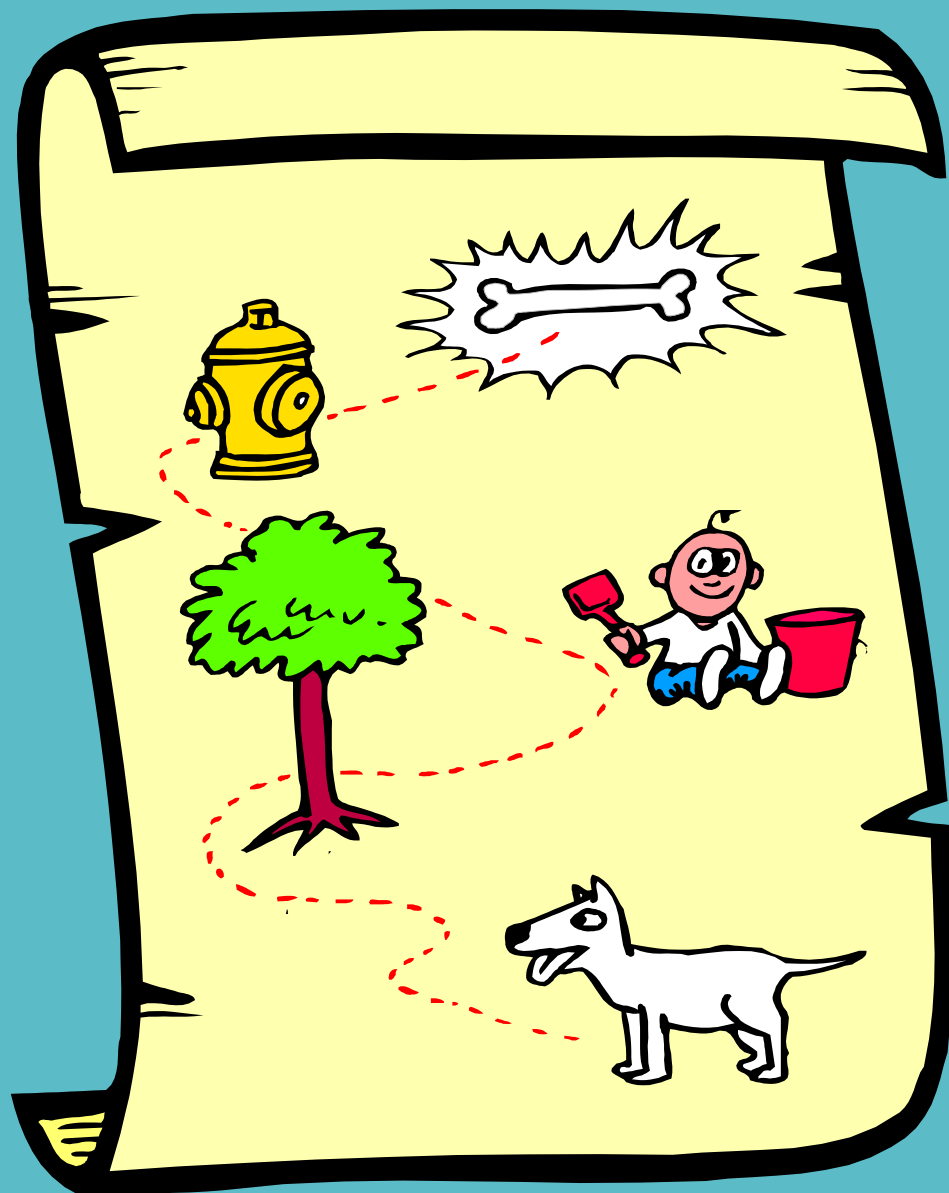


Mapping the Way

Strategies and resources for the practitioner working with children with deafness and additional specific language and literacy difficulties



Overview

This guidance document was written as a result of a SERSEN project. The survey sought to explore the incidence and issues around deaf children for whom there were concerns about additional language and literacy difficulties.

As a result of the survey the working group identified:

- ❖ A significant pupil population with these difficulties
- ❖ The need to collate and share good practice and positive interventions
- ❖ The need to establish an accessible training route for specialist teachers.

The key messages from this booklet are the need for:

- ✓ A multi agency approach to assessment
- ✓ A team approach to intervention - crucially involving parents and pupils
- ✓ Early identification of concern
- ✓ Identifying the way in which an individual child learns
- ✓ Developing successful strategies based on the child's learning styles
- ✓ Making use of a variety of approaches and resources.

"Some learners have very well developed creative skills and interpersonal skills, others have strong oral skills. Some have no outstanding talents. All have strengths."

Susan Tresman
Author: What is Dyslexia?
Director, British Dyslexia
Association

Contents

1. Introduction

Starting out
Assessing the nature of the difficulties

2. Where does my child fit?

Chart for language difficulties and strengths
Chart for literacy difficulties and strengths

3. What works for the child?

Before you start - things to consider

4. Where do I go now?

Left/right brain chart
Learning styles

5. How do you learn?

Strategies for language
Strategies for literacy

6. Information for mainstream teachers

Strategies for working with children with language difficulties
Suggestions for teaching assistants working with children with language difficulties

7. Early years

Areas of learning that may be affected in deaf children
Skills to address - suggestions for parents and others working with deaf children under the age of 7

Appendices

Appendix 1	Definitions
Appendix 2	Indicators to specific learning difficulties
Appendix 3	Areas of difficulty and strength of pupils with SpLD
Appendix 4	High frequency word mat Spelling
Appendix 5	Story planning
Appendix 6	Visual plan
Appendix 7	Science topic sample web

References and Resources

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Published 2006. This document can be found at <http://www.sersen.uk.net/DASLLD>

Introduction

Introduction

Good practice guide

The aim of this guide is to offer teachers working with deaf children some background guidance to assist with children who have or appear to have additional language and literacy difficulties above and beyond those caused by their deafness.

This guide relates to the SERSEN survey into the field of Deafness and Additional Specific Language and Literacy Difficulties and draws together experiences and practice from teachers within the South East region who are working with pupils with these additional difficulties.

Use of the term deaf

Throughout this document the term deaf has been used to describe the young people referred to. It was felt that as the original remit of the survey was to look at the problems faced by young people with hearing losses in the moderate, severe and profound range it was more positive to use the term deaf than hearing impaired.

Definition of specific learning difficulties

As a part of this guide into helping pupils with deafness and either or both specific language and literacy difficulties this study must consider the nature of a number of developmental disorders that can be classed as Specific Learning Difficulties. This guide does not seek to give labels to any problems but rather to raise awareness of issues and the underlying causes of some difficulties, and how practitioners have found ways to identify and work with deaf children's strengths to alleviate some of the outcomes of those areas of difficulty.

"The present working definition of dyslexia (see Appendix 1) has no exclusory criteria. Pupils with moderate learning difficulties or sensory impairments can also be described as dyslexic if they cannot read (Greaney & Reason, 1999). ...By definition the term 'specific learning difficulties' assumes that the literacy problem is in some way 'specific, i.e. that it contrasts with other areas of strength in academic achievement or cognitive development. Whereas 'dyslexia' looks for causal explanations, 'specific learning difficulties' have been traditionally linked with exclusionary criteria.

Turner (1997) has proposed that there is a rather different distinction suggesting that dyslexia can be considered a subset within the range of specific learning difficulties that includes autism and ADHD. Only some areas of functioning are affected in

Language is important in every aspect of our lives, 'as a member of a family, making friends, fitting in and succeeding at school, and the ability to participate in the wider world of work and leisure.'

Harris, J. 1990

each condition.”

(The British Psychology Association, 1999)

Any of these difficulties may co-occur with deafness. There may also be the problem that a pupil with one of these additional problems is going to be at risk of co-morbidity, i.e. a child with dyspraxia has an increased chance of also being dyslexic, and a pupil with ADD is more at risk of a number of other difficulties. (See Appendix 1 for definitions of various difficulties).

Language and literacy difficulties

Deaf children may have delayed speech and language dependent on their degree of deafness among other factors. Delayed speech and language means the development follows the normal patterns but is behind that expected for a child of the same age. The level of deafness does not necessarily predict the degree of difficulty experienced by a child in acquiring and developing language. There are many other factors and variables that may impact on their acquisition of language skills and cause additional difficulties (see Appendix 1). Some children may have an additional difficulty in speech and language, this can affect any or a number of the following: their speech, grammar, vocabulary, verbal comprehension and use of language. This difficulty can have a major impact on the lives of young deaf people.

From the survey results it was seen that many of the children have problems with poor short term working memory and or processing information (visual or auditory difficulties). These processing and memory difficulties can only compound the problems of acquiring good language and literacy skills for deaf children. The development of language is crucial to the ability of one to communicate.

Weakness in short-term memory, both visual and auditory, can make it difficult for a pupil to learn the correspondence between written symbols and the spoken sound (musical notation and mathematics may also be affected).

When there are auditory processing difficulties information may be lost in the process between hearing and understanding. This will be similar to a mobile phone signal being disrupted as a train enters the tunnel. The brain is left trying to make sense of a signal with holes where information is missing. A similar disruption may take place in the visual processing causing visual perceptual and information difficulties.

‘Spoken, sign and written language provide processes by which we can communicate.

Communication is a joint enterprise, whereby two or more individuals are able to share meaning’

Harris, J. 1990

Assessing and observing

There are a wide range of tests and assessments available to assess specific learning difficulties within a child. These assessments range from individual tests for skills such as phonological awareness, and ability to understand rhyme, to complete test packages, computer-based packages and checklists.

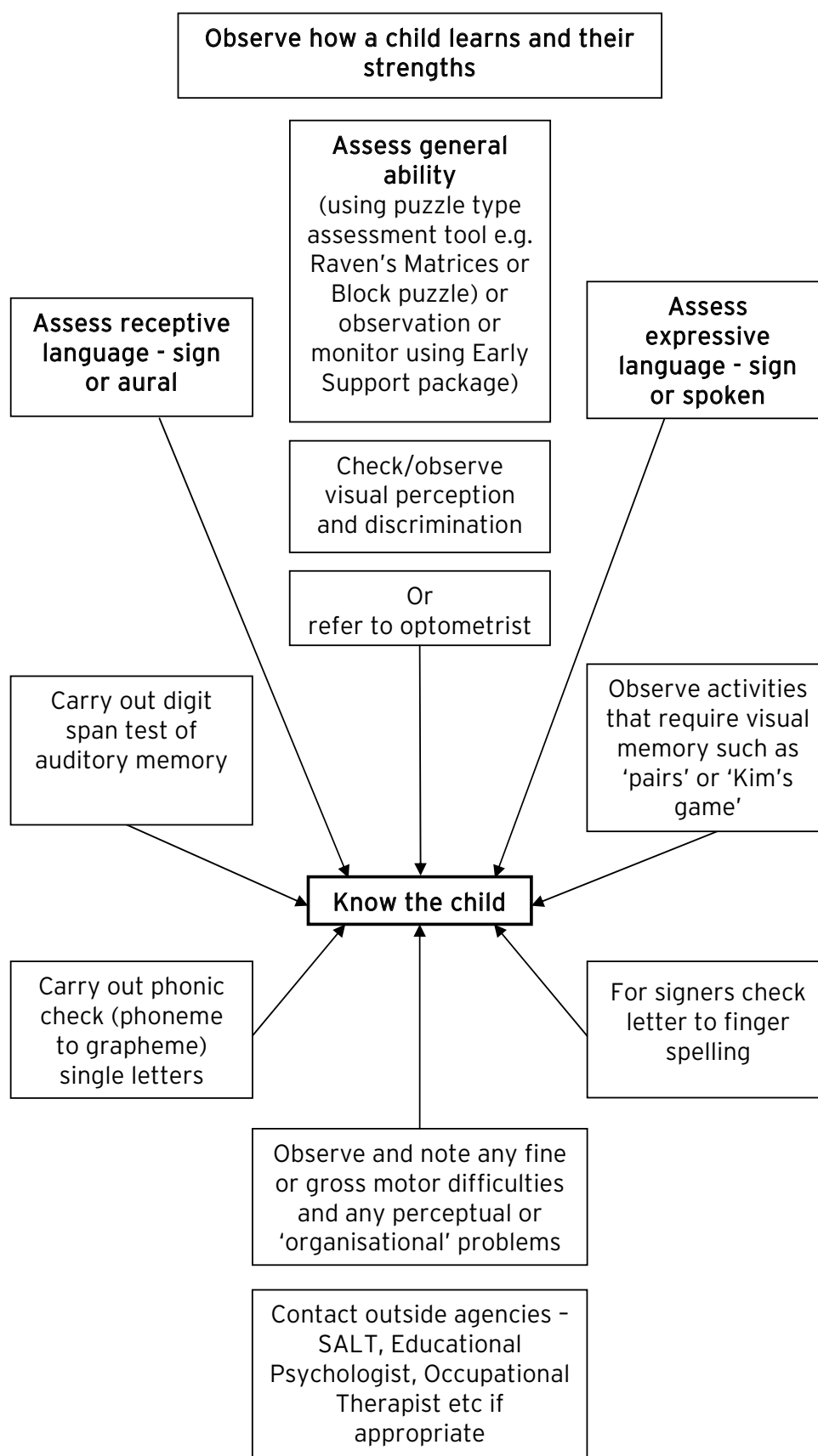
It is important to point out that most of these tests or checklists have NOT been standardised on children with permanent deafness.

In a classroom situation a teacher may not have the time or the access to such materials and could either seek outside help in assessment, from a Speech and Language Therapist or an Educational Psychologist. An Educational Psychologist will have access to closed tests that will not be able to be used by the general classroom teacher but they are unlikely to have the range of experience and knowledge of the individual deaf child that has been acquired by the specialist Teacher of the Deaf. Effective assessment requires a team approach.

This study has highlighted the fact that many specialist Teachers of the Deaf who are used to dealing with deaf children are already skilled at observing “differences” which indicate their pupils have additional problems which cause concern beyond those which one would normally associate with pupils with deafness. It is positive to note that although these difficulties are never “cured” and may persist in one form or another, they may be aided by use of good teaching and helping the pupils to acquire strategies to overcome their problems.

The special Teacher of the Deaf has particular strengths in being able to design and implement a specialised learning program. There is a wealth of specific knowledge and experience on which to draw and it is important to share some of this experience in working out how to best help each child with his/her particular and very individual difficulties.

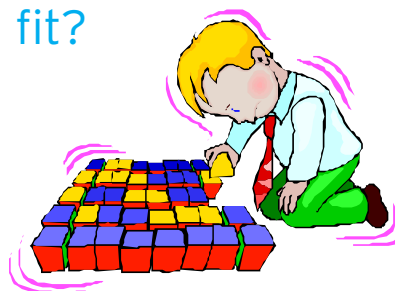
Starting out: assessing the nature of the difficulties



Where does my child fit?

2

Where does my child fit?



The following charts may be used to help teachers identify some of the areas of difficulty and strengths of their pupils.

The first sheets provide a chart of receptive and expressive language descriptors and use some of the difficulties described by teachers who took part in the SERSEN survey.

The second set of sheets cover the descriptions of difficulties found relating to literacy and other areas of concern.

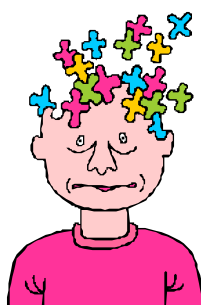
Teachers should make observations of their pupils and their work and behaviours in order to identify areas of difficulty and strength and then place them on the chart to get a clearer picture of the pupil's learning.

Identifying areas of difficulty and strength may help teachers to:

- ❑ Identify areas for further diagnostic assessment
- ❑ Identify the pupil's strengths and learning style so that they may build on these
- ❑ Identify areas of weakness that need support
- ❑ Adapt activities and teaching methods
- ❑ Ascertain any need for involving or seeking help from other professionals

Note:

Teachers should also be aware that the different “wiring” of the brain means that some pupils who have difficulties such as those described in the following charts may also have areas of strength and skills which may be built on or used to support their learning - see chart in Appendix 2 on areas of strength and weakness.



Language area	Symptoms/ manifested by:	Descriptions from the audit	Description of your child's difficulties	Child's strengths
Comprehension (receptive skills)	<ul style="list-style-type: none"> problems understanding long/complex sentences eg Maths problems higher level language skills eg inference, discussion problems with auditory memory/processing difficulties sequencing and retelling stories short/long term memory difficulties unable to bring/use information from previous experiences 	<p>'difficulty following class instructions'</p> <p>'has trouble processing what child is told'</p> <p>'answers show child doesn't understand class discussion'</p>		
Vocabulary	<ul style="list-style-type: none"> difficulties generalising <ul style="list-style-type: none"> - understanding in only one context difficulties accessing vocabulary difficulties understanding word meanings 	<p>'difficulties retaining and retrieving vocabulary'</p>		

Language area	Symptoms/ manifested by:	Descriptions from the audit	Description of your child's difficulties	Child's strengths
Expressive skills	<ul style="list-style-type: none"> ▪ difficulties with sentence structure/ sequencing phrases to form a story. ▪ word order incorrect ▪ delayed/disordered grammar ▪ difficulties with long/ complex sentences ▪ types of words omitted from speech eg verbs ▪ vocabulary limited eg 'eating food shop' for restaurant ▪ overextending eg using 'yesterday' for anytime in the past ▪ makes substitutions for unknown words ▪ higher level language skills 	<p>'unable to use expressive skills to the level of child's understanding'</p> <p>'non-standard sentences used in English and BSL'</p> <p>'can't use all parts of speech to make a sentence'</p>		

Language area	Symptoms/manifested by:	Descriptions from the audit	Description of your child's difficulties	Child's strengths
<p>Social communication and interaction skills</p> <p>Conversations</p>	<ul style="list-style-type: none"> poor eye contact fail to understand non-verbal cues eg inappropriate facial expression, intonation finds topic changes difficult difficulties repairing breakdown in conversations tend to dominate interaction <ul style="list-style-type: none"> poor turn taking make irrelevant contributions or questions asked assumes listener has shared knowledge, insufficient information given eg use of pronouns without referring to person/animal first reluctance to talk in unfamiliar environments 	<p>'difficulty with eye contact'</p> <p>'difficulties with rules and regulations'</p> <p>'not interested in what other children say or do'</p> <p>'class contributions unconnected to topic'</p> <p>'reluctance to speak in less familiar or relaxed situations'</p> <p>'anxiety in group situations'</p>		

Language area	Symptoms/manifested by:	Descriptions from the audit	Description of your child's difficulties	Child's strengths
Play	<ul style="list-style-type: none"> ▪ anti-social play ▪ immature play/social skills ▪ Repetitive play, poor symbolic/imaginative play 	<p>'delayed symbolic play'</p> <p>'delayed play and social skills'</p>		
Speech production	<ul style="list-style-type: none"> ▪ phonetic difficulties ▪ syllable reduction ▪ unintelligible to familiar/unfamiliar people, dependent on context ▪ fluency (stammering) ▪ articulation difficulties, motor speech skills ▪ acquisition of speech sounds 	<p>'sound sequencing difficulties'</p> <p>'ponderous speech and slow speech production'</p>		
Concentration/attention and organisation	<ul style="list-style-type: none"> ▪ difficulty maintaining concentration to task ▪ loses interest in tasks ▪ lacks organisational skills ▪ constant prompting to complete tasks 	<p>'difficulties engaging in a task'</p> <p>'needs constant reminders to stay on task'</p>		

Literacy area	Symptoms/ manifested by:	Descriptions from the audit	Description of child's difficulties	Child's strengths
Poor working/short term memory	Poor recall of - <ul style="list-style-type: none"> labelling /vocabulary facts such as tables, days of the week, names of things or people spelling rules stories that don't have high interest for the child instructions other 	'difficulty retaining and retrieving words to describe unfamiliar tasks' 'word finding difficulties' 'inconsistent in what they seem to 'know' from day to day' 'slow following instructions' 'poor recall of concepts' 'difficulties with rules and personal organisation' 'personal organisation a real problem'		
Visual sequential memory	<ul style="list-style-type: none"> copying from the board letters in the wrong order common spelling errors with letters in the word but in the wrong order e.g. siad (said) 	'has difficulty tracking and copying' 'letters in wrong order' 'poor memory for written information'		

Literacy area	Symptoms/ manifested by:	Description of child's difficulties	Description of child's difficulties	Child's strengths
Both	<ul style="list-style-type: none"> Reasoning - Ordering of events in a story Difficulty organising language -written and sign or spoken 	<p>'speech/sign and writing patterns not conforming to standard English or BSL'</p> <p>'Finds it difficult to generalise taught skills'</p>		
Auditory perception/ discrimination	<ul style="list-style-type: none"> difficulty hearing the difference between letter sounds - in I spy etc or for spelling 	'has trouble'		
The ability to make sense of information taken in through the ears	<ul style="list-style-type: none"> -initial sounds, sound blends (common problem for deaf children) 	'can blend some sounds but not consistently' (also AM)		
		'Difficulty in sounding out the words for writing esp. middle and final sounds'		
Visual perception /discrimination	<ul style="list-style-type: none"> difficulty in seeing the difference between shapes 	'has sight vocabulary of less than 10 words and has difficulty discriminating between some letters' (also VM)		
The ability to make sense of information taken in through the eyes	<ul style="list-style-type: none"> problems finding "the odd one out" in pictures with small differences confusion of direction b/d, p/b, letters and numbers reversed has trouble focussing on written text in bright light reports that words and letters 'swim' / move 	'copying can be a real challenge for him'		

Literacy area	Symptoms/ manifested by:	Description of child's difficulties	Description of child's difficulties	Child's strengths
Phoneme to grapheme correspondence	<ul style="list-style-type: none"> difficulty recognising the sound each letter makes (recall for visual and auditory information) 	'knows some sounds, can blend some but not consistently, unable to write anything unaided' 'phonic identification'		
Rhyming skills	<ul style="list-style-type: none"> Difficulty in hearing and recalling previous endings in order to compare things that sound alike Problems with breaking words into onset and rime for spelling - "word families" 			
Comprehension difficulties - inferences	<ul style="list-style-type: none"> tends to be very literal problems understanding complex instructions discussions - difficulties following if pace is too great 	'poor comprehension - cannot manipulate information from texts' (also ASM)		
hyperlexia -	<ul style="list-style-type: none"> pupil has learned decoding skills but the slow processing means they do not understand/remember what they have read (also AM+VM) 			

Literacy area	Symptoms/ manifested by:	Description of child's difficulties	Description of child's difficulties	Child's strengths
Concentration/attention	<ul style="list-style-type: none"> ◦ easily distracted by other minor events in classroom ◦ needs to "fiddle" while concentrating ◦ inability coping with change of focus - from practical to work/ writing activities 	very poor concentration, needs constant reminders to stay even on simplest task'		
Motor planning difficulties	<ul style="list-style-type: none"> ◦ cannot work out/copy where sounds are made (placement) ◦ unaware of body position (proprioception) ◦ presses too hard/too softly when writing ◦ cannot form letters/ numbers properly especially if in a hurry ◦ has trouble maintaining good writing position ◦ appears 'clumsy' or un-coordinated 	<p>'severe articulation difficulties'?</p> <p>'handwriting mainly illegible'</p>		

What works for the child?

3

What works for the child?

Before you start

It will be important before identifying the strategies that will help each individual pupil to address the physical, environmental and organic strategies that may help.

Preparing to learn

- Ensure a good learning environment
- Ensure the correct equipment is in place and in working order (be it pencils or radio aids)
- Be clear about what is expected from the children (and what they can expect)

Learning styles

Much research has been carried out in the last few years into learning styles. It is particularly important when we are working with deaf children that we understand their preferred style of learning.

Visual, auditory and kinaesthetic

The deaf children are at a disadvantage due to the difficulties they face in accessing auditory information and if they also have problems in a poor working memory which may affect their ability to process both auditory and visual information. It is vital that we use strategies to enable them to make the best use of their strengths to support those weaker skills.

Information comes to us through our senses and at present the three identified ways of learning (and teaching), are through what we hear, what we see, or through doing / movement. Most people will use a mixture of the three styles but many have clear preferences.

By careful observation over time and a good knowledge of your individual pupil it should be possible to begin to understand whether they remember things best if they are presented in a visual, auditory or kinaesthetic form.

Even in a very young deaf child it is possible to observe whether they are watching and learning from what they see more than hear. There will be those who prefer to do things and learn by experimentation or trial and error.

Pupils who are deaf may still be more auditory learners,

*"If a child cannot learn
the way we teach...
then we must teach the
way they learn."*

Harry Chasty, Chairman,
British Dyslexia Association

particularly if their visual recall is poor. We must make allowances in our teaching for this and also offer different support to pupils in classes where the teacher is clearly more comfortable with a very auditory style of teaching and talks too much and too fast for our pupils to understand or remember.

Left-brain/right-brain

The best learning takes place when both sides of our brains work together in harmony but for older pupils one side of the brain may become dominant (usually after the age of 7). This is likely to mean that many right-brained dominant children will have a better chance of understanding if they are presented with a preview of what is going to be learned and a review of what has been learned.

On the other hand left-brained dominant individuals benefit from more structured, sequential introduction of tasks and information building up to an understanding of the whole area of study.

Guideline principles

ALL pupils will benefit from the following principles but they are vital to pupils with hearing difficulties (of any degree) and those who have specific language and literacy difficulties.

- Make it multi sensory
- Make it memorable
- Make it manageable
- Enable time for over-learning
- Understand HOW a pupil learns and HOW you teach (metacognition)
- Involve the child in recognising what they have learned and what they would like to learn next
- If something works - take time to analyse why
- Help the child to take ownership of their own learning
- Celebrate success!

Where do I go now?

4

Where do I go now?

If you have identified a pupil as having some additional language or literacy difficulty above and beyond their hearing loss, OR you suspect that there is “something” in addition to their deafness, whether they are learning through aural, sign or total communication methods it will be important to identify their strengths and weaknesses.

We can give extra support to those areas of learning that may be weak and help the child to access information through their stronger skill areas.

First consider the chart of left/right brain learning and whether this may have any bearing on a pupil's preferred way of working. One area of strength may be used to support weaker skills.

How the brain works is more complex than merely assigning skills to left or right hemispheres. Both hemispheres interact and “the sort of thinking we encourage our children to do in our classroom, typically requires the concentrated effort of numerous modules located in many different parts of the brain across both hemispheres... we should be promoting integrated thinking.” (Geake, 2004)

Using as many areas of skill to support learning as we can will help in learning e.g. use song to support memory of facts and pictures to support learning of spellings.

Left/Right-brain learning

Left-brain	Right-brain
Verbal	Non-verbal
Logical	Intuition
Parts to whole structure	Patterns
Words/number	Whole to parts
Evaluating	Visualisation
Writing	Symbolising
Reading	Music
Mathematics	Art
	Rhyme and rhythm

Many people have skills, which *appear* to indicate they are left, or right brain dominant, while most have attributes in both areas of the brain. It should be remembered that both halves of the brain are interconnected and the hemispheres continually communicate with one another.

This is important when considering children who are left handed.

“Research indicates that there are neurological differences found in many dyslexic people, which affect the left hemisphere, dealing with language, more than they affect the right hemisphere where more creative skills are based. The left hemisphere is associated with academic skills. The right hemisphere is associated with creative skills. Most people develop a mixture of both types of skills but it is the left hemisphere skills that are essential for efficient book based learning.”

British Dyslexia Association,
1999.

“The ability of handedness to predict thinking style or specific areas of ability is at best weak and only suggestive.”

Coren, S. - Left Handers

“People are characterised as left or right brained, according to their personalities. But they can be trained to learn right brained techniques which will improve their problem- solving, creative and artistic abilities.”

Paul, Diane. - Left-Handers Handbook

Next look at the chart that incorporates this with thinking about areas of information processing such as whether there is a problem with processing visual information or auditory information. Ask yourself if any work you have done previously was more effective because there was support for learning in a visual, auditory or movement based, kinaesthetic style of learning.

Learning. In every sense

Whilst we receive and process information through all five senses all of the time, there may be a preference towards one system as we develop learning strategies. Teachers need to use different presentation styles and provide access to different learning materials and activities to ensure that children have opportunities to learn through their preferred representational system.

NB Many people use a combination of sensory skills e.g. visual kinaesthetic.

Visually-oriented learners respond well to:

- the written word
- diagrams
- pictures
- videos
- wall charts and posters

Auditorily-oriented learners respond well to:

- the spoken word
- lectures
- audiotapes
- discussion
- sound effects

Kinesthetically-oriented learners respond well to:

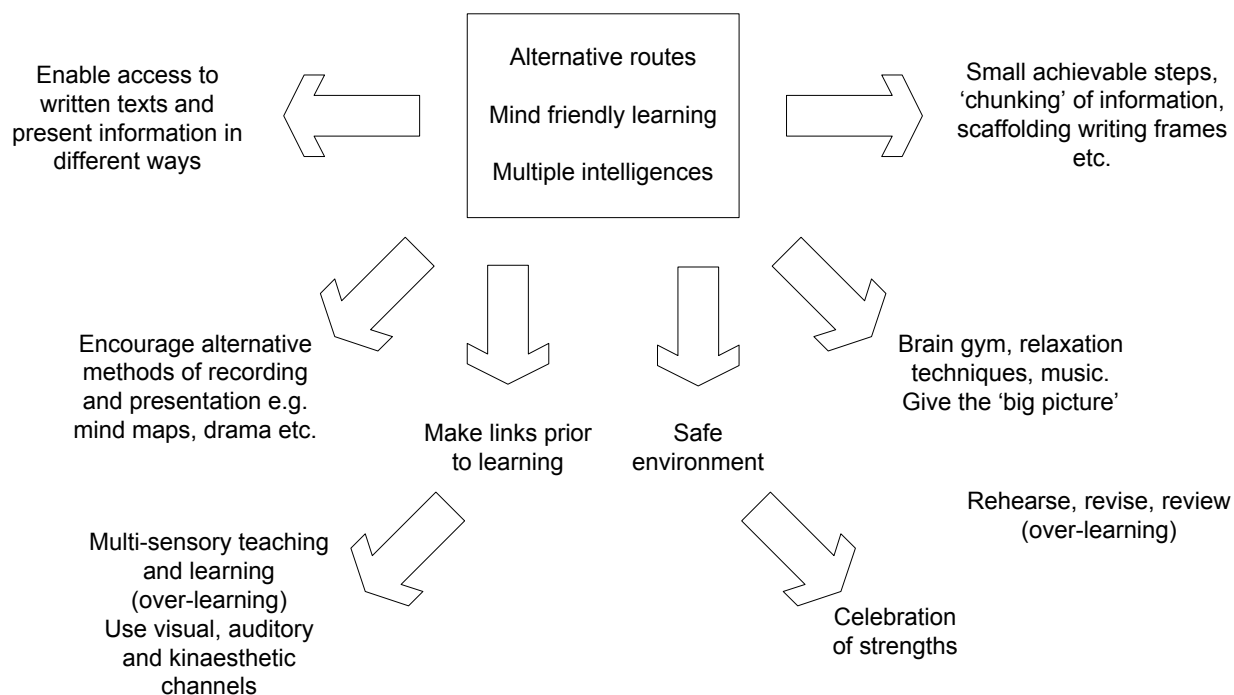
- movement
- hands-on activities
- design/create activities
- role play/drama

The information from observation of pupils preferred style of learning and their brain dominance should be considered together with other factors such as environmental effects and particular areas of strength or weakness.

Specific learning difficulties in some areas	Senses in learning	Environmental factors
<p>Poor reading, writing (and sometimes language) skills</p> <ul style="list-style-type: none"> Check visual perception Use colours that child favours if light sensitive /discrimination Build phoneme to grapheme skills through preferred senses 	<p>Weak memory skills May be stronger visual/ auditory/kinaesthetic etc learners</p> <ul style="list-style-type: none"> Support weaker skills Build on areas of strength Build in 'over learning' and 'revisit' topics (see learning styles) Make learning multi-sensory 	<p>Poor concentration and attention</p> <ul style="list-style-type: none"> Keep distractions to a minimum Ensure the environment is warm, stress free and supportive Keep task short and focused Listen to anxieties
May be right-brain dominant	Motor skills	Self image
<p>Weak right/left-brain integration?</p> <p>Left-brain learners prefer:</p> <ul style="list-style-type: none"> Structured sequential tasks Moving from parts to whole Explicit instructions Written information Working in linear way checking work <p>Right-brain learners prefer:</p> <ul style="list-style-type: none"> Open ended tasks Going from the big picture to their parts Self selected tasks Intuition, guesses, hunches, feelings 	<p>Poor organisation and presentation</p> <ul style="list-style-type: none"> Use 'brain gym' to help integration of senses Teach organisation of equipment -only necessary items in use etc Use weighted bean bag to keep child seated Use visualisation, rehearsal, talking through planning tasks 	<p>Low self-esteem, motivation Disaffected learners</p> <ul style="list-style-type: none"> Praise 5 times as often as you criticise Criticise the behaviour not the child Work on understanding of deafness -social skills Use rewards but towards self motivation/ownership of learning Ensure inclusion is really working! Not isolating in the class Engage individual interests (fun!)

There are times when a pupil has to work in class and the task is not suited to their style of learning.

This chart makes suggestions for other ways of thinking about learning tasks.



Reaching out to all learners, 1997

Here is an example of a pupil from the audit/survey and their difficulties, which may suggest their preferred learning style.

This child is having trouble communicating - speech / sign and writing patterns do not conform to Standard English or BSL rules. He needs continual prompting to stay on task. This child benefits from very visual lessons and very 'hands on lessons'.

Question: Would this child have been a visual learner but may have visual memory difficulties; the auditory modality is already compromised by hearing loss? He probably needs movement/ kineasthetic strategies to support the other modalities.

Despite improvements in sign vocabulary he is still making very little progress in literacy or numeracy. He has a sight vocabulary of less than 10 words and has difficulty discriminating between some letters.

This pupil would at first appear to be using visual mode for learning as he is developing sign skills. However progress in literacy is slow and as he has not gained an extensive sight vocabulary one would begin to suspect that the visual memory and visual sequential memory are not good.

This pupil is also having some problems in visual discrimination between some letters. This may be that he cannot perceive the difference between some letter shapes, or may not be able to recall the differences.

It will be important to give this pupil opportunity to support his visual skills through using some kinaesthetic activities as well as some auditory stimuli where possible. Perhaps the use of rhythm would help him learn key information.

It would be worth checking whether he has perceptual problems processing the visual information from print in bright light. It is worth checking whether different coloured paper or coloured overlays help make a difference to his discrimination. Some pupils suffer from visual disturbances when looking at print and this means they lose their place and lines or words 'move'.

How do you learn?

5

How do you learn?

Strategies to use with pupils with deafness and additional language difficulties

Environment

Strategies enabling access to spoken language for deaf pupils will also work well with pupils with an additional language difficulty such as:

- ↑ Consistent use of hearing aids
- ↑ Use of FM system if appropriate
- ↑ Situating the pupil in the optimum position to be able to lip read - to the side and front of the group
- ↑ Keeping background noise to a minimum
- ↑ Ensuring good lighting especially making sure the speaker's face is not in shadow
- ↑ Using a room that is acoustically friendly e.g. treated ceilings, carpeted, soft furnishing, double glazed

In addition, for pupils with additional language difficulties

- ↑ Preferably use an environment that is free from distractions such as movements from other classes, busy wall displays, classroom pets
- ↑ Keep the group close to the speaker/teacher e.g. in a semicircle so that they can get good eye contact mainly with the speaker
- ↑ Establish a routine to provide 'scaffolding' to the day
- ↑ Establish clear rules and consequences (cause and effect)
- ↑ Use a visual timetable with removable elements as each lesson/activity is finished
- ↑ Deaf pupils and pupils with a language difficulty have difficulties with sequencing e.g. what happens next - this can make life quite frightening
- ↑ Always alert pupils to any changes that will occur to the

"Communication is an important and complex process. Talking to a friend, answering the telephone, exchanging a greeting, arguing, placating, explaining and directing are all everyday events."

Duckworth M and Miller C,
2001

regular day's routine

- ↑ Know your pupils well

Curriculum delivery

- ↑ Ensure that you are building on solid ground i.e. that previous language/concepts are securely in place
- ↑ Use a language level accessible to all the pupils
 - a) Differentiate rather than merely simplifying
 - b) Be aware of which structures are consolidated or emerging and know how this child is using language most comfortably. e.g. if access is better supported by presenting details in chunks or by using narrative or interactive style

If the BPVS shows that a pupil is understanding vocabulary at a 6 year old level then the lesson will need to be delivered at that level even if it is a Key Stage 3 topic.

- ↑ Cater for learning style - use tools necessary to establish that style if unsure e.g. CALSC blocks (see case example earlier)
- ↑ Use visual/tactile aids to support new vocabulary
- ↑ Use sign if appropriate including:
 1. Cued articulation for phonology
 2. Total Communication (BSL based signs)
 3. Paget Gormann (promotes English syntax)
 4. Cued Speech
 5. Makaton (pupils with learning difficulties)
- ↑ Establish auditory memory - e.g. digit span
- ↑ Chunk new material to take account of this
- ↑ Establish visual memory (as a strength or a concern)
- ↑ If appropriate develop strategies to 'remember' e.g. clear small steps with links to next step, possibly strategy card, visual image or musical piece to trigger memory
- ↑ When asking questions:
 - give the children more time (space) for processing and deciding what to say.
 - 'chunk' information
- ↑ Building and extending vocabulary - help the children to

develop links between words e.g.

- categories - clothes, transport etc.
- word association (pairs) - knife and fork, fish and chips, table and chair
- words with similar meanings (synonyms) - said, mumble, mutter,
- opposites - heavy/light
- words with multiple meanings - pupil, train, stamp, light, tap, sink

↑ Language across the curriculum

- use of word webs/ language maps.
- provide visual resources to help explain new words
- use of role play and gesture
- story telling } To explore and
- conversation sessions } extend language
- regular experience of success

↑ Use of visual and organisational tools e.g. mapping/mind-maps

↑ Focus on vocabulary - vocabulary webs/individual reinforcement activities/ categorisation/memory games

- Visual cueing & symbolic support - gestures/Widgit/colour coding parts of speech/shape and colour coding concept cards

↑ Clear small steps for tasks e.g. timed small step tasks, more time per task, short steps activities

↑ Multi-sensory approach e.g. Spotlights

↑ Use of auditory feedback loop- reading aloud for self-correction/repeating multi-stage instructions

Memory & sequencing programmes e.g. memory games

↑ Work through text- editing written work/structured reading activities e.g. ERR (Early Reading Research).

For pupils with semantic/pragmatic difficulties

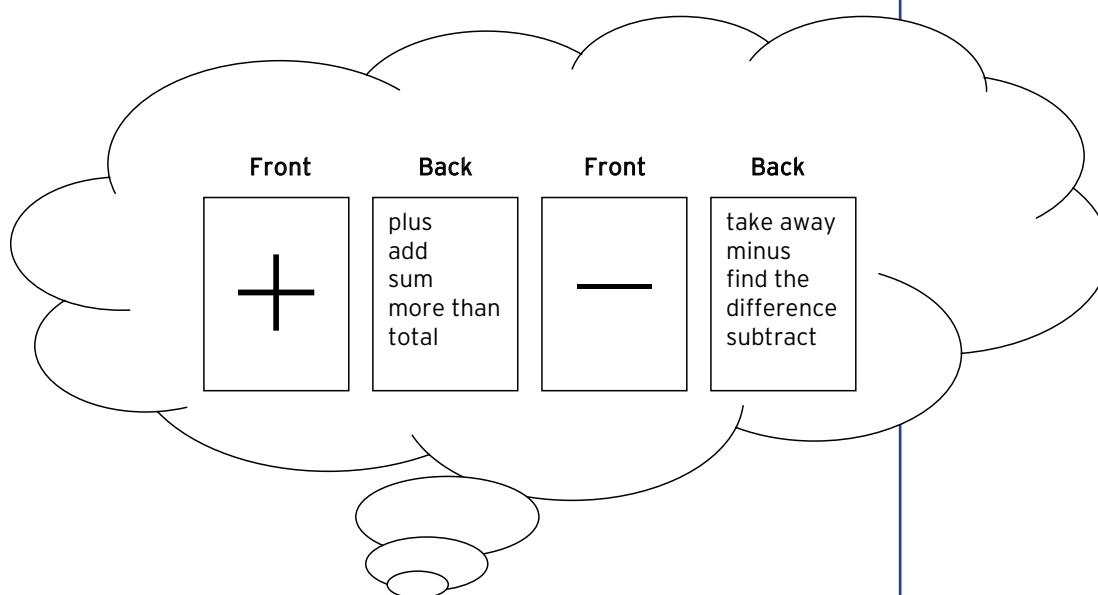
Use pragmatic/emotional literacy support e.g. feeling face cards, PATHS (Promoting Alternative Thinking Strategies), social skills group (SULP - Social Use of Language Programme)

See reference section for resources mentioned.

Suggestions for Teaching Assistants working with deaf children with language difficulties

- ❖ Use visual supports
 - Timetables with pictures or symbols (see Appendix 6)
 - Key vocabulary in words, symbols or pictures. Draw information to provide a record of discussions
 - Plan stories with pictures and drawing (see Appendix 5)
- ❖ Simplify language the child needs to understand
 - Change long or complex sentences into shorter, less complex ones
 - Use simplified vocabulary and link with more complex words e.g. 'change' and 'alter'
- ❖ Provide ways to give answers or demonstrate understanding using simple language
 - Use picture or symbol boards for pointing responses (Widgit and www.do2learn.com for symbols to use on cards/boards)
 - Use forced alternative questions with a visual representation for each alternative
 - Use pictures or words that can be manipulated to give responses e.g. matching linked cards, grouping cards that are linked to one topic
- ❖ Introduce new vocabulary before it is needed to learn a new concept
 - Use keywords in everyday conversations before they are introduced to teach a concept e.g. 'double'
- ❖ Provide structured, safe opportunities to use skills
 - Use language in a familiar game so that the child is familiar with part of the task
 - If a child can use a skill with one adult, plan to transfer this skill to situations with one child, small and then larger groups
- ❖ Withdraw support in a planned way
 - Look at the support you provide that helps your pupil succeed e.g. verbal reminders, physical prompts, etc.
 - Plan gradual withdrawal of the support to develop independent learning skills

Make “memory jogger” cards for maths symbols



Case study

P. Age - 10.08 Severe deafness

P. has uneven development - pockets of knowledge/literacy and numeracy skills.

SATs Reading - 3C, Maths - L3

BPVS - SS 90, TROG - SS 94

NFER -reading 8.03 spelling 8.1

Retention and generalisation is a problem.

Working memory poor. Personal organisational skills problematic

- Although the reading and spelling levels are only slightly below the receptive language vocabulary and grammar scores, together with the memory difficulties and poor organisational skills there is cause for concern.
- Strategies to support poor memory and multi sensory learning including lots of repetition, revisiting are necessary.
- Rather than education being a series of “one off” experiences” a better approach is a ‘spiral’-type curriculum - where important concepts are met over and over again, but in a different context to facilitate generalisation as well as to maintain interest”. (Geake, 2003)
- Charts of things to remember made on the computer by the pupil will help organisation of school equipment etc.

Suggestions for support in literacy - applicable to all school aged children but especially for KS1 and KS2

Preferred modality

- Strong visual input of word/reading/pictures/diagrams/illustrations/colours
- Listening, need to hear information, repeat, discuss, ask questions
- Use of motor memory writing, drawing, tracing

Or... combination of all using all senses benefiting from structured, multi-sensory, cumulative approach.

During literacy work

25 minutes' work - 5 minutes' break - brain breaks

Helping develop planning and organisational skills

- ↑ Support with organisation of equipment/time /timetable [have accessible spare equipment]
- ↑ Give instructions visually as well as verbally
- ↑ Help pupil break down tasks
- ↑ Use open-ended questions to ensure instructions are understood
- ↑ Encourage pupils to explain task to a partner
- ↑ Give structure of lesson in visual/diagram form
- ↑ Use games to develop memory
- ↑ Write key words on board or on whiteboard on pupil's desk
- ↑ Write homework on board or in pupil's diary. Check pupil has recorded homework correctly
- ↑ Organise whiteboard -use different colours for different sections (or different coloured tapes for each line; used down side of board will help tracking)
- ↑ Try to extend capacity -e.g. when copying off the board try to remember more letters rather than copying letter by letter - remember in 'chunks'
- ↑ Use song and rhyme to aid the memory/retention of facts or information e.g. sung alphabet

PRAISE! PRAISE! PRAISE!

Supporting spelling and vocabulary skills

- ↑ Write, say aloud, cover, and write again
- ↑ Practise cursive writing in air/whiteboard/chant sound/name
- ↑ Divide syllables with pencil line
- ↑ Make picture books to provide pictorial memory hooks for

- sound
- ↑ Use wooden alphabet, felt or sandpaper letters to teach sequence/names - close eye, feel shape
- ↑ Develop own notebook to practise difficult words
- ↑ List key vocabulary on board or give pupil own list on desk

Partner activity:

Trace letter shapes on child's back and see if they can guess the name and sound of the letter

- ↑ Make sure that vocabulary is not "over simplified" as children's language needs to grow e.g. using "juice" or "drink" to cover every form of drink or drink container - children need to hear "cup" "glass" "mug" " beaker" and others when they start developing beyond basic language skills
- ↑ Mnemonics for spellings - 'save animals in danger'-'said',
- ↑ Memory tricks for silent letters in spellings e.g. 'island' - 'is land', 'I to the end will be your friend'.
- ↑ Association of ideas/visual clues e.g. 'Yolk'

Supporting reading skills

A deaf child who cannot access sound sufficiently to use phonic strategies will need to use additional visual means to learn to read. They need to associate word shape with its signed and object or picture equivalent. They may not be able to build words from individual sounds but they can learn the visual equivalent of onset and rime by learning the end part of one word associated with its sign or fingerspelling. Letters can be changed to make a new word (different sign). E.g. 'cat' take 'at' and add 'm' = 'mat'.

- ↑ Work on 'word families' by seeing the written version of the word just as children working on the phonic approach will learn using the written form with the phonemic sounds.
- ↑ Give copy of notes rather than expect pupil to listen and write - to encourage
- ↑ Highlight key points
- ↑ Ensure print is of correct size- good contrast between text and background
- ↑ Use finger/ruler/card to follow text [hold ruler/card above

- ↑ the text being read] and 'place marker'
- ↑ Look at illustrations before reading

Supporting writing skills

- ↑ When planning, pupils use different colour pen for characters/setting/plot
- ↑ Group brainstorming of ideas - ideas written on cards - organise/group cards in paragraphs
- ↑ Mind maps-model use ICT program
- ↑ Skim read main points, produce spidergram, develop secondary points- model
- ↑ Posters
- ↑ Need more practice than other pupils -build in opportunities to rehearse/consolidate difficult areas

Creative writing

It may help children to develop creative skills if other ways of recording are considered.

- ↑ Use a pictorial story board format if they are good at drawing
- ↑ Scribe for the child
- ↑ Separate the various skills - it can be hard to do good handwriting, spelling and create a good story
- ↑ If the pupil has good oral skills use a tape recorder to record a story
- ↑ Use the story planning grid to get down key ideas/story outline plan
- ↑ Use 'the story hump' to make story cards as a support for story planning (see Appendix 5)

Handwriting

- ↑ Cursive script is encouraged as it helps the writing to have a flow to support the visual and tactile memory of the letter shapes
- ↑ Draw the cursive letter for the child to trace over, draw a large letter in the air, draw on clean space (not tracing), draw letter with eyes shut, make a BEST drawing - each time say the letter sound and name e.g. "Puh is pea."
- ↑ Use a sloping surface if this helps with posture for writing
- ↑ Left handers may need to be positioned with their left arm at the outer side of the desk to avoid bumping the next child (this may be difficult if the child has a "better" ear that needs to be considered when seating them)

Refer to "Left Hander's Handbook" see references - useful

information about left handed people and suggestions for left handed children.

Case study

L.Age -7.3 Profoundly deaf

L. has made very slow progress in literacy. Poor infant SATs.

Reading - Working towards, Maths and Writing - L1.

NFER comprehension - 4.9

BPVS - 6.6

Great difficulty in copying from the board. Father dyslexic.

- The difficulty with copying from the board suggests a visual memory difficulty may be compounding the issue of the deafness.
- Work on extending the size of the "chunk" remembered and copied. E.g. if he can remember 2 or 3 letter chunks rather than 1 letter at a time, will mean less glancing up and down, tracking (teach him to say the chunks to himself)
- Own script to copy rather than from the board would help also.
- Make tracking easier by writing in different coloured chalks or pens for each line.
- Support visual memory with multi-sensory teaching
- See 'hint' above re tracing letters on back

Suggestions for tutors of older students with literacy difficulties

This advice can be equally well applied to working with deaf students when accompanied by the appropriate “deaf friendly” advice on the problems associated with background noise and the need to face the student when talking.

User-friendly text

- ❖ Where possible produce handouts – to avoid asking students to copy from the board
- ❖ Use a clear font e.g. Arial, Century Gothic (both found in Word).
- ❖ Use a font size of no less than 12pt, preferably 14pt
- ❖ Avoid blocks of italics
- ❖ Use clear, bold headings and subheadings
- ❖ Avoid complex sentence structure – material in bullet point form is more easily accessed
- ❖ If possible double space the material
- ❖ Left justify only
- ❖ Use cream or blue paper to provide a more comfortable contrast than black on white.
- ❖ Leave space for student notes

General teaching points

- ❖ Think carefully before asking students to read text out loud
- ❖ Always stress strengths – ignore weaknesses
- ❖ Don’t hurry through material
- ❖ Always review points using a variety of means
- ❖ Give a clear outline at the beginning of the session
- ❖ Write all new spellings on the board
- ❖ Always repeat and rephrase questions posed by others, and if appropriate contextualise.

Information for mainstream teachers

6

Information for mainstream teachers

What are the particular problems facing a deaf child when it comes to literacy?

A deaf child does not always:

- Have the same language levels as a hearing child of a similar age as they may not have heard and therefore understood the “*carrier language*” in speech. If their speech is telegraphic (using only key words) they may not understand the nuances of language.
- Have the same knowledge of *vocabulary and syntax* as a hearing child of a similar age
- Have the same understanding of verbal concepts e.g. *temporal concept*, such as yesterday, tomorrow etc. or *comparatives* such as big, bigger, biggest etc.
- Understand words that have the same spelling but different meanings (*homonyms*), or words that have the same meaning (*synonyms*).
- Have the same ways of understanding information, so they may only perceive *the literal* and be unable to read “between the lines” for *inference or abstract concepts*.
- Find it easy to be imaginative due to their literal understanding of vocabulary and phrases such as *idiomatic sayings*.
- Have an ability to *reason and hypothesise* about *the why*, things have happened, and so be able to read and understand “beyond the text”.
- Use phonic skills in the same way as a hearing child as they can’t hear to *blend sounds together*.
- Read for meaning in the same way as a child with a better *reading rate*. If the decoding of the printed word is slow and laborious the child may forget the words in the sentence before they reach the end of it.
- Remember what they have already read to be able to use *semantic, syntactic and contextual clues* when reading the next word.

- Be able to *cope with the pace* of a whole class lesson. As they may mishear and lose the flow of the lesson.
- Capture the *key points of the lesson* in their attempts simply to keep up.
- They cannot *divide their attention* between looking at the teacher to be able to lipread AND look down to take notes whilst 'listening'.
- *To follow the answers of other pupils* to questions. They need to be alerted to who is answering so that they can turn before the speaker answers. Or they need to have both question and answer repeated.

Fletcher's 2/3rds Rule

2/3rds of classroom activity = talk
2/3rds of that talk = teacher talk
2/3rds of that teacher talk = directed talk

If 80% of the classroom activities are also visual, then a great deal of the time we are asking children to process information through both primary sense modalities simultaneously.

Deaf children cannot write, listen and lip-read all at the same time but this is what they can be expected to do.

What is different for children with a deafness and Specific Literacy Difficulties?

- Depending on the severity and frequencies affected by the hearing loss, they may not have a fully developed 'sound system'
- They may not be able to access the auditory cues needed to process phonic information
- They are likely to have poor auditory memories
- Their language delay will mean that they do not have an understanding of the vocabulary of reading and literacy
- They have not "picked up " information on sounds/phonics discretely and this will have to be taught
- They may need more visual support for phonic work
- The pace of the literacy hour and the short stay on each sound may leave them at a disadvantage
- The fact that deafness has a neurological pathology may mean that there is more chance of other difficulties e.g. visual perception and discrimination or motor/dexterity difficulties
- A deaf child may have good cognitive abilities that are masked by their specific language or literacy difficulties

Whether a child is deaf with no other difficulties or they have additional problems as mentioned in this document, the key to support for their needs is to identify the optimum conditions for learning for that child.

Once the particular strength and learning style of the child is identified:

- an individual structured programme is required
- using a whole team approach
- with a high degree of success guaranteed

Early years

7

Early years

- The best predictors of success in literacy are the language levels of a hearing child when they enter school, together with their understanding of phonics.
- This raises serious issues for youngsters with any level of hearing difficulty, which is likely to impact on their language acquisition and development.
- Auditory perception, discrimination, auditory sequential memory and auditory categorisation are likely to be affected by deafness to varying degrees.
- Most deaf children are going to be using some visual cues and strategies to help support their listening skills. In the case of many deaf children, they may well rely on visual/signed communication for much of, if not the bulk of, their information about the world around them.
- If a child also has any additional problem with any of their visual perception, discrimination and visual sequential memory, they are going to find it even more difficult to make sense of the symbols that we use to learn to read i.e. letters.
- The move to greater emphasis on phonics in school means that they need to be able to perceive and discriminate between the letter shapes, and be able to relate the sounds or phonemes that the letters make to their written form or grapheme.
- Any disturbance or apparent problem with seeing symbols or pictures clearly needs further investigation (it may require a specialist test not just an orthoptist if the child says print 'moves').
- The importance of story, rhyme and play-scripts is even greater for children who are vulnerable language and literacy learners (see "Story time plus" in Appendix 5).
- It is important to encourage children and not to do things for them because it is quicker - they will learn to be "helpless".
- One can see that for any of these deaf children any additional visual or memory problems act as a 'double whammy'.

Suggestions for parents and others working with deaf pre-school children, (whose development of early skills is giving cause for concern)

Monitoring of children's development in communication and language skills using the Early Support Monitoring Protocol is recommended for 0-3 year olds as this will inform work on all areas of language and communication.

The key need when considering minimizing any difficulty with the development of good literacy skills is the development of language as a foundation and this must be a priority concern.

Work on developing all other key skills towards the early learning goals but be aware that you may need to make activities accessible through a multi-sensory approach

There are many materials available on supporting and improving listening skills - see Resources list at the end of this document.

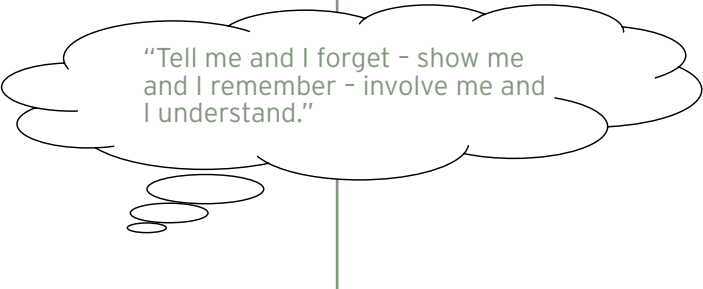
The Ear Foundation's Cochlear Implant materials are a useful source of information for Early Years work with deaf children including those who do not have implants as they address issues related to deafness in general.

Preparation for school - helping to develop key skills

- ↑ Make activities multi sensory
- ↑ Give instructions visually as well as verbally
- ↑ Use games to develop memory
- ↑ Use visual timetables, calendars and charts
- ↑ Use pictures or models to support news or sharing of information

With ALL activities:

- ↑ Say it, as you do it
- ↑ Say it, as you see it, as you do it



"Tell me and I forget - show me and I remember - involve me and I understand."

Helping develop auditory perception and discrimination

- ↑ Starting out with perception of sound - responses to different voices and environmental sounds
- ↑ Use toy sounds to help develop awareness and discrimination of different animal and toy noises
- ↑ Guess contents of a tin from sound
- ↑ Sounds lotto - make your own version as well as bought ones (get the children to help with recording the sounds e.g. toilet flushing)
- ↑ Developing sense of rhythm
- ↑ Clapping beats of name
- ↑ Clapping to the beat of song
- ↑ Shaking musical instruments to the conducting of teacher
- ↑ Being aware of when to stop and start, musical bumps or statues
- ↑ Move to the music e.g. dancing, marching, musical games
- ↑ Use music for recalling sequencing: E.g. clapping rhythms to copy; singing spellings helps some to remember. Sequence songs. E.g. "10 in a bed"; "If you're happy"; etc. Make it visual - (use "song mitts" - The Puppet Company) ("There were Ten in the Bed"- Child's Play International Ltd - moving dial to make children 'fall out')

We can confuse children when using the term 'sound' in phonics e.g. we use it for listening to - the 'sound' is it the 'name' or the 'sound' of the letter?

Instead it may help to talk about listening to the "noise" a letter makes: is it the 'name' of the letter or its 'sound'?

Developing sense of rhyme

- ↑ Singing nursery rhymes
- ↑ Finger play rhymes
- ↑ Use written form to point out letter rime patterns (many deaf children will not be able to hear and hold the memory of the rhyme sounds in words so they need to see “the letter/sound families” e.g. “rain” and “train” have the same letter patterns or rime but start with a different letter or onset.

Developing auditory memory

Support with visual cues, pictures, models etc

- ↑ Rhymes (as above)
- ↑ Rhythm (as above)
- ↑ Listening and/or watching story telling
- ↑ Support listening with use of story sacks or puppets, to give visual help understanding and therefore memory of the story (see Appendix 5)
- ↑ Tell stories with actions that all the children can chant and move to e.g. ‘Bear hunt’

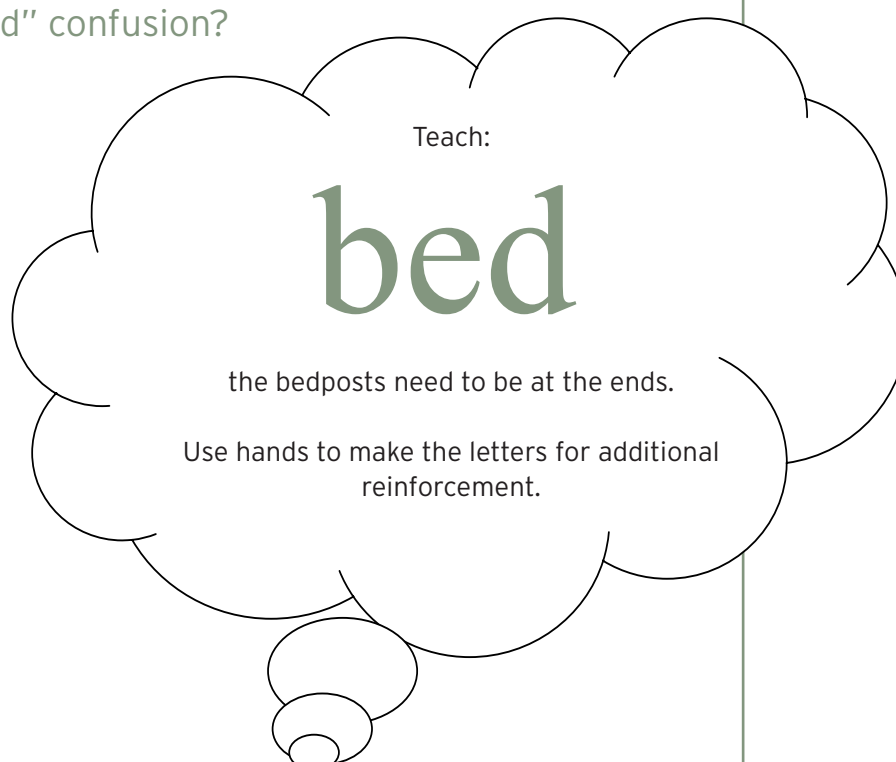
Helping develop visual perception and discrimination

- ↑ Spot the difference puzzles.
- ↑ Find the odd one out.
- ↑ Matching and sorting games.
- ↑ Making shapes with sticks, straws and rods.
- ↑ Completing jigsaw puzzles.
- ↑ Encourage the use of language in naming and sorting shapes, objects and toys.
- ↑ Use a story strip with 4 pictures. Cut up the strip and ask

pupil to reconstruct story. Gradually increase number of pictures.

- ↑ Use familiar sequenced picture puzzles e.g. getting dressed, events of the day, baking a cake.
- ↑ Arrange a sequence of objects, e.g. fork, knife, spoon or coins in order of size, then mix the sequence and ask pupil to arrange.
- ↑ Make patterns with beads, coloured blocks or macaroni. Ask pupil to copy the sequence.
- ↑ Use a calendar or chart to mark off the days. Sequence days of the week. Talk about how many 'sleeps' until an important event.
- ↑ Act out a sequence of waking, dressing, breakfast, going to school etc.
- ↑ Discuss any sequence activities - growth of a plant: assembling of car, sunrise to sun set.
- ↑ Allow practice in verbalising sequences to other people e.g. memorise a message to another teacher or TA. Keep it short and give a visual prompt.

"b" and "d" confusion?



Activities to improve visual memory

- ↑ Memory game - select only a few pairs of cards.
- ↑ Happy Families game
- ↑ Kim's game - begin with 3 objects then go on to 6 or 8.
- ↑ Show 2 or 3 objects for a few seconds. Cover and ask pupil to name them. Increase number.
- ↑ The pupil needs to be encouraged to rehearse what has been seen in order to remember it.

Helping develop

- ↑ Knowledge of colour - e.g.
 - make collection of items of one colour -label in colour
 - colour a picture of a 'hidden' item with colour coding
 - use a comparison to help store the colour in the memory e.g. 'yellow like a banana', 'red like a fire engine' - show the item.
- ↑ Knowledge of number - e.g.
 - use concrete items to count long after you think children can count
 - bring counting activities into everyday routines e.g. number of people present; counting decorations for a cake.
 - Use digit shapes with peg holes in
 - Do puzzles of animals and count the number of legs they have - group them into 2 or 4 legs - put a large number shape onto the animal - count out buttons for the legs on each animal.

Helping develop motor skills

- ↑ Use 'Brain Gym' to encourage total sensory integration and body awareness
- ↑ Use 'write dance' program to practise writing/drawing movements to music

- ↑ Copying patterns
- ↑ Pupil to trace around shapes with their finger, and then draw simple shape on paper.
- ↑ Trace over large simple outline drawings of things related to topic
- ↑ Use spring scissors for cutting - draw a heavy outline for children to follow
- ↑ Teach children to turn the paper not their scissors
- ↑ Teach them to cut in from the outside on shapes with awkward angles

Appendix 1

A1

Appendix 1

Specific Learning Difficulties

Definitions of various problems that may cause language difficulties

Articulation difficulties - the child's speech may be unintelligible due to problems producing, omitting or reducing sounds or syllables.

Developmental articulatory/verbal dyspraxia - difficulty with planning and controlling the sequential oral movements required for clear speech, when there is no damage to the child's muscles or nerves.

Dyspraxia - the child is unable to organise sounds, words and utterances in connected speech. (see also previous section on specific difficulties)

Dysphasia - this term applies only to children who were following the normal pattern for speech and language development and due to an illness or trauma, experience language difficulties (normally a term used with adults after a stroke or head injury).

Semantic - pragmatic disorder - may be defined as a child with poor vocabulary and difficulties with general interaction, both verbal and non-verbal.

Auditory Neuropathy - a neuropathy: - (a functional disturbance or pathological change) of the auditory nerve due to an inflammatory lesion or non-inflammatory reasons.

The nerves may be firing in response to sound, but because of the mis-timing at the neural level, the response may not be evident. The detection of sound may be intact but discrimination between sounds is affected due to temporal processing problems. The majority of children with this condition will have difficulty understanding speech, even in quiet, and universally will have a particularly hard time in noise. Hearing may truly fluctuate as the neural firing patterns/dys-synchrony changes. The degree of severity will vary from child to child.

"Most people acquire the rules to develop spoken language without any formal instruction. We are not taught to talk."

Martin D and Smedley M 1997

Definitions of various problems that may cause literacy difficulties

These disorders may be confused with one another or they may co-occur. Such disorders are Dyslexia, Dyspraxia, Autism/Asperger's Syndrome and ADD/ADHD (Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder).

Only some areas of functioning are affected in each condition. The term 'specific learning difficulties' focuses on an analysis of what a child can or can't do in relation to the tasks of reading and writing and spelling ability. In this guide we are also considering the language development aspect as well as its impact on literacy skills, as good language levels underpin all other learning.

Asperger's Syndrome - or those whose difficulties may be placed somewhere on the autistic spectrum may have some characteristics in common such as difficulty in understanding and appropriate behaviour in social communication and interaction. The language is likely to be affected and may be repetitive and involved with particular obsessions. It may cause difficulties with comprehension, in particular with idioms and inferences as understanding is inclined to be literal.

Attention Deficit Disorder (ADD) - carries the problems of poor attention and listening skills and impulsivity.

Attention Deficit Hyperactivity Disorder (ADHD) - Also causes impulsivity and poor attention but with the additional problem of hyperactive behaviour. Some children receive medication such as Ritalin, which can help to moderate the hyperactivity by stimulating the part of the brain that controls this behaviour.

Dyslexia - Varieties of terminology and definitions are a major source of disparate findings regarding the extent and causes of dyslexia. The British Psychological Society separates the description from causal explanations "Dyslexia is evident when accurate and fluent word reading and/or spelling develops very incompletely or with great difficulty". This focuses on literacy learning at the 'word level' and implies that the problem is severe and persistent despite appropriate learning opportunities. It provides the basis for a staged process of assessment through teaching. (Dyslexia, Literacy and Psychological Assessment, 1999)

also

"Research indicates that there are neurological differences found in many dyslexic people, which affect the left hemisphere, dealing with language, more than they affect the right hemisphere where more creative skills are based. The left hemisphere is associated with academic skills. The right hemisphere is associated with

creative skills. Most people develop a mixture of both types of skills but it is the left hemisphere skills that are essential for efficient book based learning." (British Dyslexia Association. SIGNPOSTS).

Dyspraxia - A child may have trouble with motor based problems, proprioception (awareness of their body and its location and movement planning). The perceptual and temporal awareness may affect how pupils perceive pressure (too heavy or too light), speed, time and space (this can be particularly dangerous if young people cannot judge speed of traffic or closeness of others in the gym or playground). Also has an impact on fine and gross motor skills and body position which may mean poor writing/pencil skills (see also language section).

Appendix 2

A2

Appendix 2

Specific Learning Difficulties - indicators

Infant Stage:

- *Early speech problems - difficulties in pronouncing words correctly and getting words into the right sequence. Sometimes the development of language skills has been slow, but children can be very articulate and may develop an excellent vocabulary.*
- *Early learning problems - lack of attention when spoken to - lack of interest in listening to stories and failure to understand when explanations are given.*
- Has problem with doing up buttons, zips, tying shoelaces, and with the order in which they put their clothes on.
- Is untidy and disorganised, frequently forgets or loses personal possessions.
- *Has difficulty remembering nursery rhymes and jingles.*
- Poor attention span, fluctuating concentration, varying performance from day to day.
- Has difficulty with catching a ball, hopping, skipping. Has clumsiness when moving and lack of dexterity.
- Poor sense of rhythm.
- Has poor motor control, e.g. difficulty when using scissors and holding a pencil, and keeping within guidelines when colouring pictures.
- Frequently reverses or inverts letters and/or numbers.
- Has difficulty remembering the order of days of the week, order of events of the day, sequences such as the alphabet.
- Delayed/undecided lateral dominance - alternates hand for pencil. Has trouble with deciding which hand to use when eating, drawing, playing, throwing balls, etc.
- Persisting difficulties with left to right scanning, and with telling left from right.
- *Confusion with spatial concepts and prepositions such as*

up/down, behind/ in front of.

- Lack of progress in reading, writing and spelling, contrary to expectations built up by normal development in other areas.
- *Poor awareness of individual sounds within words, rhyming patterns.*
- Does mirror writing and has difficulty in forming and writing letters. Constant confusion with b, d, p, etc.
- *Has difficulty in remembering instructions.*
- Counting may be hard work - they always need to use counters or fingers to help them.
- Difficulty in playing sequencing and matching games.
- Daydreaming and switching off in class and at home.
- Has tantrums and signs of frustration at home and school for no apparent reason. Reluctance to go to school after a happy start.

Junior Stage:

- Has difficulty dressing or tying shoelaces.
- Is untidy and disorganised, frequently forgets or loses personal possessions.
- Poor attention span, fluctuating concentration, varying performance from day to day.
- Has difficulty with catching a ball, hopping, skipping.
- Clumsiness and lack of co-ordination are still present.
- Poor sense of rhythm.
- Has difficulty with left and right - own as well as other people's
- Awkward pencil and scissor skills.
- Poor, immature handwriting.
- Very inadequate spelling in written work, with a preference for using short familiar words. More complicated words are

either spelt phonetically or by guesswork.

- Has no idea of punctuation when reading or writing a story.
- Mis-orders letters in words, omits letters or syllables.
- Has good ideas, but has difficulty organizing them and getting them down in writing.
- Essays and stories may often be brief and to the point, with very little description or development of the characters or story line.
- Unable to read, or reading age well below chronological age.
- Has particular difficulty with blending sounds into words and with recognising rhyming sound patterns.
- Some children, even those who have a good reading age, have great problems in hearing the story or the information in their minds. This means that although they read the words accurately, they do not absorb the storyline or the information, and so reading seems to be a waste of time. A slow reading rate also has the same effect.
- Misses the salient points of a story - has difficulty singling out 'crucial' from 'peripheral' information
- Copying from the blackboard is a problem. Lines are missed, letters and numbers are transposed. Some children also find the same difficulty when copying from a textbook.
- Reverses or inverts letters and/or numbers.
- Gets numbers of more than one digit the wrong way round.
- Cannot memorise, or confuses order of - days of week, months, alphabet, mathematical tables.
- *Forgets, or confuses, instructions, number sequences or lists given orally.*
- Finds it difficult to tell the time and has poor time orientation.
- Has poor sense of direction and of orientation.
- Musical notation can prove problematic, and a lack of feeling for timing can occur.

- *Some dyslexic children appear to have difficulty in understanding what is said to them and there is a time lag before they answer. They seem to have to translate the sentence into a language of their own to obtain the answer, and then translate it into ordinary English.*
- At this stage, frustration, withdrawal and behaviour problems seem to be increasing.
- Extreme reluctance to go to school may cause problems for all the family.

IF ANY LITERACY PROBLEMS HAVE ALREADY OCCURRED IN THE FAMILY, THEN SPECIAL ATTENTION SHOULD BE GIVEN TO ANY OF THE ABOVE SIGNS.

THE PARTICULAR PROBLEMS RELATING TO LITERACY DIFFICULTIES BUT WHICH ARE MORE LIKELY TO OCCUR WITH A CHILD WHO IS DEAF OR HAS A HEARING LOSS ARE IN BLUE ITALIC.

Teachers of the Deaf expect some of these hearing related problems to occur with a child with deafness. However when the usual good practice has been tried and there are other co-indications from the list above they should be given more attention.

Appendix 3

A3

Appendix 3

Areas of difficulty and strength of pupils with Specific Learning Difficulties

Difficulties	Strengths
<ul style="list-style-type: none"> • Poor short term memory (auditory and/or visual memory deficits) • Literacy problems; reading, writing and spelling (in varying degrees) • Difficulties with mathematics symbols and direction of processes • Poor sequencing skills • Difficulties in organisation, both personal and work related • Forgets verbal instructions • Poor handwriting • May have poor time management 	<ul style="list-style-type: none"> • Creative and a good visual eye • Lateral thinkers • Good imagination • Practical • Good problem solving skills • May have good spatial awareness • Can see the “bigger picture”, not compartmentalised knowledge • May be good at constructional, mechanical and technical activities that require skilful hands • Able to develop logical thinking skills

Appendix 4

A4

Appendix 4

High frequency word mat

a and at are	A a be because birthday B b brother bike bought	came can come coming called count	Dad did do down	for friend fast	F f garden give go going got	had has have he help home
if in is it	I i like look looked little	made make my me mum making	no not new nanny name	of on our out off over	O o party play played park put	ran run read road
said saw say see sister so	S s take the this there that then the	us up under use	very	we went with was walk want will	Y y you yes your yesterday	Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Appendix 4

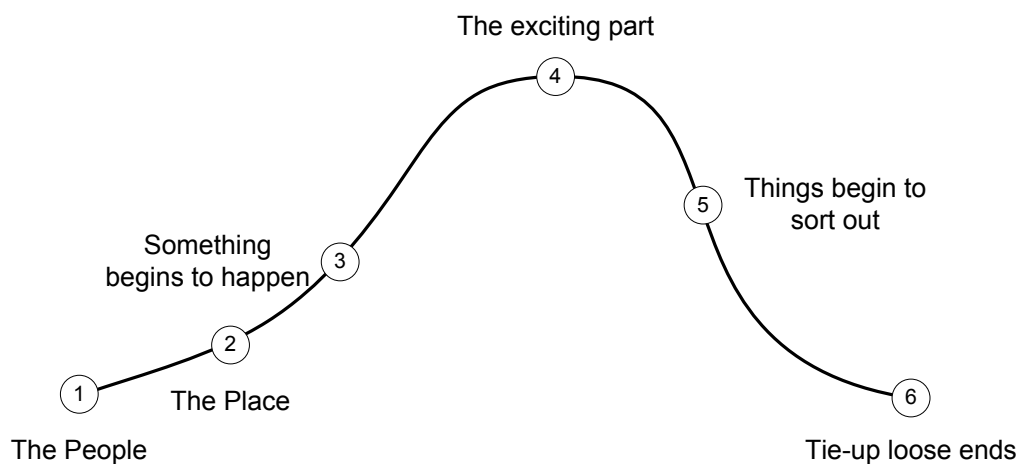
Making spelling multi-sensory - sample PowerPoint slide



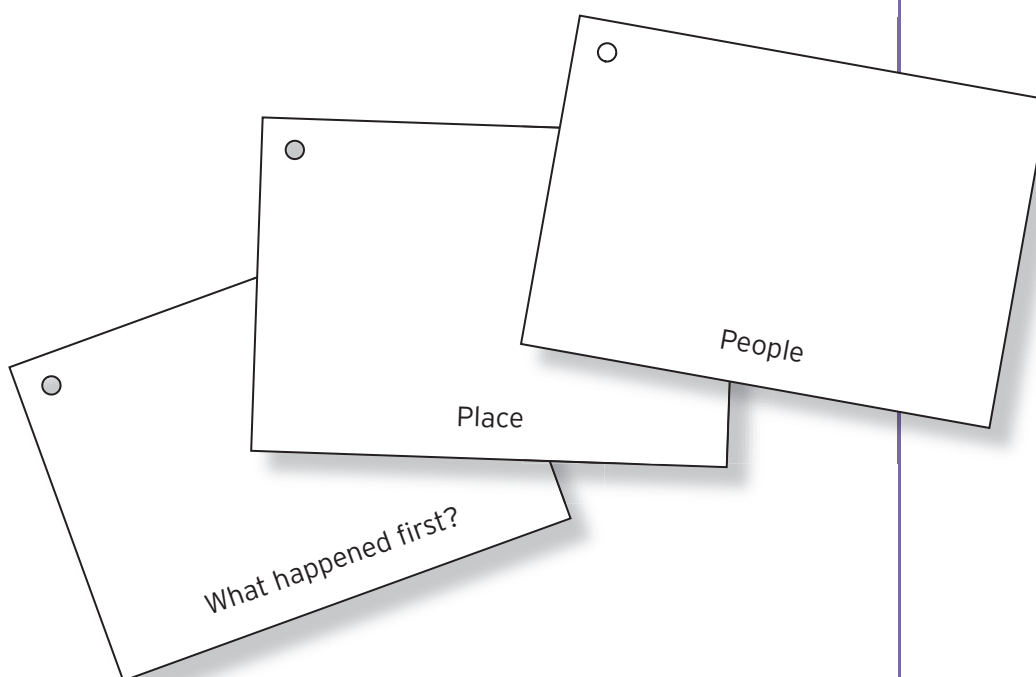
Appendix 5

A5

Story hump



This can be made into small cards - one for each stage and punched to take a treasury tag to make a pocket sized story plan reminder booklet.



Dyslexia in Practice, Ed. Janet Townend and Martin Turner

For older pupils this 'hump' style planning may be developed around headings.

Characters, settings, - exposition, complication, crisis, climax, resolution and denouement.

Storyboard - planning

Key: make it visual - draw pictures of plan

People	Place
What happened first?	Exciting part
Things begin to sort out	Finish it off

Storytime Plus

Consider HOW you can best address telling a story to help deaf children to access it:

- P** Pace - talk at a speed that ALL the children can follow and make sure that you know the story - DON'T pick an unknown story at the last minute
- L** Location - make sure that your story corner is placed so that the light is shining on the speaker's face not behind them, which will cast a shadow on their features
- U** Understanding - help ALL the children to understand the events in a story by making it VISUAL - use story sacks, models or story boards with Velcro characters and don't just rely on the pictures in the book
- S** Seating - make sure that ALL the children are seated where they can see and hear well and have the hearing impaired child close to the storyteller

This chart may be of help to non-specialist teachers and workers in pre school setting when thinking about story time with deaf children.

Appendix 6

A6

Literacy lesson sample plan

Lesson : Literacy Hour

Work to do :



Reading and talking together about a poem called The Pied Piper



cat



hat

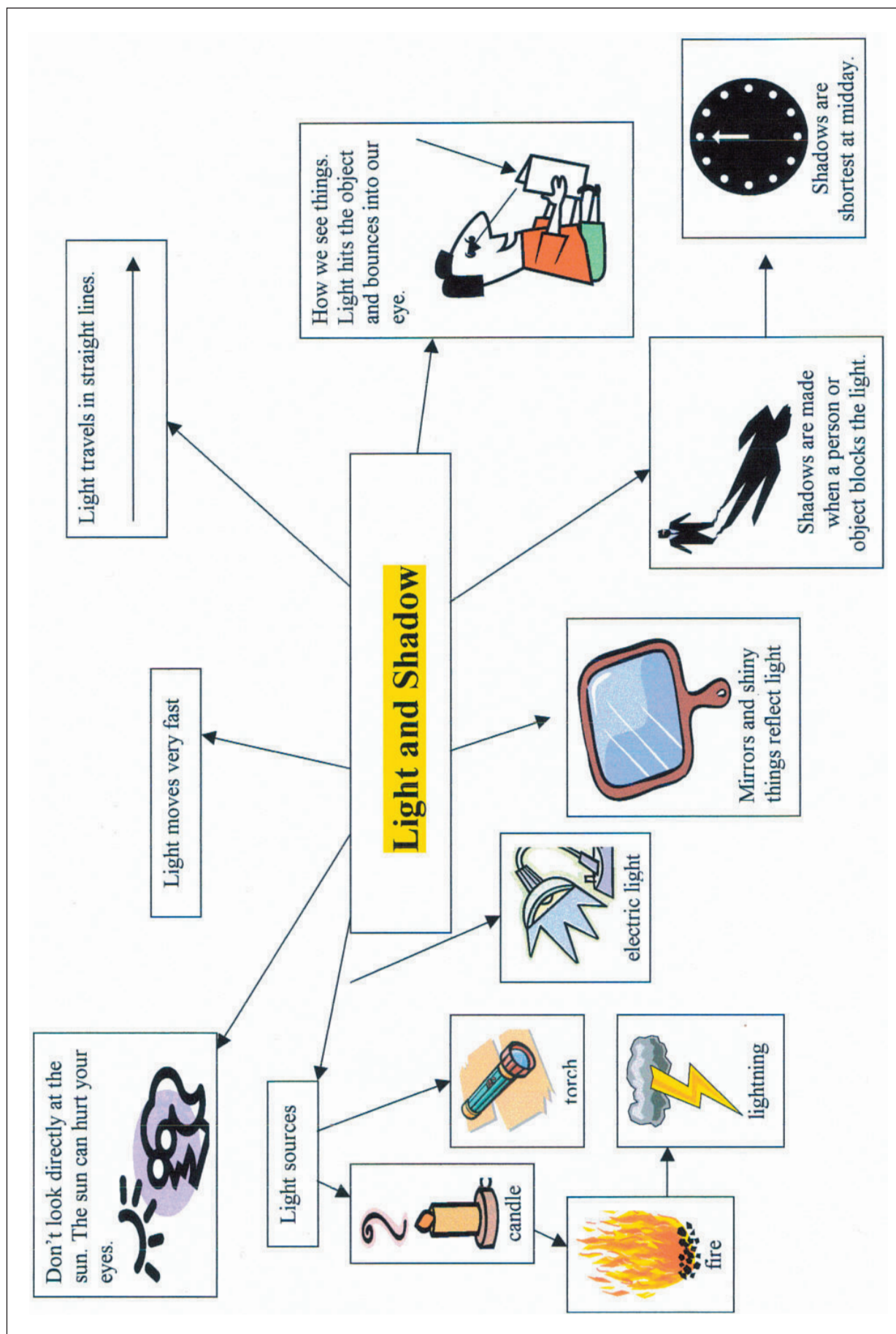
Listening and finding words which rhyme



Matching the pictures with words that rhyme.

Appendix 7

A7



References and Resources

References and Resources

Resource	Publisher	Author	ISBN	Information
Auditory Processing of "WH" Words		Jean Gilliam DeGaetano	1 886143 28 5	Practice in comprehending questions that begin with "wh" words www.unicomeducation.com
BPVS - British Picture Vocabulary Scales	NFER Nelson	Dunn, Dunn, Whetton & Burley		www.nfer-nelson.co.uk Test of receptive vocabulary
CALSC - Communication and Learning Skills Centre Mastering Memory	CALSC - Communication and Learning Skills Centre			www.calsc.co.uk website has useful materials to support work on memory and links to sections on memory strategies, mind mapping, student organisation and understanding dyslexia
Clicker	Crick Software Ltd, Northampton			www.cricksoft.com
Color Cards	Winslow Press			www.winslow-cat.com
Cued Articulation Cued Vowels	Stass Publications 1993 Stass Publications 1993	Jane Passy Jane Passy	1 874534 03 9 1 874534 04 7	www.stasspublications.co.uk Booklets introduce cued articulation (NOT cued speech) which can be used to support both the speech production of sounds by cueing the location and placement of mouth parts for each sound and also to support visual introduction of phonics when combined with phonic schemes

Developing Alert Listening Skills	Great Ideas for Teaching Inc. USA	Jean Gilliam DeGaetano	1 886143 29 3	Can be used to develop attentive listening skills
Do 2 Learn website -	www.do2learn.com Useful site for picture cards and suggestions for using them for visual timetables, charts and exchange systems. Also information on SEN.			
Dyslexia in Practice - A Guide for Teachers	Klewer Academic/Plenum Publishers 1999	Janet Townend Martin Turner	0 306 46252 4	A useful discussion of dyslexia also containing practical ideas. May be out of print
Dyslexia, Literacy and Psychological Assessment	The British Psychological Society 1999	The British Psychological Society 1999	1 85433 310 0	www.harcourt-uk.com
Early Start	1995	Barbara Mitchelhill		www.opengroup.com
ERR - Early Reading Research	www.icteachers.co.uk/			
Facilitating Word Recall	Great Ideas for Teaching Inc. USA 1995	Jean Gilliam DeGaetano	1 886143 30 7	To assist children in recalling vocabulary in response to questions and statements
Inspiration	Don Johnson Special Needs			www.donjohnston.co.uk
Jolly Phonics	Jolly Learning, Essex			www.jollylearning.co.uk
Kidspiration	Don Johnson Special Needs			Useful program for mind mapping older version
Kidspiration 2	Don Johnson Special Needs			Visual learning supports emerging readers and writers

Kidspiration 7	Don Johnson Special Needs			Useful programs for mind mapping - “Visual learning tool that helps children to organise their thinking”
Leap Into Listening	Super Duper Publications, Greenville 1999	Thomas Webber	1 800 277 8737	A range of pictorial scenes with activities to increase a child's auditory memory
Listening and Processing Auditory Directions	Great Ideas for Teaching Inc, USA	Jean Gilliam DeGaetano	1 886143 27 7	To develop comprehension of directions, of particular interest to children who are interested in dinosaurs
Listening and Remembering Specific Details	Great Ideas for Teaching Inc, USA	Jean Gilliam DeGaetano	1 886143 37 4	Listen to short stories, to retain the important details and be able to accurately answer questions about the story
Looking & Thinking	Wolverhampton: Learning Materials 1999	Arthur J Evans		
Mapwise	Network Educational Press	Oliver Caviglioli Ian Harris	1 85539 059 0	www.networkpress.co.uk Detailed and readable guide to model mapping and use of visible thinking strategies to accelerate learning.
Mastering Auditory Sequencing	Great Ideas for Teaching Inc, USA	Jean Gilliam DeGaetano	1 886143 19 6	Helps children comprehend time concepts and visual clues are provided
Memory and Learning	David Fulton Publishers, London 2003	Jacqueline Bristow Philip Cowley Bob Daines	9 781853 465949	A Practical Guide for Teachers. A reference book that gives background information as well as practical ideas and strategies
Mind Genius				Concept mapping www.mindtools.com
Oxford Reading Tree	Oxford University Press	Roderick Hunt		www.oup.co.uk/oxed/primary
PECS (Picture Exchange Systems)	Brighton, Pyramid Educational Consultants			www.pecs.com

Phonics Handbook	Jolly Learning	Sue Lloyd	1 870946 07 3	www.jollylearning.co.uk
PIVATS - Performance Indicators for Value-Added Target Setting		Lancashire County Council		www.lancashire.gov.uk/education/advisory
Promoting Alternative Thinking Strategies (PATHS)	University of Washington, Seattle	Mark Greenberg		The scheme is designed to 'empower and enable deaf children to express themselves and how they feel'. It is also designed to help children to develop skills in interpersonal problem solving
Reaching out to all learners	Network Educational Press Ltd 2001		1 855539 1430	
Rhyme Time	Edinburgh, Langlearn Comm 96	Elizabeth Dean Janet Howell		Developing rhyme awareness
Sequence Plus		Marilyn M. Toomey	0 923573 15 1	A collection of picture sequences with vocabulary lists. Graded sequences containing 3 - 8 pictures
SNAP Dragon	Oxford University Press			www.oup.co.uk/oxed/primary

Sound Linkage - An Integrated Programme for Overcoming Reading Difficulties	Peter Hatcher	The book covers: Test of phonological awareness Identification of words as units within sentences Identification and manipulation of syllables Phoneme blending Identification and supply of rhyming words Identification and discrimination of phonemes Phoneme segmentation, deletion, substitution and transposition Making links between sounds and the written form of the word
Speech and Language Difficulties in the Classroom	David Fulton Publishers 1996 Deidre Martin Carol Miller	1 85346 302 7 www.fultonpublishers.co.uk
Spotlights		Language used to describe different groups www.splcenter.org
SULP - Social Use of Language Programme	NFER Nelson Wendy Rinaldi	4095026 www.nfer-nelson.co.uk
Talkabout/Talkabout Activities	Speechmark	www.speechmark.net Telford Road, Bicester, Oxon, OX2 4LQ. Tel: 01869 244 733 Their catalogue also has card sets on Odd one out, What's inside, Emotions, Verbs and many more.
The Left Handers handbook	Diane G Paul	1 869981 59 6 Resource for anyone responsible for left handed children - lots of useful suggestions
Wellington Square	MacMillan Education	www.macmillaneducation.com

Wellington Square - books and folders plus CD ROMs etc	SEMERC	Phonic scheme with older interest level, also contains phonic worksheets etc in folder
What are you feeling?	National Deaf Children's Society	www.ndcs.org.uk A guide to teaching emotional literacy in the classroom
Writing with symbols 2000	Widgit Software	www.widgit.com An open-ended word and symbol processor that automatically illustrates words as you type. The program is supplied with two sets of graphic images (coloured PCS symbols from Mayer-Johnson and Widgit Rebus Symbols