



Sensory Difficulties, Visual & Auditory



Department of
Education

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Visual Impairment

Introduction

Most pupils described as having visual impairment are partially sighted and can function in school with the assistance of low-vision aids. Those with deteriorating minimal residual vision or who are totally blind may need to read and write through the medium of Braille.

This is general guidance, every child with a visual impairment has unique needs and the teacher should always contact a Qualified Teacher of the Visually Impaired who will provide tailored advice to meet the pupil's individual needs arising from their visual impairment.

Notes for Teachers in Mainstream Schools

These notes are intended to explain some basic facts about Visual Impairments (VI) and to indicate ways in which teachers may improve the help they give to pupils with a VI. The Advisory Teacher should be approached for more detailed advice and for information on sources of equipment.

All tasks involving reading and writing may take considerably longer for a pupil with a VI. Fatigue may reduce working efficiency over a long stretch of reading or writing.

Pupils with a Visual Impairment may:

- miss out on incidental learning;
- miss out on facial expressions and social cues;
- experience difficulty distinguishing fine detail;
- tire easily; and

- experience difficulty moving around environment.

To assist a pupil with Visual Impairment:

- use an appropriate font size and style;
- present resources on A4 paper;
- address pupil by name;
- ensure correct seating position;
- provide high contrasting resources;
- carefully control lighting; and
- allow extra time to complete reading and writing tasks.

Vision

- There is a wide range of eye conditions and within each eye condition there will be many individual differences.
- Pupils with a VI should be encouraged to make use of any remaining residual vision.
- Many pupils with a VI are assisted by using some form of magnification. Low Vision Devices (LVDs) may include spectacles, handheld telescopes, binoculars, magnifiers and closed circuit televisions (CCTV).

Making the Most of Vision

Lighting

- Good lighting is essential, either the provision of a good even light throughout the room or placing the pupils with a VI in a suitable position.
- Some pupils may need their own adjustable desk lamp to provide a light source.
- Avoid glare, position the pupil away from direct sunlight.

Viewing position

- Some pupils with a VI may need to hold material close to the eyes and should be allowed to do so.
- Viewing materials from an angle may benefit some pupils.
- A sloping reading stand, adjustable drawing board or typewriter copyholder may be useful.
- Encourage the pupil to make use of any LVDs provided

Enlargement

- Large print books are available from a number of suppliers.
- Subject to copyright approval print materials may be enlarged.
- Care must be taken not to over-enlarge material as this may add to the pupils' difficulties.

- Enlarged diagrams may be confusing, redrawing in a simplified form may be more beneficial.

Clarity and contrast

- Remember print density is as important as size.
- Good quality black felt-tip or roller-ball pens are best.
- Do not use glossy paper.
- Text overlaid on pictures may need to be retyped.
- Try to place articles used by pupils with a VI on a contrasting surface.

Classroom Management

- Allow the pupil to adopt the position which allows the most efficient use of residual vision.
- Provide clearly lined, good quality paper.
- Encourage the pupil to write clearly and neatly.
- Printed letters are preferable to cursive script.
- Seat the pupils with a VI at the front of the class and allow them to walk up to the board to check information.
- Avoid glare across the board.
- Write using a clear print and leave adequate spacing.
- Read aloud what is written on the board and describe diagrams etc.

- Ensure boards maintain maximum contrast.
- If at all possible provide an individual copy of the information given on the board.
- Keep the pupil with a VI close at hand to provide individual attention.
- Provide individual notes, diagrams and equipment if possible.

Classroom Environment

- Keep rooms free of clutter.
- Make sure corridors and stairways are adequately lit.
- Changes of level may need to be highlighted.
- Try to position wall displays at an appropriate height.
- Address the pupil with a VI by name rather than pointing.
- At all times give verbal descriptions of activities going on in the room.

Classroom support

- Some pupils with a VI are provided with a classroom assistant.
- The assistant may be used to modify material and in situations where vision is essential for safety.
- Where possible this assistance should be indirect, care should be taken not to do all the work for the pupil, in order to promote independence.
- Planning, decision and where possible practical tasks should be undertaken by the pupil.

Examinations

- Joint Council for Qualifications (JCQ) guidelines should be consulted for access arrangements, reasonable adjustments and special consideration, <http://www.jcq.org.uk>
- It should be the aim of everyone involved in the examination process to ensure that the pupil with a VI may demonstrate his/her level of ability without disadvantage.
- Care should be taken that examinations papers are suitably adapted: enlarged print, clear diagrams, written descriptions of primary source materials, etc.
- An additional time allowance may be required in many subjects to compensate for a slower reading speed.
- If possible, examinations should be taken without the intervention of a third party but if the use of a reader/amanuensis becomes necessary, careful thought should be given as to whom is a suitable person.
- Make sure that all examination and assessment bodies are notified well in advance to ensure any adaptations requested are provided.

Sensory Support Services

The Outreach Service for the Visually Impaired at
Jordanstown School, Jordanstown Schools.

Mrs M Shannon

Tel: 028 90863541

Regional Visual Impairment Resources Base,
The Fortwilliam Centre, Belfast

Tel: 028 90564000

BELB

Peripatetic Support Service

Head of Service - Valerie Haugh

Tel: 028 90491058

NEELB

Teresa Degnan - Head of Audiology Service

Tel: 028 25662446

SEELB

The Sensory Impaired Service

Head of Service - Mrs Wendy Martin

Tel: 028 90491583

SELB

The Sensory Support Service.

This Service is led by Mary Shalley

Tel: 028 37512450

WELB

The 'Sensory Support Service -

Hearing Impairment/Vision Impairment' as appropriate

The Service is led by Carmel McCarron

Tel: 028 82246203

The officer with overall responsibility for the Service,
is Margaret Mullan

Tel: 028 82411305

Further Reading and Resources

Grogan, M. (2007) Partners in Education: A Handbook on Disability Awareness and Inclusive Practices for Students with Disabilities (2nd edn), Offaly: Offaly Centre for Independent Living. Available from Michael Nestor, Offaly CIL. email oiel@eircom.net

Joint Council for Qualifications (JCQ): Access Arrangements, Reasonable Adjustments and Special Consideration General and Vocational Qualifications, 2009. <http://www.jcq.org.uk>

National Blind Children's Society website: <http://www.nbcs.org.uk>

NCBI National Council for the Blind of Ireland, website: <http://www.ncbi.ie/>

Royal National Institute of Blind People, website: <http://www.rnib.org.uk/>



Support Guidelines for the classroom assistant providing support for pupils with a visual impairment

INTRODUCTION

The use of a classroom assistant to adapt and modify material and to provide assistance during lessons will be beneficial for those pupils with significant visual impairment.

A pupil who cannot see fully may not learn those things that fully sighted pupils pick up incidentally and may need more practice and support to master new skills and understand new concepts.

The pupil may need individual demonstration in tasks such as cutting out, letter formation, self help and organisational skills.

The pupil may need the opportunity to look at and discuss items to be used in lessons beforehand.

They may need assistance in using equipment and resources effectively.

Support on an individual basis should not be offered automatically but only as necessary. It may create over-dependence and prevent the pupil from working with their peers.

EFFECTIVE SUPPORT

Encourage the pupil to:

- attend to the class teacher – careful listening is important to compensate for reduced visual intake;

- interact with the class teacher and their peers - allow them to be part of the class as much as possible;
- work unaided; and
- think, act and take responsibility for his or her own decisions and actions.

DIRECT SUPPORT

The pupil with V.I. will receive restricted information. It is easy for them to lose the thread of the lesson. It is not always possible to talk them through things. A "chalk and talk" session by the teacher is a good example of direct support.

Be pro-active and try to familiarise them with the content of the lesson beforehand. We all function better when we can anticipate what is expected of us.

- It may be necessary to follow up and reinforce what the class teacher has been saying or demonstrating.
- Do not work for the pupil, over-correct or rewrite work out.
- In some situations it may be necessary for you to write material from the board. This should be done with the understanding that on most occasions the pupil then studies it and transfers it to their workbooks later themselves.
- Do not expect the pupil to copy everything from the board. It is sometimes more appropriate to present the work on paper and go through it with them to ensure full understanding.
- In some situations it is best to sit away from the board where you can reinforce the work discreetly. Increased verbal input will help compensate for limited visual information.

Hearing Impairment

Introduction

Deafness has a major effect on a child's ability to learn to communicate, read and write. A teacher's ability to communicate successfully with the deaf child in the classroom is crucial in minimising or reducing the barrier to learning. The majority of deaf children in the UK are educated in mainstream schools alongside their hearing peers, and some are often the only deaf child in their class, or even the whole school.

The majority of students with hearing loss in mainstream schools will have mild to moderate hearing loss and use oral/aural methods as their main mode of communication. However, an increasing number of students with severe to profound loss are now entering mainstream education and some of these students choose to use sign language as their preferred mode of communication.

Indicators of a hearing loss may include difficulties pronouncing some words or speech sounds, failure to pay attention when spoken to, frequent observation of peers for a lead as to what to do, giving incorrect answers to simple questions, a high frequency in asking for repetition of words and sentences, intense face and/or lip watching, mispronunciation of some words/sounds, straining to watch a speaker, a tendency to speak loudly and to have difficulty monitoring voice level, and withdrawal.

Mildly Hard of Hearing: the student hears nearly all speech but may hear incorrectly if not looking at the speaker or if there is background noise. It can be very difficult to identify this condition. Students may have difficulties responding to conversational speech especially with background noise.

Moderately Hard of Hearing: the student will experience difficulty hearing others speaking who are close by. The student may subconsciously augment his/her understanding with lip-reading and visual cues. It is difficult to identify the

student's hearing loss from his/her speaking voice, but on close examination the student misses word endings and omits definite and indefinite articles.

Severely Hard of Hearing: the student requires a hearing aid and needs to use lip-reading and body language to augment understanding. The student's speaking voice is characterised by shortened sentences.

Profoundly Deaf: the student may use a hearing aid but relies on visual cues and/or sign language to communicate. The student's speaking voice may seem incomprehensible but some students can achieve good oral skills. Radio aids may be used to transmit the speaker's voice to the listener.

The greatest difficulties faced by deaf students are in relation to language and communication. The acquisition of language and the development of a communication system are central to all aspects of learning and teaching for these students. The communication approach used by students is based on the student's own communication needs and parental preference.

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The following guide has been developed for school staff and is recommended for planning and ensuring good practice for working with children and young people with a hearing impairment.

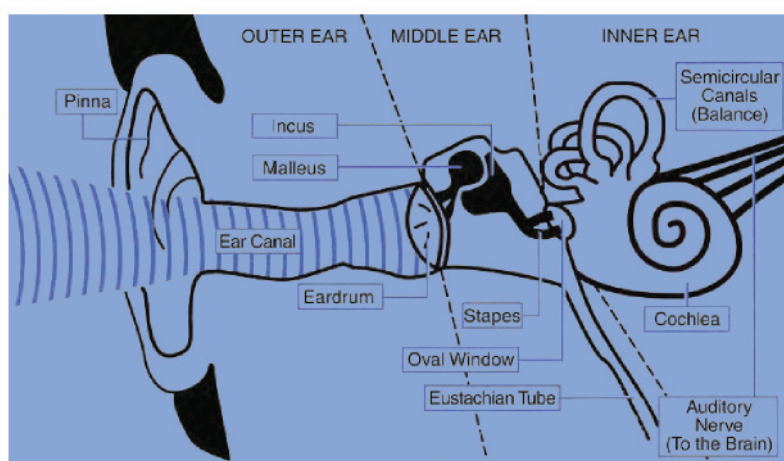
'The Deaf Friendly Schools: A Guide for Principals, Staff and Governors' was written by the National Deaf Children's Society and is available on the Department of Education website.

www.deni.gov.uk/deaf_friendly_schools_guide.pdf

An Overview of Hearing Impairment

How do we hear?

- outer ear
- middle ear
- inner ear



- conductive loss
- sensorineural loss
- mixed loss
- sensory loss
- neural loss

Conductive Hearing Loss

Congenital

- various inherited syndromes
- cystic fibrosis
- cleft palate

Acquired

- glue ear
- infections
- trauma
- hardened wax
- foreign bodies

Sensorineural Hearing Loss

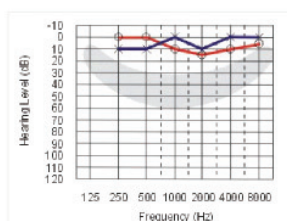
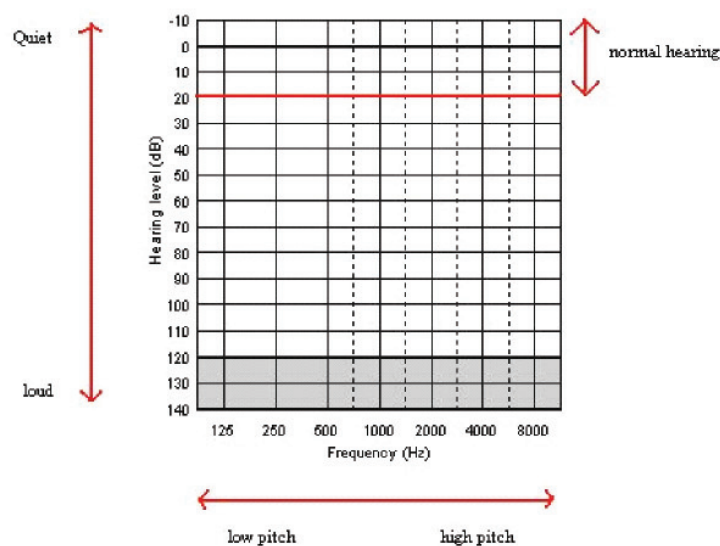
Congenital

- various inherited syndromes
- maternal rubella
- premature/difficult birth
- rhesus incompatibility
- asphyxia

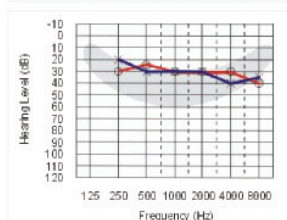
Acquired

- meningitis
- trauma
- viral infections
- ototoxic drugs

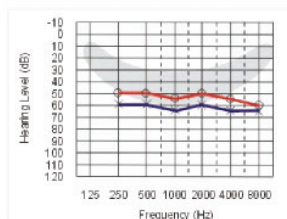
A Blank Audiogram



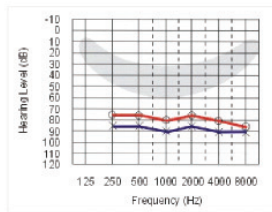
This audiogram shows 'normal' hearing.
Sounds below the lines on the audiogram can be heard.
X shows the left ear.
O shows the right ear.
All the X and O are above the 20 line.



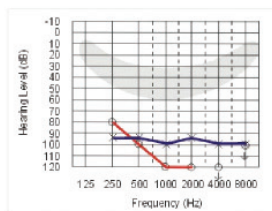
This audiogram shows a 'mild' hearing loss.
All the X and O are between the 21 and 40 lines.
Some difficulty with quiet speech.



This audiogram shows a 'moderate' hearing loss.
Frequent difficulty with normal speech
Loud sounds can be heard
All the X and O are between 41 and 70.



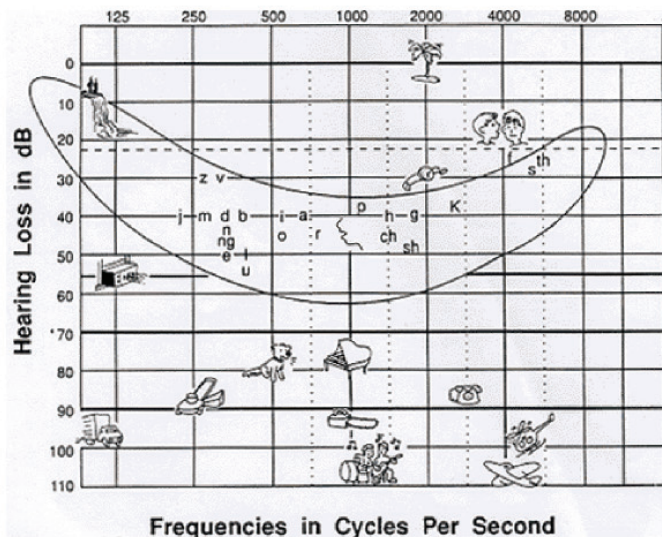
This audiogram shows a 'severe' hearing loss.
Conversational speech cannot be heard.
Shouting and loud noise (like traffic) can be heard.
All the X and O are between 71 and 95.



This audiogram shows a 'profound' hearing loss. Speech cannot be heard. Very loud noises like pneumatic drills and planes taking off can be heard (or felt). The X and O are mostly below the 95 line.

To work out the level of hearing loss:
Add the Hearing Level (dB) for 250, 500, 1000,
2000 and 4000Hz in the better ear.
Divide by 5.
If there was no response use 120dB.

Impact of Hearing Loss on Speech Perception



The following passages illustrate the impact of hearing loss on speech perception.

_ a _ _ a _ _ _ i _ _
_ e _ _ u _ _ _ e _ i _ _
_ o _ e _ _ _ a _ a i _
o _ _ a _ e _

J _ c k _ n d J _ l l
w _ n t _ p t h _ h _ l l
t _ f _ t c h _ p _ _ l
_ f w _ t _ r

Jack and Jill
went up the hill
to fetch a pail
of water

Hearing Aid →



← FM System

Cochlear Implant →



FM Systems

What is an FM System?

Why use an FM System?

When should you use an FM System?

How should you use an FM System?

Why use an FM System?

An FM system will overcome the detrimental effects of the three main enemies of the hearing aid user: -

1.Distance

2.Background Noise

3.Reverberation

<u>Source</u>	<u>60dBSPL</u>
1 foot away	54dBSPL
2 feet away	48dBSPL
4 feet away	42dBSPL

**As the distance from the source doubles
the SPL falls by 6dB**

**Why is background noise in the classroom so
devastating for the hearing impaired?**

<u>speech level</u>	<u>background noise level</u>	<u>s/n</u>
65dB	45dB	+20dB
50dB	55dB	-5dB

preferable s/n is between +20dB and +25dB

Noise Sources to minimise

- Scraping chair and table legs
- Clattering pens and pencils
- Computers, printers and overhead projectors
- Heaters
- Food blenders
- Workshop machinery/Sewing machines
- Grass-cutting
- Pneumatic drilling



When/How should you use an FM System?

An FM system is an example of technology which can greatly improve listening conditions for a hearing impaired pupil, however if it is not used correctly it cannot provide the expected benefits. Because the FM system is **dominant**, it must be used with discretion, switched on and off appropriately and NOT left constantly on.



Daily Looking and Listening Checks



Greatest impact of deafness is language development

- deaf child doesn't hear conversations around him
- doesn't hear enough to make sense of what is said
- misunderstands what has been said or written
- thinks he has understood but doesn't realise he has missed important information

- note-taking support
- additional explanation of subject matter
 - before the lesson
 - during the lesson
- additional follow-up work
- differentiated materials

- **attention**
- **repeat**
- **rephrase**
- **use open-ended questions**
- **use drama for concepts**
- **never talk to the whiteboard!!**
- **facial expressions**
- **body language**

- DVDs
- Videos
- TV programmes
- ICT
- look at object/picture – give information

Tips for teaching a hearing-impaired pupil in a mainstream classroom.

- seating
- your face/other pupils' faces
- your mouth
- light
- window
- exaggerated lip patterns

- pupil's disability
- clue
- taking notes
- comprehension/spelling/similar sounds
- concentration
- progress

- inclusive attitude to deaf child
- good role model
- explain things clearly
- appropriate expectations
- appropriate resources
- questioning

- good social interaction encouraged
- visits outside school

FM system

safety of child

- visitors in the classroom
made aware of potential difficulties

Deafness is not defined as a
special **e**ducational **n**eed but

a child may need special educational
provision because of the needs which arise
from his hearing impairment

- eg:
- speech and language therapy
 - specialist equipment
 - teacher of the deaf support
 - classroom assistant/LSA

The Role of a Classroom Assistant

- pre tutor
- post tutor
- one-to-one support
- plan with teacher
- prepare modified language resources
- observe
- contribute to targets set
- act as a note -taker
- check equipment
- SLT exercises

You are not alone!!!!!!

- Teacher of the Deaf
- SENCO
- colleagues
- child's parents



Sensory Support Services

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at Jordanstown Schools

Tel: 028 90863541

BELB

Peripatetic Support Service

Head of Service - Valerie Haugh

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NEELB Sensory Learning Support (SLS)

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The officer with overall responsibility for the Service, is
Margaret Mullan.

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Additional References and Resources

Alexander Graham Bell Association for the Deaf and Hard of Hearing, website:

<http://www.agbell.org/DesktopDefault.aspx>

British Association of Teachers of the Deaf (BATOD), website:

<http://www.batod.org.uk/>

British Deaf Association (BDA), website:

<http://www.britishdeafassociation.org.uk/>

Centre for Deaf Studies and Irish Deaf Online Directory, website:

<http://www.irishdeaf.com/>

The Deaf Friendly Schools: A Guide for Principals, Staff and Governors written by the National Deaf Children's Society, website:

www.deni.gov.uk/deaf_friendly_schools_guide.pdf

Deaf Hear (formerly the National Association for Deaf People), website:

<http://deafhear.ie/>

DELTA is a national charity supporting deaf children, their families and practitioners. Website: www.deafeducation.org.uk/

Ear Foundation: UK charity to support and to provide activities, courses and resources for deaf children, young people and adults with cochlear implants, their families and supporting professionals, website:

<http://www.earfoundation.org.uk/>

Forest Bookshop: information on books, DVDs, CD ROMs and software about sign language and Deaf issues, website:

<http://www.forestbooks.com/pages/>

Grogan, M. (2007) Partners in Education: A Handbook on Disability Awareness and Inclusive

Irish Deaf Society (IDS), website: <http://www.irishdeafsociety.ie/>

NDCS: the national charity dedicated to creating a world without barriers for deaf children and young people. website: www.ndcs.org.uk/

Jordanstown Schools: a school for children and young people with auditory and visual impairments; school profile and facilities with information about specialist support, events and photos. website: www.jordanstownschoools.co.uk

National Deaf Children's Society (2001) Deaf Friendly Schools: A Guide for Teachers and Governors in England and Wales, London: The National Deaf Children's Society.

Royal National Institute for the Deaf (RNID), the charity represents the 9 million deaf and hard of hearing people in the UK. website: <http://www.rnid.org.uk/>

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