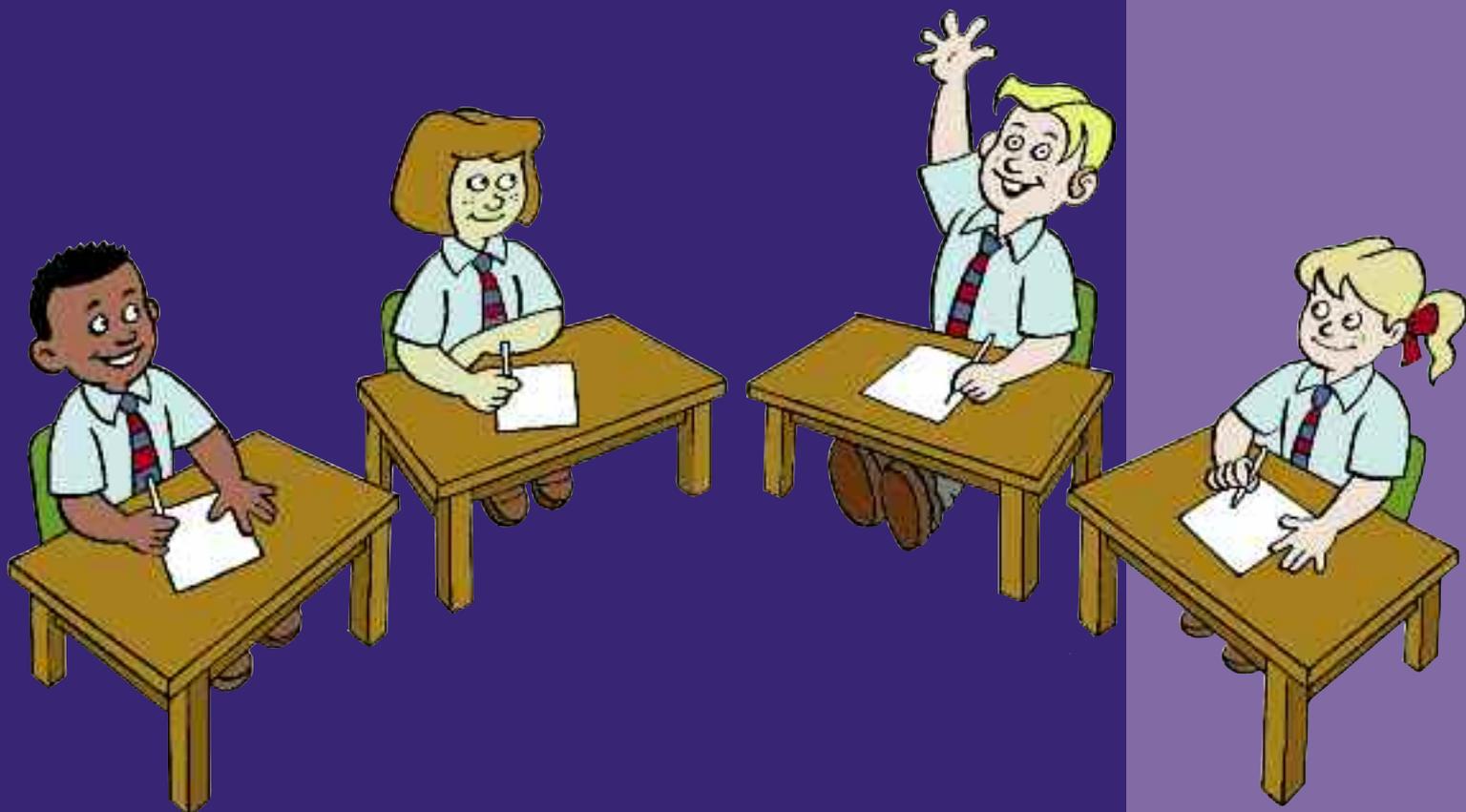


Deaf Friendly Schools



A guide for teachers

Our vision is of a
world without barriers
for every deaf child.

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NDCS would like to thank all of the schools that took part in this project.

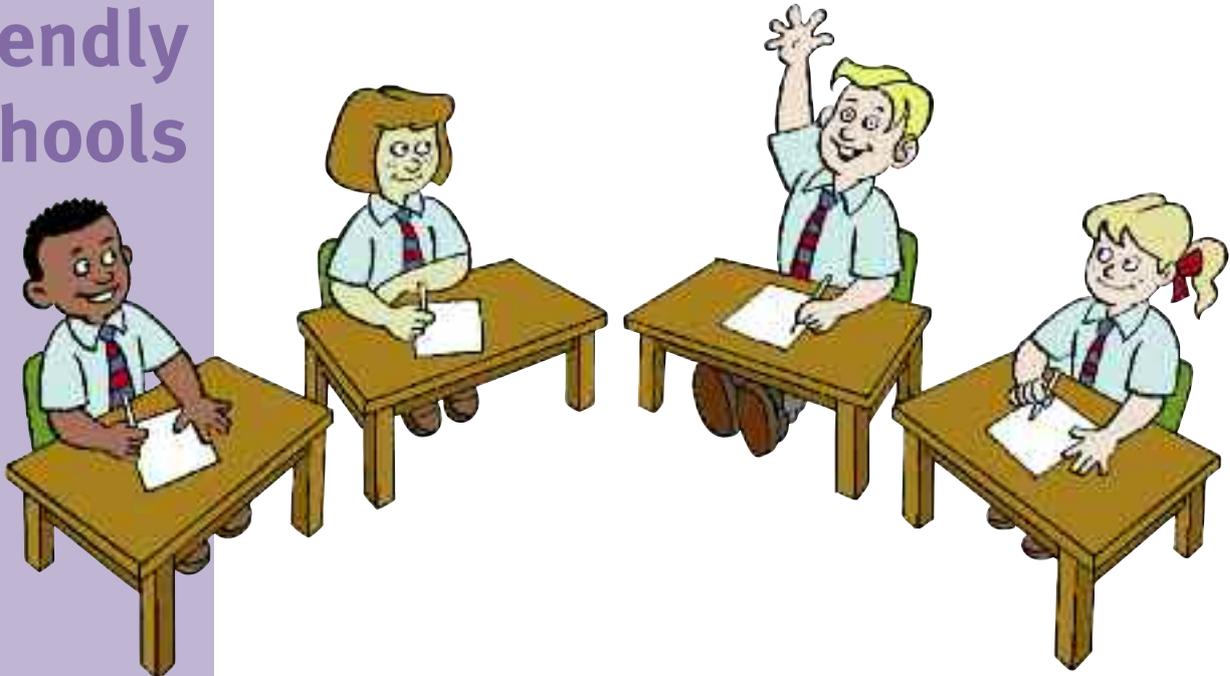
Written by Clara Ratcliffe, NDCS 2001. Reprinted 2004. Updated 2010.

This booklet was developed in partnership with schools in England as part of a grant from the Department for Education and Skills Special Educational Needs Small Programmes Fund. The principles and practices that are discussed in this booklet can also be applied by teachers who work with deaf children throughout the UK.

Note: The word 'deaf' refers to all levels of hearing loss.

Section 1

Introduction



Is there a deaf child in your school?

By deaf we mean anyone with permanent or temporary deafness and this could be a mild, moderate, severe or profound level of deafness. The majority of deaf children are being educated in mainstream schools and many of them will require special educational support because of their deafness. In addition, it is estimated that many more children, particularly at pre-school and primary school age, will experience temporary deafness caused by a condition known as glue ear.

Deafness itself is not defined as a special educational need. However, there are needs arising from deafness, whether it is temporary or permanent, which may require special educational provision. For example, a young child's language and communication development can often be affected by their deafness. They may need extra provision in the form of regular speech and language therapy; support from a specialist teacher of the deaf; specialist equipment such as a radio aid system; or sign language support.

You need to think about the deaf child's needs in the classroom, making sure that they are being included and following what is happening.

It is also important to check with the deaf child what is most comfortable for them. Try to be flexible in your teaching and use a range of techniques and methods. Be aware of background noise as this can affect the deaf child's access to the lesson.

This booklet's aim is to stimulate and encourage staff to adopt positive attitudes towards deafness.

We hope that this booklet will help you, and that not only will you read and find the information useful, but that you will also explore ways in which the quality of deaf awareness can be raised within your school. Should you wish to explore any issues raised in this booklet further, contact the National Deaf Children's Society for further information.

A deaf friendly school

It is very important that there is a 'whole school' approach to the education of deaf children. This means that all members of staff throughout the school (and not just those who tend to work with a deaf child all of the time) are aware of deaf children's needs. For many deaf children in mainstream schools, positive contact and friendships may be limited to their teaching assistant or the teacher of the deaf and perhaps a few classmates with whom a deaf child can easily communicate. It is essential that there is a solid commitment within the school to make sure that a deaf child has equal opportunity to participate in every aspect of school life.

To be a deaf friendly school, there needs to be a positive attitude towards deafness and deaf issues. This can be achieved by making sure that the governors and senior managers are firmly committed to supporting deaf pupils across the whole curriculum.

All staff working in primary and secondary schools should be aware of how to identify the signs of deafness in a child; to understand the educational, social and developmental implications of deafness; and to know how to support deaf children effectively and positively.

Many deaf children will have a Statement of Special Educational Needs or Co-ordinated Support Plan (CSP) and/or an Individual Education Plan (IEP). These should contain clear information and objectives as to the key areas a deaf child needs to develop along with the additional support they need to help them reach their goals. Should you need further information about how to teach a deaf child, then the teacher of the deaf and/or the special educational needs co-ordinator (SENCO) should be able to offer you guidance. You could also contact the NDCS Freephone Helpline on 0808 800 8880 for a copy of *Deaf Friendly Teaching*.

There are various issues to consider when a deaf child attends a school: the social and emotional development of deaf children; the environment; teaching methods; technical support and language and communication support. The teacher of the deaf or the local support service (sometimes known as the Hearing Impaired Service or Sensory Support Service) will be able to give you further information and advice.

"I really enjoyed this session, we all gave time to discuss problems and successes in class and came to realise the problems are not with the deaf children but with communication, and improvements will benefit lots of children."

Teacher after attending a deaf awareness session.

"It was really useful having a deaf awareness session, I feel more confident that I can cope with a deaf child in my class."

Mainstream class teacher.

“Sometimes I nod my head even if I don’t understand”
Sharon, aged 13.

“Although I can lipread quite well, it can be stressful to lipread for a long time”
Shazza, aged 16.

Inclusive teaching tips

In order to meet the needs of deaf children you may need to make specific adaptations to the way you prepare and deliver your lessons. Changing the way something is taught can make the difference to a deaf child being involved in a lesson or excluded.

The following is just a sample of what could be done to support all children, as well as a deaf child, in the classroom.

General advice

The following are some examples of good teaching practice when working with deaf children:

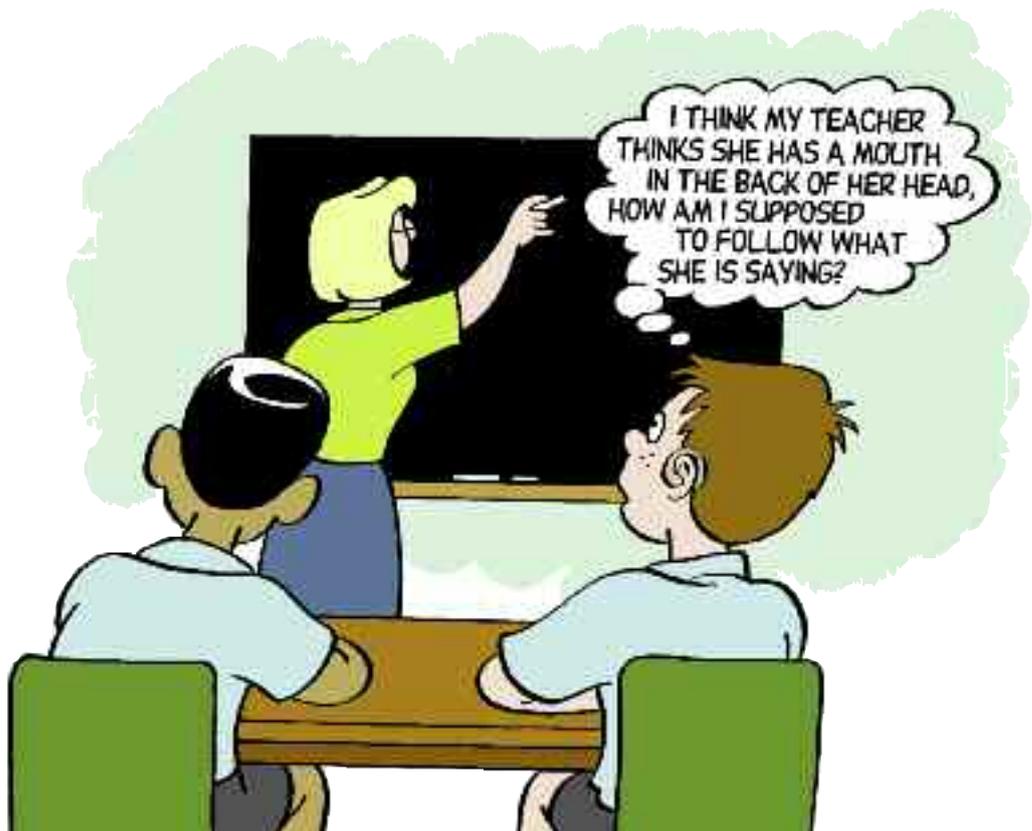
- make sure that you have their attention before starting to talk, otherwise they may not get the first part of the conversation or instructions
- speak clearly, naturally and at a normal rate – bear in mind that if you shout, this will distort lip patterns and can also give the impression from your facial expression that you are angry with them
- face them when you are talking to them and allow some space between you and the child for signing or lipreading purposes, ideally keep a distance of between 1 and 2 metres



- remember that lipreading involves a lot of guesswork because different words often have similar lip patterns
- try not to cover your face with your hands or objects or walk around while you are speaking, as again it will make it difficult for a child to read facial expressions or lipread
- it is helpful if a teacher repeats what the other pupils say, especially those who are sitting at a distance from a deaf pupil as they may not hear the comments, questions or answers
- avoid having your back to a window as this creates a shadow and makes it difficult for a deaf child to read facial expressions or lipread



- encourage the other children to speak one at a time and to raise their hand before speaking so that a deaf child is aware of who is talking
- having a deaf child in the class can mean extra clarification and reinforcement for all children and that has to be a good thing
- if a deaf child does not use sign language it is still helpful to use hands and facial expressions to gesture and support what you are saying
- use whole sentences and not single words – if a child does not understand a word, use a different word with the same meaning
- allow pupils time to read or look at visual aids and/or instructions before talking
- let them know when there is a new topic of conversation



- do not talk at the same time as writing on the board
- encourage all children to say when they do not understand something as very often a deaf child will nod and smile when in fact they do not understand
- parents should be encouraged to reinforce school work at home via DVDs, text and discussion with their child
- when planning a lesson it is vital that time is taken to brief support staff on subject matter, including the key points or new concepts to be covered, as well as the vocabulary to be used
- get to know how they communicate most effectively and ask what is useful and what is not helpful
- try not to presume that a deaf child has certain general knowledge but check their understanding first
- bear in mind that some deaf children may not have complete auditory access to what is happening around them
- make sure not to partner the child with the same hearing peer continually, as you do not want the child to become too dependent

Remember that no two deaf children are the same.

Language and communication support

The development of language and communication are the main areas that are affected by deafness. Although a deaf child's language may be delayed, this is not necessarily a reflection of the child's ability or potential. Having appropriate expectations and an understanding of how to support a deaf child in your class will help them to realise their true potential.

Hearing children usually pick up language naturally by listening and responding to family and friends. A deaf child will have greater difficulty in noticing or distinguishing between the wide range of sounds around them. This can restrict a deaf child's ability to develop their thought processing skills, as well as their use and understanding of English. This can make it difficult for a deaf child to fully access the curriculum.

A deaf child's access to English, the curriculum and school life can be made easier. For example, one child may communicate using British or Irish Sign Language (BSL or ISL), while another could be using spoken English as their first language. This means that all school staff should receive training in deaf awareness, as well as having a minimum level of communication skills. Deaf children have a right to communicate in the most appropriate way for them, and staff should be prepared to adapt to this.



"I taught my hearing friend Lorna to sign. Now we're best friends"
Charlotte, aged 8.

"I like to talk to my friends about football"
Oliver, aged 11.

Deaf pupils may receive any of the following communication support:

- in class, support from a:
 - teaching assistant (TA) or learning support assistant (LSA)
 - communication support worker (CSW)
 - teacher of the deaf
 - support from a cued speech translator
- pre-tutoring for the introduction of new vocabulary and concepts
- post-tutoring for the reinforcement and clarification of lessons

It is important to remember that the above are there to support you in teaching a deaf child in your class.

Additional information about the range of communication methods that deaf children use can be found in Section 2 of this booklet.



Here are some examples of good practice when working with someone supporting a deaf child:

- share your lesson plan for the day, week or term with the support worker and you can work together on how best to teach a deaf child
- a support worker may not have in depth knowledge about a subject that you are teaching and so it would be helpful if you could offer clarification or notes before the lesson
- some support workers write notes down for a deaf child so pre-prepared notes can save a lot of time and help the support worker to concentrate on helping the deaf child

- make sure that there is room next to you for the communication support worker to stand or sit – it is better for the deaf child to see both teacher and support worker
- do not assume that a support worker (such as a CSW) is translating everything that you are saying into sign language as they are not qualified to interpret between BSL or ISL and English, unless they have undertaken a recognised interpreter training course

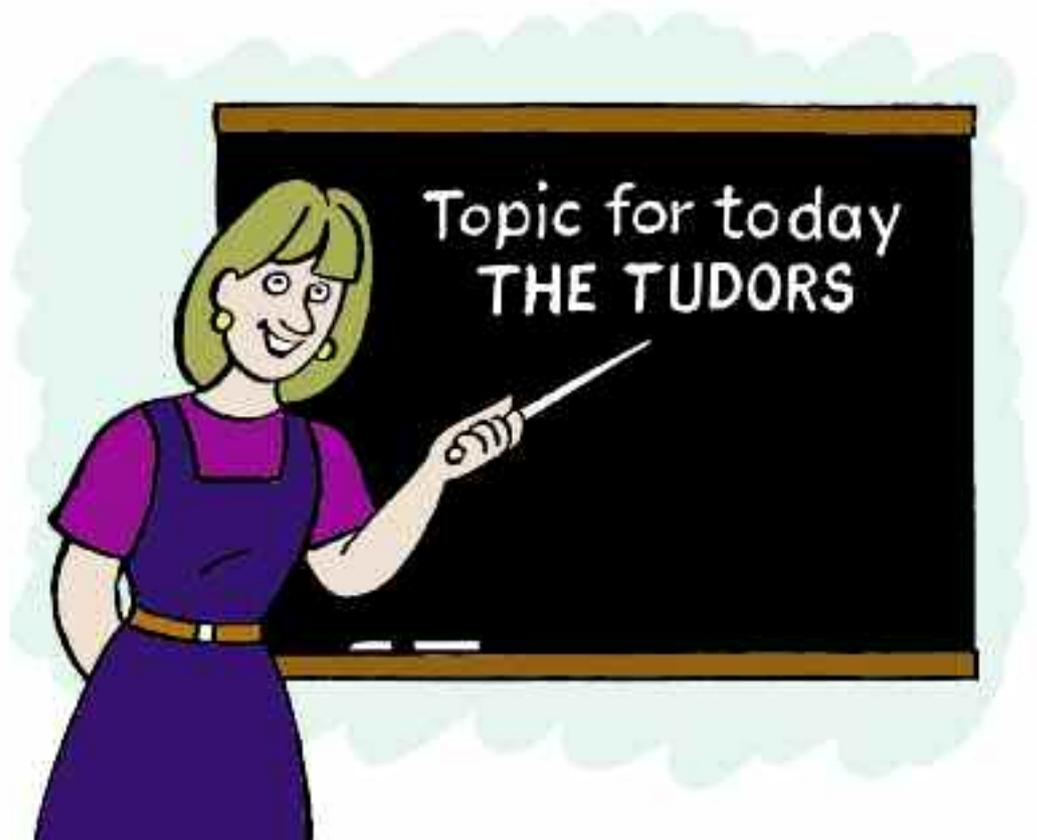


- make sure that the support worker is comfortable with your pace – allow time for the deaf child to look at you and then the support worker before moving on to the next subject and/or visual aid
- make a note of vocabulary or concepts that a child found difficult during the lesson so that you can share your concern with the teacher of the deaf
- the support worker may also have some ideas about incorporating deaf issues into a mainstream class

Visual aids

Everybody has an individual learning style. Deaf people, of all ages, seem to process information differently and use context and their vision to access information. Understanding how deaf children learn best, and being adaptable in your teaching approach, are vital factors in helping deaf children to learn effectively in the classroom.

Use written/visual support and context whenever possible:



- write topic headings and key questions on the board in advance, or use presentation slides to reinforce the lesson
- point clearly to objects or pictures when they are being discussed
- try to use film clips or DVDs that have subtitles – if a film does not have subtitles write a summary of the content before the session begins
- allow a child to borrow the DVD after the lesson so that they can either go through it again with their teaching assistant or take it home to watch again – check that the child does not have lots of other materials from previous lessons to review, as it is important that a deaf child has the same chance as their hearing peers to have time to relax after school



- provide the pupil and the teaching assistant with a list of key words and concepts before the lesson begins
- note down new vocabulary and key words on the board or presentation slides
- support what you are saying by using pictures whenever you can
- think of visual ways of making conceptual connections and links between the meaning of words

"I hate it when we have to move around, the other children are so noisy"

Bethany, aged 8.

"My ears go bang when someone shuts the door loudly and it hurts sometimes"

Harry, aged 7.

"When we go to I.T. it's quite hard because it's like an echo"

Sammy, aged 15.

"The chairs make so much noise it hurts my ears"

Joshua, aged 8.

The teaching and learning environment

The layout and type of classroom can make it easier or harder for a deaf child to learn. Noise makes things difficult for pupils who use hearing aids or cochlear implants, because their microphones amplify all noise in addition to what is being said. Pupils who have mild or unilateral deafness who do not use hearing aids may also find it difficult to pick out speech from background noise.



It will help a deaf child a great deal if you become more 'noise aware' and do what you can to improve listening conditions. Here are some suggestions:

- encourage a deaf child to not only sit close to and face the teacher, but also where they are able to see as many of the other pupils as possible
- close the classroom door when the corridor becomes noisy
- think carefully about how to organise the environment when you want to darken a room to show slides or film clips – lights should not be completely out
- close the window and draw curtains when there is a noise outside
- use wall displays to cover and soften large flat surfaces and carpet floors where possible, as this will help to reduce echoing
- where possible have a 'quiet' area within the mainstream classroom that can be used for individual, paired or small group work

- encourage children to maintain a quiet working atmosphere and try to make hearing children aware of various noises that, for example, a hearing aid can amplify, such as chairs scraping, doors banging, general chatter, shouting, dropping objects and so on



Group work

Group work is an important learning and social activity for all children. Therefore consideration needs to be given as to how deaf and hearing children can work together and to make sure that everyone in a group is fully included.

A teacher could manage group dynamics effectively by:

- showing a positive attitude and understanding towards deafness to pass on to hearing pupils
- making sure that the seating arrangement is such that the deaf child can see everyone in the group
- paraphrasing or simplifying any contribution made by other pupils, essentially repeating what they have said but in a different way
- identifying the next speaker by introducing them clearly, or indicating by their hand
- making sure that only one person talks at a time (asking other pupils to hold the radio aid microphone when speaking will also encourage this)
- summarising, reviewing or repeating the main points of the group discussion at the end of session

“I used to always ask what was being said but now I’ve given up”
Connie, aged 15.

“Sometimes it’s hard to hear because some people are talking and the teacher is talking and I can hear them both”
Jonah, aged 7.



Technical support

There is a range of technical support now available for deaf children. Such technology can be used to make the teaching and learning process for deaf children easier.

Deaf children can wear a radio aid system together with their hearing aids or cochlear implant. This will help them to pick out a teachers voice and cut out background noise. Below are a few basic rules to remember when a teacher and a deaf child are using radio aids:

- although a child is using a radio aid, they may still be making use of other forms of communication, for example signing, lipreading and other visual clues, so the general advice given on pages 6–8 remains important
- remember to switch on the transmitter when using it to talk to a deaf child
- remember that if the radio aid transmitter is not switched off, children may be able to hear conversations that they are not supposed to hear, such as when a teacher leaves the room or if a teacher is speaking to another child individually
- a radio aid transmitter can pick up unwanted background noise if the teacher is standing in a particularly noisy area, or if there is a sudden and unexpected noise – teachers should consider turning off the transmitter for brief periods in these situations

- teachers should avoid wearing loose jewellery, tie-clips, and so on that can knock the radio aid microphone and create noise
- radio aids must be checked regularly to make sure that they are working properly
- when using a radio aid transmitter do not fiddle with or tap into the microphone
- do not shout into the microphone
- wear the microphone approximately 15–20 cm from the mouth
- pass around the transmitter in group discussions



When teaching deaf children who wear hearing aids or cochlear implants, it is a good idea to check that their hearing aids or cochlear implant is switched on and working before starting a lesson. It is also important, for both hearing aid and cochlear implant users, that background noise is kept to a minimum in the classroom. One problem that can occur with hearing aids is acoustic feedback which causes a high pitched whistling sound (usually as a result of a poor fitting earmould). You also need to be aware of the possibility that a battery may fail at any time, so it is useful to have spare batteries (this applies to cochlear implants as well as hearing aids).

If you have any questions about a pupil's radio aid, hearing aids or cochlear implant, ask for advice from the visiting teacher of the deaf (from the local advisory service) or a teacher of the deaf working in the unit within your school.

Additional information about radio aids, hearing aids and cochlear implants can be found in Section 2 of this booklet.

“My teacher always forgets to switch the microphone off (on the radio aid) and it is quite funny sometimes as I can hear everything outside!”

Michael, aged 13.

“I look after my own hearing aids. I clean them and change batteries”

Ryan, aged 9.

“I don't like wearing hearing aids. I just want to be like everyone else”

Shainal, aged 15.

The social and emotional development of a deaf child: practical considerations

The full inclusion of a deaf child in a mainstream school can only work if the deaf child is comfortable with their own identity. A deaf child may be the only deaf person in their mainstream school and as a result their contact with other deaf children and deaf adults may be very limited.

If a deaf child speaks, it is very easy to forget their needs as a deaf person. The child is expected to live in a hearing environment, yet they cannot hear. They can grow up to feel different from their peers and sometimes are not able to explain why. Once a child has accepted and learnt to understand their deafness, this will allow them to learn more effectively. However their ability to learn can also be affected by how they are treated by others because of their deafness.

Peer groups

It is important that deaf children have plenty of opportunities to be educated alongside a good-sized deaf peer group. A peer group can lift feelings of isolation and frustration as pupils discuss their common experiences that are not shared by hearing people. Where this is impossible, schools should provide deaf children with opportunities to meet with other deaf children.



Deaf role models

Using deaf role models can also help deaf pupils to understand their feelings and resolve issues. In this way a child can build up a relationship with someone who is deaf as well, and have the opportunity to learn about what it is like to grow up in a hearing environment while still being deaf. They would be able to ask questions about being deaf, and develop strategies for becoming independent and confident at communicating in unfamiliar environments. Staff and pupils can be introduced to the idea that deafness can be a positive attribute rather than a disabling condition. Someone from a Deaf cultural background can bring valuable information regarding deaf traditions, cultural values and the structure of the Deaf Community.

Break, lunchtimes and after-school activities

Break times can be an isolating experience for a deaf child, and staff should encourage good interaction with all children. Deaf students may need encouragement to be involved in lunchtime and after-school activities. It is equally important that they are given space to 'recover' from concentrating throughout the day. If they tend to mix more with their deaf friends for ease of communication, then let them do so. It depends on each individual child and the level of their confidence as to how well they mix socially. It's a fine line between encouraging friendships and forcing participation.

Always discuss an individual child's needs with specialist staff, the child themselves and their parents.

Remember that no two deaf children are the same.



"I like this school because I've got friends who have hearing aids like me. At my other school I was the only one"
John, aged 11.

"I like it here because I have deaf and hearing friends"
Somia, aged 10.

"I like meeting deaf children from other schools"
Jamie, aged 12.

"My friends sometimes call me the 'deaf boy!'"
Jason, aged 13.

*"I like songs
that I know."*
Shelly, aged 7.

*"We have to say
good morning
Mr Brown every
morning but if a
new teacher
comes in
I don't know
what to say.."*
Tania, aged 9.

Notes for primary school teachers

In addition to the above, there are a number of issues for primary school teachers to particularly bear in mind when working with a deaf child such as:



- eye contact is very important so get down onto the deaf child's eye level
- watch out for signs of falling confidence and self-esteem – this can happen at the stage when children start to use conversation instead of physical contact when playing
- look for signs of tiredness and fatigue which may lead to frustration and temper tantrums – deaf children may have to try harder than most pupils which can be exhausting
- timetable lessons that require the most concentration to be held in the mornings
- develop familiar routines in the day so that a deaf child can gain confidence
- try not to make sudden changes in their timetable, teacher or tasks
- remember to gain a deaf child's attention before starting to give instructions or start a conversation
- don't overload the child with too many oral instructions
- don't make the child concentrate on lipreading for too long without a break
- use stimulating visual materials
- use toys which are brightly coloured, feel nice to touch, have an interesting texture and/or are attractive to look at – these are good to use with deaf children
- remember to use toys which are not beyond the child's level of language

Electronic equipment is a useful way of helping develop spoken language. Many toys 'talk' to the child and 'ask' specific questions that a child can answer by pressing certain buttons or controls. The quality of the electronic voice needs to be very good for deaf children to use them. If there is a volume control on the electronic toy you can make it louder, although this may distort the quality of the sound. If the toy has a headphone socket it may be possible to connect a special direct input lead for the toy/computer to a hearing aid.

Notes for secondary school teachers

The transition from primary to secondary education is a worrying time for many 11 year-olds, but particularly those who are deaf. They may know that it will take them longer than their peers to get used to a new routine. They may be embarrassed by their limited literacy skills and worried that their new teachers and peers will think they are stupid.

You may wish to encourage the use of pocket notebooks and personal checklists, stuck to the classroom wall. Ask yourself if there are sufficient visual reinforcements in the classroom. It is also helpful for teachers' and other pupils' names to be provided in a written form to avoid confusion and embarrassment.

Here are several important points to remember:

- take time to find out the most effective ways of communicating with the deaf child
- allow time to reinforce new vocabulary and concepts
- use visual aids whenever possible, for example pictures, objects, models
- don't write and talk at the same time
- don't make a child concentrate on lipreading for too long without a break
- don't overload a child with too many oral instructions
- when using film clips or DVDs, remember deaf children should not be expected to take notes, as every time they look down they miss information which hearing children can listen to



"It was quite easy in the infants and it's quite hard now.."

Joshua, aged 12.

"It's really big here and I got lost all the time when I first started and used to take ages finding the right room!"

Jessica, aged 13.

"I have to do extra work at home to keep up with my mates."

Joe, aged 15.

- give written transcripts of any taped information as taped information is difficult for deaf pupils to access
- give aural tests in person rather than using tapes
- dictation should not be used with deaf children as they will not be able to follow what the teacher is saying and take notes at the same time – where possible give out handouts for pupils to use after



- don't always expect an immediate answer
- don't assume that a child has certain knowledge, but check what they know first
- remember that deaf children cannot pick up auditory information in the same way that hearing children can, for example, by listening to conversations, the television or radio
- if you know the child can do better and has completed some work which is below their usual standard don't just let it pass, but talk to them about the task so that they understand what they need to do and are clear about your expectations of them

Management issues for governors and head teachers

All schools should develop a well-defined policy on inclusion as part of their Special Needs Policy or Additional Support for Learning Policy. This should include an undertaking from the whole school to promote positive attitudes to deafness and deaf people, that allow deaf pupils to feel valued as members of the community. Decisions on funding, staffing, staff training and development of other school policies should continually take account of those principles.

When deaf pupils are placed in a mainstream school for the first time, deaf awareness training for staff and pupils is vital. This is so that mainstream teachers are ready to include deaf pupils before they arrive. Formal and informal training should be available for all staff in the school, not just those directly involved with the deaf pupil. Planning time should be allocated to all staff supporting deaf children. Extra time should be given so that they can meet to discuss and plan effective support for each child.

Deaf children should be specifically included within all policies and practices relating to equal opportunities and anti-harassment or anti-bullying. These policies should be drawn up in co-operation with parents and pupils. They should include positive action to prevent social and academic discrimination against deaf pupils. The same consideration should be given for any other policies that the school has, for example the Child Protection Policy.

When setting the budget, it is important to consider the extra cost of updating equipment. You may wish to change the school's televisions to those that have Teletext and you will need to be able to record subtitles. That will make more programmes accessible to a deaf child. Installing a textphone in the school will give deaf parents equal access to the office. It also can allow deaf pupils to make phone calls when necessary, either directly or by Text Relay*. When considering structural and environmental changes, do consider how it will affect the acoustics of the listening environment.

If deaf children are transported to school via taxis or other arranged transport, alternative transport arrangements should be made for extra-curricular or social activities, which may take place after school hours. Many deaf children are excluded from these and miss out on vital social integration. This can be made possible by re-arranging the times of transport.

Fundamentally, the academic and social success of deaf children within mainstream schools will depend on a number of key factors.

These include:

- understanding how best to meet the needs of individual deaf children
- involving deaf children in making decisions about their education
- deaf awareness and training for all staff
- the continued professional development of teaching staff
- the acoustic conditions of classrooms and the wider school environment
- working in partnership with the parents of deaf children

If you have any queries on improving access for your deaf pupils, contact the NDCS.

*Text Relay is a relay service that allows deaf people access to the telephone system www.textrelay.org

Section 2

Additional information

“When being interviewed at the school, his mother shared her concern that her son wasn’t hearing properly. His teacher replied: How can he be deaf, when he speaks so well?”

“Charlie doesn’t show enthusiasm in group work”

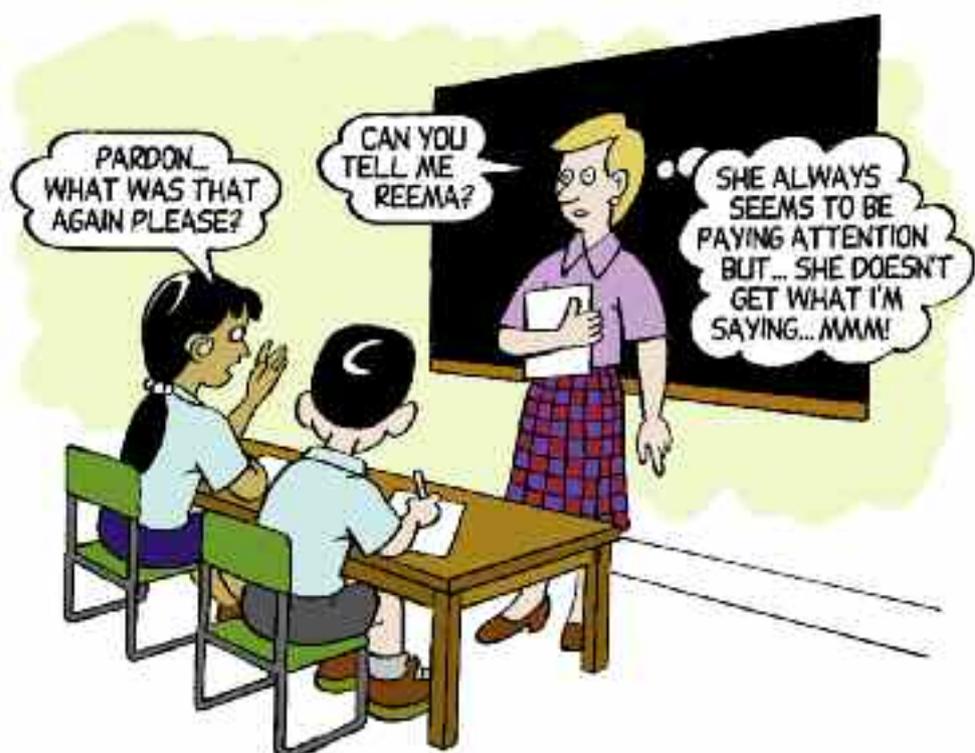
“This child is not deaf, she is just slow in responding and learning to speak”

How to identify deafness

If you have concerns about a child’s work or behaviour, it is important to raise them with their parents. Parents should be encouraged to visit their family doctor and to make sure that if deafness is suspected the child is referred for further tests.

The following may indicate a potential hearing loss:

- does not respond when called
- a delay in learning to speak
- a lack of clarity in speech, slurring of words, incorrect pronunciation
- unstressed words in speech (especially prepositions, for example ‘in’, ‘on’, ‘up’) may be missed or misinterpreted
- watches faces/lips intently
- reluctant to speak freely, for example a nod or shake of the head rather than saying ‘yes’ or ‘no’
- displays of inappropriate behaviour or temper tantrums
- verb tenses may be incorrect
- any difficulty in listening and attending to speech
- constantly asking for repetition – ‘pardon?’, ‘what?’, ‘eh?’



- failure to follow instructions straight away or misunderstands/ignores instructions
- requires repeated explanations
- watches what the others are doing before doing it themselves
- continues with an activity when the rest of the class has stopped
- inattentive and 'daydreaming'
- doesn't pick up information from overheard conversations



- attempts to control and dominate conversation through talking
- becomes withdrawn
- makes little or no contribution to group or classroom discussions
- shouts, or talks overly loudly
- speaks very softly
- complains of not being able to hear
- frequently seeks assistance from peers
- low results in reading and oral subjects, but may have good results elsewhere

What is deafness?

Some children are born deaf, and other children may become deaf early in life, for example as a result of an illness like meningitis. There are two main types of deafness, which are described below:

Conductive deafness

This is the most common type of deafness. It means that sounds cannot pass through the outer and middle ear to the cochlea and auditory nerve in the inner ear.

Glue ear, a build up of fluid in the middle ear, is the most common cause of conductive deafness in children. Glue ear can come and go, but a child with glue ear will usually hear speech and sounds as muffled and indistinct.

Children with glue ear can have some of the same problems at school as children with a permanent deafness. They may have to try harder to follow lessons and to hear in a noisy classroom. They may also find it hard to play or interact socially with their classmates because they find it hard to follow conversations or they have speech that is not clear. Without additional support, children with glue ear may fall behind at school. For more information on glue ear, contact the NDCS Freephone Helpline on 0800 800 8880 (voice and text). If you think that a child in your class has glue ear, tell their parents or the school nurse. You can also use many of the tips in this booklet to help a child with glue ear.

Sensori-neural deafness, or nerve deafness

Sensori-neural deafness is caused by a fault in the inner ear or auditory nerve. This is sometimes called 'nerve deafness' but this term is usually not completely accurate, as most sensori-neural deafness is caused by a problem in the cochlea. Commonly, this is because the hair cells of the cochlear are not working properly. Sensori-neural deafness is permanent.

Mixed deafness is a combination of conductive and sensori-neural deafness, for example a child who has a permanent deafness and also has glue ear. Glue ear can come and go, but a child with a sensori-neural deafness and glue ear will find it harder to hear than usual, even with their hearing aids.

There are some children who have little or no hearing in one ear, and ordinary levels of hearing in the other. This is known as unilateral deafness.

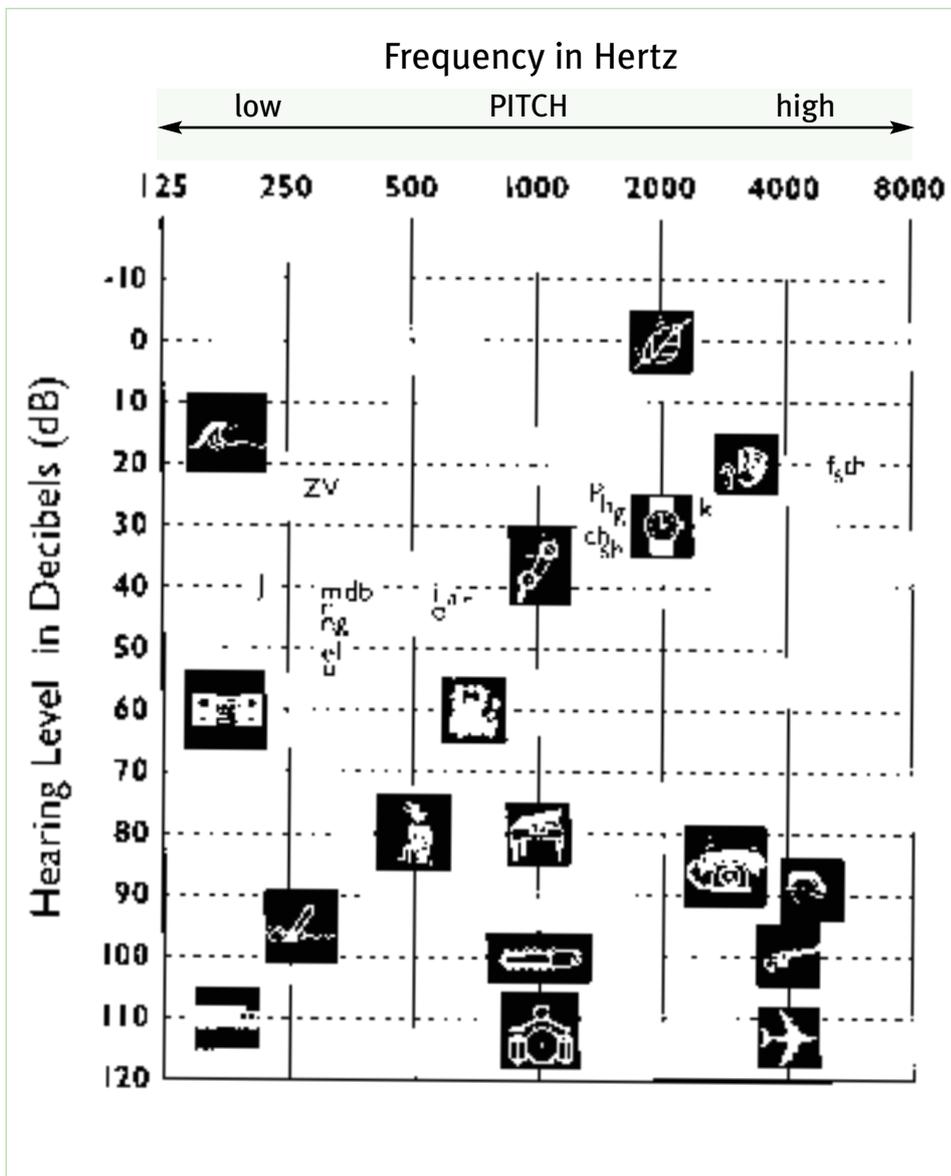
A child's deafness can be described in two ways. Firstly, how loud a sound has to be so that the child can hear it (measured in decibels – also referred to as mild, moderate, severe or profound deafness). Secondly, which frequencies (pitches) the child can or cannot hear (measured in hertz). This means that each child's deafness is different, depending on how loud and at what frequency a sound has to be before

they can hear it. The diagram shows the loudness and frequency of some everyday sounds.

It is important that you are aware of a deaf child's level and type of deafness, and also that you are aware of the additional sounds that they can access through their hearing aids or cochlear implants.

For further information about deafness contact the NDCS Freephone Helpline on 0808 800 8880 (voice and text) for a copy of the booklet *Understanding Deafness*. The NDCS also has information on glue ear, meningitis and deafness, and hearing aids and cochlear implants.

A visual representation of the loudness and pitch of a range of everyday sounds.



Levels of deafness:

Mild Deafness
24 – 40 dB

Moderate Deafness
41 – 70 dB

Severe Deafness
71 – 95 dB

Profound Deafness
95+ dB

Language and communication

Choosing which communication approach their deaf child will use can be a difficult decision for parents. There is an on-going debate about the best communication approaches for deaf children.

The National Deaf Children's Society gives parents access to clear and balanced information about all the communication approaches available, to help them to make their decision. The right communication approach is the one that works best for the child. Some deaf children use more than one communication approach, so wherever possible a deaf child should be given a choice about which communication approach they prefer to use at school.

There are a number of different communication approaches. The three main communication methods are **auditory-oral options**, **sign bilingualism** and **total communication (TC)**.

Auditory-oral approaches

All auditory-oral approaches maintain that many deaf children can develop their listening skills and a spoken language. These approaches emphasise the use of hearing aids, radio aids and cochlear implants to maximise the hearing a deaf child may have. These approaches can be used with children who may have deafness ranging from mild to profound. Auditory-oral approaches do not use sign language or fingerspelling to support the understanding of spoken language. There are differences between the auditory-oral approaches in the direction of support and intervention.

The **natural aural approach** is the most widely used of the auditory-oral approaches. It emphasises the role of the family in helping deaf children to develop spoken language naturally. The approach aims to achieve this through the normal experiences of childhood and consistent use of well-maintained hearing aids or cochlear implants.

The **structured oral approach** is different from the natural aural approach. It is used to encourage the child to develop speech and language, using the hearing a deaf child has, and lipreading, with a particular structured teaching system. It often uses written language to lend support to the learning process.

You may come across other types of auditory-oral approaches, such as **maternal reflective** and **auditory verbal therapy (AVT)**.

Lipreading/speechreading is the ability to read lip patterns. Lipreading is difficult to learn but many deaf children will naturally try to lipread when they are communicating. Deaf children need a good understanding of the English language to get the most out of lipreading. As children are building up an understanding of the language, they may find it difficult to lipread words unfamiliar to them. Lipreading relies on a speaker having a clear lip pattern, and requires intense and sustained concentration which means it can be very tiring. So lipreading would usually be used together with other communication approaches.

Sign bilingualism

Sign bilingualism describes an approach that encourages the learning and using of two languages at one time, a sign language and a spoken/written language. In Britain, for deaf children, these are English (or another spoken language) and British Sign Language or Irish Sign Language (BSL or ISL) being the preferred language of the child. The assumption behind this approach is that if parents are given the right support and encouragement, they can learn to communicate with their deaf child. Many parents prefer to use their first language, for example English or Urdu, with their child. This can be in spoken form or spoken with signs taken from BSL or ISL (known as Sign Supported English). Bilingualism encourages this. However, it is also seen to be important that a child has access to both the language used by their parents and to deaf adults who use BSL or ISL as their first language. The majority of deaf children are born to hearing parents, so supporters of sign bilingualism feel that parents should be given the opportunity to meet deaf adults to learn and see sign language in a positive way.

British Sign Language (BSL) It is estimated that over 70,000 people within the British Deaf Community use BSL as their first or preferred language¹. It is a visual language using hand-shapes, facial expressions, gestures and body language to communicate. An independent and complete language with a unique vocabulary, it has a structure and grammar different from that of written and spoken English. Similar to other languages, it has developed over time and has also developed regional dialects. In March 2003 BSL was officially recognised as a language by the British government.

Fingerspelling is where each letter of the alphabet is given its own sign. It is used for signing names, places or for words that don't have a sign.

¹ BDA Sign Language policy document.
www.britishdeafassociation.org.uk

Total Communication

Total communication (TC) is a philosophy of educating deaf children. It involves combining a variety of techniques from a combination of communication approaches, or from only one approach. The communication approaches and techniques will vary from child to child. The aim is to encourage the child to communicate using approaches and techniques that suit the child best. The most common sign language systems used within Total Communication are **Signed English (SE)** or **Signed Supported English (SSE)**, which both take signs from BSL and use fingerspelling. Signed English is designed as a teaching tool, and uses signs for every spoken word in English word order, plus sign markers to give guidance on important grammar and fingerspelling. Its aim is to develop reading and writing skills. Signed Supported English is again used in English word order, plus sign markers to give guidance on important grammar and fingerspelling, but does not attempt to sign every word that is spoken.

Other sign systems such as **Cued Speech** and **Signalong** may also be used. Cued Speech can be used to distinguish between words that look very similar when they are lipread by deaf people, for example 'pat' and 'bat'. It uses eight handshapes in four different positions (cues), placed near the mouth to accompany spoken language, to help make every sound and word clear to a deaf child. It can be used with sign language or to complement an auditory-oral approach. Signalong is a sign system used with children and adults who have language difficulties associated with learning disabilities and autism. The signs are based on BSL and are used in English word order. Signalong is intended to support spoken language and is sometimes used with deaf children with additional needs who have not developed a language but use some gestures.

Makaton is a language programme that uses BSL together with unique Makaton symbols to provide basic communication and to develop language and teach literacy skills for deaf children with severe communication and learning disabilities. Grammatical signs are taken from Signed English.

For further information on communication for deaf children and young people, contact the NDCS Freephone Helpline on 0808 800 8880 (voice and text).

Technical support

It is advisable to contact the local advisory service or teacher of the deaf for further details regarding technical support for an individual deaf child. The following is an example of what is available:

Hearing aids

Most hearing aids have a common purpose – to amplify sound signals. They come in various shapes and types, and may be worn on the body, behind the ear, or in the ear.

Input	Amplification	Output
 <p>The microphone on the hearing aid picks up sounds.</p>	 <p>The hearing aid changes the loudness of the sound or parts of the sound.</p>	 <p>The hearing aid sends the amplified (louder) sound into the ear through the earmould.</p>

How hearing aids work

Hearing aids should be adjusted by an audiologist to suit a child's specific needs. They help deaf children to make the most of any residual hearing they may have. They do not restore typical hearing levels. It is important to remember that most hearing aids amplify all noise, which makes listening difficult in noisy environments.

It is the responsibility of the clinician concerned to provide children with the most appropriate hearing aid/s to meet their individual needs. It can be common to find a different level of deafness in each ear. To help with this, different makes and models of hearing aids can be fitted for the left and right ears. If a child removes their hearing aids, for example during PE lessons or games, it is important to make sure that they are put back the correct way round. Always ask the child how the aid is sounding and encourage them to tell you of any changes. It is a good idea to keep a supply of batteries for emergencies.

For more information on hearing aids, contact the NDCS Freephone Helpline on 0808 800 8880 (voice and text) for a copy of the booklet *Hearing aids: information for families*.



In the canal hearing aid



Behind the ear hearing aid



Body worn hearing aid



In the ear hearing aid



Bone conduction hearing aid



A typical ear level cochlear implant



A typical body worn cochlear implant



Radio aid connected to a digital hearing aid

Cochlear implants

Cochlear implants are most often used by deaf children who gain little or no benefit from hearing aids. Cochlear implants use electrodes, implanted into the cochlea of the ear, to send electrical signals directly to the auditory nerve and give a sensation of hearing. Like hearing aids, cochlear implants do not restore typical hearing levels.

The implant system has two parts. The external part consists of the speech processor (either worn on the waist or behind the ear), a transmitter coil and a microphone. The internal part is surgically implanted under the skin behind the ear. It includes a receiver and the electrodes.

Children who have cochlear implants can take part in most activities. Ask the child's parents to check with their cochlear implant team for advice about physical activities and check the safety guidelines on the British Cochlear Implant Group website www.bcig.org.uk.

For more information on cochlear implants contact the NDCS Freephone Helpline for a copy of the booklet *Cochlear Implants – A guide for families*.

Radio aids

Many deaf children find radio aids useful, especially at school. The local authority (LA), or Education and Library Board (ELB) in Northern Ireland, provides the majority of radio aids and the provision of a radio aid may be included in a child's Statement of Special Educational Needs or Co-ordinated Support Plan.

Most radio aids are of a type known as 'personal systems'. These are used together with the child's hearing aids or cochlear implants. All radio aids have two main parts: the transmitter and the receiver. The teacher wears the transmitter. A microphone picks up the teacher's voice. The sounds are then transmitted by radio waves to the receiver. The deaf child wears the receiver. This picks up the radio signal from the transmitter and converts it back to sound, which is amplified by the child's hearing aids or implant.

Radio aids work on different frequencies, like tuning into different radio stations. For example, each school class might have its own frequency so that it does not interfere with the class next door. The frequency can usually be altered quite easily, either with a control on the aid or by replacing a plug-in module. A colour, letter or number code is used to show which frequency the radio aid is working on. The transmitter and receiver must have the same code if they are to work together.

Radio aids can be used with cochlear implants, bone anchored hearing aids and hearing aids. Some radio aid receivers are known as 'ear level receivers', these are very small devices that attach directly to a cochlear implant, bone anchored hearing aid or hearing aid. Others receivers are worn on a belt or around the neck and connect to the hearing aid with a wire. For both types of receiver to connect to a hearing aid a special adapter called a direct input shoe is needed, these are unique to each hearing aid. Connection to bone anchored hearing aids and cochlear

implants vary and a teacher of the deaf or the child's audiologist will be able to advise.

Radio aids can also be used for children who do not have a cochlear implant, bone anchored hearing aid or hearing aids, for example those with a very mild or unilateral hearing loss. For this a different receiver is used which sits in the users ear and picks up sound from the transmitter.

For more information on radio aids contact the NDCS for a copy of the booklet *Radio aids: an introductory guide*.

There is a range of technology available that can help deaf children in school. The National Deaf Children's Society's Technology Test Drive gives children the opportunity to try out new equipment such as radio aids at home and at school. For further information please contact the NDCS Freephone Helpline on 0800 800 8880 (voice and text) or by email to helpline@ndcs.org.uk.

Soundfield systems

A soundfield system can be used to improve the listening conditions for all children in a classroom, including children with glue ear or a mild deafness. Speakers are situated around the room, and the teacher wears a radio microphone. The teacher's voice is amplified just enough for it to be heard clearly above any background noise. Portable systems are also available.

Deaf children who use radio aids can use them in a classroom with a soundfield system, but both systems will need to be set up to work side by side.

For more information on soundfield systems, contact the NDCS Freephone Helpline.

Communicating with deaf children

Do:

✓ Speak clearly and naturally. Try to use an expressive face.

✓ Get a deaf child's attention before you start speaking. Try waving, knocking a table or tapping their shoulder lightly.

✓ Face a deaf child when you're talking. Always make sure the deaf child can see your face clearly. If necessary, sit down or crouch so that your face is level with theirs.

✓ Use visual cues, where possible. Point to what you're talking about.

✓ Make it clear what the topic of conversation is – and let the deaf child know if it's changed.

✓ Stand with your face to the light.

✓ Use whole sentences to help a deaf child pick up clues to what's being said

✓ Group conversations can be difficult for deaf children. Try to keep a deaf child involved, and avoid all speaking at once.

✓ Ask a deaf child to repeat what you've said if you're not sure if they've understood.

Don't:

✗ Speak too slowly or shout – this will distort your lip patterns.

✗ Move your head or walk around while you're talking. Speech movements can easily be missed.

✗ Have lots of noise on in the background like a TV or washing machine. Hearing aids amplify all noises, not just your voice.

✗ Take forever to get to the point. Avoid rambling.

✗ Cover or put anything in your mouth while talking. Eating or smoking while talking is a definite no-no.

✗ Stand with your back to a window – this can turn your face into a shadow and make it harder to lipread.

✗ Make a deaf child lipread for too long without a break. Lipreading involves a lot of concentration and can leave deaf children feeling tired.

✗ Give up. If stuck, try explaining in a different way or writing it down. Or if you have a mobile to hand, text it on your screen.

Remember – every deaf child and young person is different and deafness can range from mild to total. Some deaf children may sign, some may lipread, some may listen and some may speak. Some may do all these things. Always ask how they prefer to communicate.

NDCS is the leading charity dedicated to creating a world without barriers for deaf children and young people. There are over 45,000 deaf children living in the UK and four more babies are born deaf here every day. NDCS believes that every deaf child should be valued and included by society and have the same opportunities as any other child.

www.ndcs.org.uk

Freephone Helpline: 0808 800 8880

NDCS, 15 Dufferin Street, London EC1Y 8UR

ndcs
every deaf child

NDCS provides the following services through our membership scheme. Registration is simple, fast and free to parents and carers of deaf children and professionals working with them. Contact the Freephone Helpline (see below) or register through www.ndcs.org.uk

- A Freephone Helpline 0808 800 8880 (voice and text) offering clear, balanced information on many issues relating to childhood deafness, including schooling and communication options.
- A range of publications for parents and professionals on areas such as audiology, parenting and financial support.
- A website at www.ndcs.org.uk with regularly updated information on all aspects of childhood deafness and access to all NDCS publications.
- A team of family officers who provide information and local support for families of deaf children across the UK.
- Specialist information, advice and support (including representation at hearings if needed) from one of our appeals advisers in relation to the following types of tribunal appeals: education (including disability discrimination, special educational needs (SEN) and, in Scotland, Additional Support for Learning (ASL)); and benefits.
- An audiologist and technology team to provide information about deafness and equipment that may help deaf children.
- A children's equipment grants scheme and the opportunity to borrow equipment to try out at home.
- Family weekends and special events for families of deaf children.
- Sports, arts and outdoor activities for deaf children and young people.
- A quarterly magazine and regular email updates.
- An online forum for parents and carers to share their experiences, at www.ndcs.org.uk/parentplace.

NDCS is the leading charity dedicated to creating a world without barriers for deaf children and young people.

**NDCS Freephone Helpline:
0808 800 8880 (voice and text)**

Email: helpline@ndcs.org.uk

www.ndcs.org.uk

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