Early Support

Helping every child succeed

Monitoring protocol for deaf babies and children

Level 2 materials





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About this publication

These materials help professional practitioners and families look in more detail at any issues arising from use of the *Early Support Monitoring protocol for deaf babies and children*.

Professional practitioners will need to bring their expertise and understanding of audiology, speech acoustics and language analysis to the task of using this material. Families should be able to draw on the skills, knowledge and understanding of early years practitioners with a detailed knowledge of childhood development and the impact of hearing loss as they use it. It has been written for a mixed audience, but in the expectation that families will normally use it in discussion with the professionals who support them.

The material is designed to support understanding of how an individual child is moving forward, their particular strengths and needs and how to promote development. The materials help clarify a child's current functioning in relation to key aspects of communication, language, attending, listening and vocalisation.





When should these materials be used?

For Level 2 checks from B5 onwards (at the end of the first year following identification of a hearing loss and the provision of support to the home, including fitting of hearing aids) or earlier if parents wish or have concerns. The additional tables are to be used as follows:

C1: (at end of B5) 12 months following identification.

C2: (at end of B8) 21 months following identification.

C3: between stages B9–B11, ie between 2 and 3 years following identification.

How to use these materials

These second layer materials are designed for parents and professionals to look in more detail at aspects of the child's communicative development at certain stages in their child's development as he or she learns 'how to mean'. Many parents will feel adequately supported by using the main Monitoring protocol to monitor this and will not feel the need for an ongoing check in relation to the second layer materials. Their child's progress will 'speak for itself' as it is highlighted by the Monitoring protocol. If, however, the parent or professionals have any concerns or the parent just wants more reassurance it is possible to use the checklist C1, at or before stage B5, to track the child's progress towards intentional communication. For this reason we have included some additional discussion of development at the early stages to support understanding of the processes involved.

At key points in the *Monitoring protocol for deaf babies and children* we have identified when Level 2 checks should take place, so that the specific behaviours that should be evident, by a given age/stage can be checked. For communicative intentions these timescales are listed above. Should the child be found not to be using the behaviours, or indeed not to have moved on as much as was targeted the last time the tables were used, (for example behaviour still has to be described using Table C1, whereas given the age since identification the table now in use should be C2) then there needs to be some discussion as to why this is the case. It may be that there is a simple explanation, for example child illness, which over the last few weeks has slowed down progress. If however there is no obvious reason and the child appears not to be moving forward, then it is important to discuss this with others or carry out other more detailed analyses of what the child does and how they communicate meanings. Some suggested additional procedures are included in Early words and meanings, section 2 and in Further procedures that can be used, section 5.

For most families the communicative intentions tables should give them an opportunity to recognise the significance of their child's behaviour and provide them with confidence that what they are doing makes a difference and is supporting their child toward increasingly effective communication. The section entitled Parent-child interaction provides additional suggestions should parents wish to explore how they can support their child further or need further confidence about the appropriateness of what they are doing.

The importance of interaction (See also Parent-child interaction Level 2 suggestion tables)

Children develop communicative intentions because they want to interact with their own family members and get their own messages across successfully. This can only happen when they communicate with adults in a 'conversation'.

Adults are good at talking about what children are looking at or doing in the early stages.

Because they do similar things each and everyday with others, for example play games, read the same books, say the same rhymes over and over, children have plenty of opportunity to get to know the meaning of the gestures, signs/words and even begin to anticipate what comes next. They know adults want them to 'join in' because adults leave time for a reply. In the beginning when children don't reply with words/signs but with a smile, vocalisation or gesture, the adults usually fill the time themselves, interpreting a meaning, modelling the language they think the child wants to say.

When children start using words/signs their meaning can be ambiguous. For example, we all have experience of children saying/signing 'dad' when it could mean one of many things, ie 'where is dad?', 'this is for dad', 'that is dad's coat'. As adults we clarify this. We use other clues such as the child's facial expressions, gestures, situation and then check with them whether we have got it right or not by testing it. For example we ask, 'Where is dad? … Dad's in the garden.' The child shakes his/her head and we might try 'That's dad's coat. He needs it in the garden doesn't he?'

This type of reply serves the adult purpose of clarifying meaning. Most importantly for the child, the adult's strategies in doing this (asking and answering their own question, expanding the child's single word into a phrase or sentence, adding further information) move on the child's language vocabulary and meaning potential. Instinctively we, the adults, are 'scaffolding' the child's linguistic development.

As children move on we naturally expect them to use the language they have and so we give them prompts and even later feign misunderstanding so they contribute more. For example we might leave gaps for the child to fill:

Adult: 'We went to the park today and we saw a ……'

Child: 'Big dog' Adult: 'Yes we saw a big dog didn't we and it barked at us.'

Sometimes we happily fill the blanks for children after giving them the opportunity to do so themselves.

All the time then, as adults, we are extending children's thinking and language, just by talking to them about things that matter and what we and they are interested in.

We all have our own individual ways of doing this. You will use other strategies besides these and use the expressions, gestures, words/signs that come naturally to you and that you know mean most to your child. Remember that children only know how to use language to communicate their needs by observing how adults use it themselves.

When it's important to get additional information about communication skills and the development of communicative intentions a range of materials are available. Professionals may want to try the following:

Dewart D and Summers S, (1995)
The Pragmatics Profile of Early Communication Skills in Children, NFER Nelson

Stages B1–B5

The table for this section looks at how children develop and put across their meanings and intentions to other people using facial expression, body language, gesture, spoken language and/or sign. This is referred to as communicative intentions or 'pragmatics'.

Every time we communicate with another person we are intending that they understand the particular thing/s that we are saying/writing/signing in the way we mean it. Even with the sophisticated language and vocabulary of an adult our messages or 'communicative intentions' can be misinterpreted. We have to

'repair' misunderstandings as part of the communication process. We each, of course, have our own style of communication, which is linked to our individual personality, and home culture.

Babies are not born with knowledge of communicative intentions, language and vocabulary, but they are born with the basic skills to set the whole process of communicating meaning in motion. As they develop these skills further this helps them to put across their meaning with decreasing ambiguity. They do this by interacting with those closest to them, most importantly their parents, families and carers. it is very much an interactive process with children learning how to 'mean' by taking part in 'conversations'. Young children usually get immediate feedback on their communicative attempts because the adult responds. This lets them know how successful they were in their attempts to mean and motivates them to improve and extend their language and vocabulary further, ie to communicate needs, feelings, and reasons to others more clearly. How children put to use the language and vocabulary they have is important in their everyday lives, in personal relationships and, later, in educational settings.

As adults play with and care for children they communicate with them through spoken English and/or sign, facial expression, touch, gestures and vocalisations. In the early stages they are trying to gain the child's attention. They 'reward' their child with smiles, noises, touch and so on, when he or she looks at them or responds in other ways. Adults instinctively look for meaning in the things that babies and young children do and so interpret any small responses made by them as having intent, even though they may not actually have 'intended' anything at the beginning.

Gradually children's communication becomes more purposeful and they begin to use gesture and vocalisation, sometimes combining both. These behaviours may be directed towards either an object or a person. Children learn to give more clues about what they want. This makes their intentions clearer and the adult's response is more likely to be in tune with their child's desires. In time children realise that certain behaviours on their part elicit a particular response from the adults. The adults 'contingent' responses reinforce these behaviours and the child produces them even more systematically. Children may repeat some behaviours more often than others or repeat them in particular situations giving the impression of purposeful communication to those that know them well. The success of their communication, however, still owes more to adult skill at interpretation and guesswork than to the child's own communication skills.

By the end of stage B5 children's communication has moved from 'purposeful' to 'intentional'. Communication becomes intentional when children co-ordinate two or more gestures and/or vocalisations towards objects and people. Not only do they make clear their intention about some state of affairs (for example his or her cup is empty), but they also signal that they intend to communicate this to someone else (for example, she also looks at you, cup in hand). Now they are not simply throwing the cup off the table to get your attention, they are also signalling to you that you should do something specific with the cup, and now!

When children do this they show that they have begun to realise that there are speech noises and gestures that can be used to represent (or 'symbolise') a particular meaning, for example that people, objects and actions have names. This is the beginning of their move into a symbolic language. At this stage they may use their own consistent vocalisations and/or gesture (proto words or proto signs) to express

meanings, eg they call the family dog 'bobo', even though its actual name is 'Rover'.

By the time they are at the end of stage B5, it is therefore important that children communicate a range of meanings or intentions to those around them using facial expressions, gestures and vocalisations. Even before they have any recognisable words or signs, children are demonstrating that they know 'How to mean'.

By the end of stage B5 your child should be using most of the communication functions listed in Table C1. Eye contact and joint attention should be firmly established. Your child should not only be attracting your attention and asking for things, but also informing you of happenings and responding to your comments and questions, albeit through actions and gestures rather than words.

Use Table C1 with your practitioner/support worker to check that your child is making a steady transition and growth in communication, from non-intentional, to purposeful, through to intentional communication.

Section 1: Pragmatics (communicative intentions)

Table C1:
Pre-symbolic communicative intentions: using gestures and/or voice

Intentions	Descriptive examples	What my child does and how s/he tells me
Making contact with people a. using voice b. eye contact/facial expression c. attention-getting gestures	• Uses voice to gain the attention of someone they are looking at. • Vocalises, smiles and looks at adult when the adult enters the room. • Reaches with arms up ready to be lifted from a chair while looking at the person they want to do it.	
Attracting attention a. to self b. to events, objects, people	• Attracts attention by vocalising and waving arms at adult. • Points to toy and looks back and forth between the toy and the person.	
Requesting – asking for things a. objects b. action c. information	• Opens and shuts hands to indicate 'give me.....' while looking from object to adult. • Initiates actions and/or vocalisations of a familiar rhyme and looks at adult or moves to signal for adult to 'join in'. • Points to usual location of object (which is not there) and then looks quizzically at adult to ask 'where is it?'	
Protesting – rejecting	• Cries when play is disrupted and scowls at person who has disrupted it. • Pushes object away and shakes head for 'no'	
Greetings	• Spontaneously waves 'goodbye' while looking at the person they are leaving.	
Transferring	• Gives adult the object that they were playing with and makes eye contact.	
Informing	• Holds toy towards adult, points to broken part, and vocalises or gestures. • Gestures 'all gone' while showing adult empty bowl, sometimes vocalising.	
Responding – acknowledging	• May point or offer toy in response to adult sign/spoken 'where's your....', 'give me....' • Smiles at adult when they initiate a favourite game. • Spontaneously imitates adult actions and/or vocalisations while signalling enjoyment of the new game with the adult.	

Note: Categories have been adapted from Dale (1980), Dore (1974) and Halliday (1975)

Stages B6–B8

As children begin to develop a symbolic language (spoken and/or signed) they will use their words and/or signs to express and extend the range of intentions they used during the pre-symbolic stage. They will consolidate existing communicative functions and steadily add new ones. For example they communicate about 'absent' people and objects and events in the past. They do so, increasingly through recognisable words or signs, supported by context, intonation, gesture, eye contact, pointing and so on.

At the single sign/word stage children can use the same single word or sign to express lots of meanings in different contexts; for example 'dog' can mean 'there's the dog', 'I want to stroke the dog', 'where's the dog?'… it is because parents know their child and are used to interpreting clues from the child's facial expressions, tone of voice and the situation, that they are able to understand the intended meaning. Adults may often have to guess the meaning and sometimes get it wrong. When children recognise that they have misunderstood them, so they may repeat the word or sign again or try to change it a little to give us an extra clue. The adult response, in its turn often tries to clarify the child's meaning, for example the child says 'bi' and the adult replies 'oh you want a biscuit'. In so doing adults model a more mature language form.

Remember that by not only recognising, but also acknowledging your child's attempts, you are showing them that their communication is important to you and that you want to know what they are trying to tell you. This mutual motivation to understand each other and so share meaning is a key motivator in children's development of all aspects of their language.

By the end of stage B8 your child should be using most of the communication intentions listed in Table C2. They should be using language to inform and find out things in their expanding world. It is important that they can express their own needs and wants, likes and dislikes and make contact with others.

Use Table C2 to check your child's expanding range of communicative intentions at the single word/sign stage.

Stages B9–B11

Children are motivated to improve and expand their language and vocabulary as they reduce the number of misunderstandings they have in their communication with others and try to put across more sophisticated meanings, eg feelings, reasons… This is an ongoing process. Through stages B9–B11 children gradually lay the foundations for a comprehensive range of communicative intentions. It is important that they use their language structures for a wide range of purposes, not just to report on events and ask questions. Children should be able to seek information, give reasons for things (negotiating where necessary), direct others, predict what might happen next, explain how they and others feel, and imagine. They are increasingly able to explain themselves and their actions and negotiate outcomes. Using language in these 'broad' ways will support their thinking skills and promote their social wellbeing and self-esteem.

Use Table C3 to check the communicative intentions of your child when he or she is in stages B9–B11, ie to check they are trying to express more complex ideas.

Table C2:
Communicative intentions at the single element level: using single words and/or signs

Intentions	Descriptive examples	What my child does and how s/he tells me
Naming/showing – uses signs/words to refer to a. People b. Objects c. Events/locations	• 'Ganda' – 'that's grandad' • 'Borl' – 'that's a ball' • 'Dindin' – 'its dinner time'	
Commenting on/informing – tells or describes something/to someone a. people/objects b. what's happening – actions and events	• Says/signs 'small' – 'that's small' • Says/signs 'gone' – 'x has gone/isn't here' • Signs/says 'wash' – 'it's bath time'	
Requesting object – a. Present/around the child b. Absent/in another place	• Says 'ack ack'/signs 'DUCK' – 'I want the duck' • Says/signs MUMMY – where's mummy?	
Requesting action – (likes) a. something to happen b. more/again	• 'Rou..'/finger going round on palm of hand – 'do round and round the garden' • 'Again' – asking for repetitions	
Requesting information – asks simple questions about things a. People b. Objects c. Events and locations	• 'Daddy?' + rising intonation – 'where's daddy?' • Signs 'DADDY' + puzzled facial expression/shrug of shoulders – 'where's daddy?' • Looks quizically at broken toy and signs/says car (whats happened to my car?)	
Responding – to adult's questions and comments	• Says/signs 'biscuit' in response to 'what do you want?' • Says/signs 'sleep' in response to 'the baby's in bed. Shshh.'	
Protesting – rejecting (dislikes)	• Says/signs 'no', 'allgone', 'bye-bye', 'yuk', 'stop'	
Attention seeking	• Says/signs 'look' + point • Calls 'mama' till you come • Sign + reaching gesture (+ vocalisation) to attract attention	
Greetings	• Says/signs social greetings, eg 'hello', 'bye-bye'	

Note: Categories have been adapted from Dale (1980), Dore (1974) and Halliday (1975)

Table C3:
Communicative intentions – multi-element level: using multiple words and/or signs

Intentions	Descriptive examples	What my child does and how s/he tells me
Reporting on present and past activities a. labelling b. describing c. providing information d. what's happening – sequence of actions and events e. comparisons	• 'blue ball' – that's a blue ball • 'Daddy tea now' • 'Me go car. Go play group' • 'Not big, small'	
Requesting object	• 'ball please' – for 'I want the ball please'	
Requesting action	• 'Me dollie' for 'give me the doll' • 'Stop it' 'Want it now' • 'more horsie'	
Requesting information – asking simple questions about, finding out about things a. People b. Objects c. Events and locations	• 'Where daddy?' • 'Can me have it?' • 'My birthday, go Macdonald'	
Responding – to adults' questions and comments more fully, maybe with more than one 'sentence'	• 'Me not like red. Me like blue' • 'No, you can't come' • 'Buster big. Gone outside.' Said/signed in response to 'tell me about your dog, Buster'	
Protesting – rejecting (dislikes)	• 'Don't like that' • 'No going' • 'My don't want burger'	
Greetings	• Says/signs social greetings, eg 'hello grandma', 'bye-bye', 'see you tomorrow'	
Giving reasons a. Cause and effect b. Problem and solution c. Why thinks something	• 'Car fall down. Broken now' • 'Daddy mend it. Where glue?' • 'No outside. Raining.'	
Self + self within a group a. Own needs b. Negotiating c. Sharing d. Asserting self e. Joking/teasing	• 'Juice please', 'my turn' • 'In a minute', 'no bed!' • 'You have it now' • 'I want it!', 'my car' • 'Juice allgone' – pretending there's none left when there is some!	
Directing a. Monitoring own actions b. Actions of others	• 'Up the stairs' • 'You carry that one'	
Predicting – what happens next/if	• 'Burnie' in response to 'what will happen if you touch that?'	
Projecting a. Into feelings of others b. Into reactions of others	• 'Grandad happy' • 'Mummy be cross. That broken'	
Imagining	• 'Talking' to imaginary friend • Acting out imaginary play with other person	

Note: Categories have been adapted from Dale (1980), Dore (1974) Halliday (1975) and Tough (1977)





When should these materials be used?

For Level 2 checks from B5 onwards (at the end of the first year following identification of a hearing loss and the provision of support to the home, including fitting of hearing aids) or earlier if parents wish or have concerns. The additional tables are to be used as follows.

Use Table W1 at the end of B5: 12 months following identification.

Use Table W2 at the end of B8: 21 months after identification.

Use Table W3 between stages B9–B11. This table may also be useful beyond stage B11

How should these materials be used?

This part of the monitoring protocol is designed to give you and your teacher of the deaf confidence, that your deaf child is moving forward in laying the foundations of communication, getting ready to use words and, later, in the type and range of words they use and understand. It can be filled in whenever you have concerns, discussed and shared with the professionals or it can simply be used as a 'check' at the key points suggested in the main protocol. For most deaf children (as for others) this will be a smooth and steady growth and it will be very encouraging for you as parents and carers, as well as for the professionals, to see that growth – and celebrate it for what it is – progress. It will provide you with reassurance that what you and others are doing to support your deaf child's language development and understanding of the world really is working. Occasionally, using the tables identifies an area that the child does not seem to have made quite so much progress in. This will then mean that the results can be shared with others, further and additional information is gathered and questions asked, so that as quickly as possible you will feel that these concerns are addressed and suggestions are made as to how best to help you and your child to move forward. To help this there are suggestions at the end of the section as to possible materials that could be used to investigate further and the Parent-child interaction section may also help when considering how families might adjust their input if necessary.

Stages B1–B5: Tracking the development of early meanings

Long before they use words or signs, children are using a range of behaviours to communicate with others. These behaviours include vocalisation and gesture and also gaze, facial expressions and body movements. Even before children are able to express meaning, they are learning to communicate and interact by co-ordinating their behaviour with others. Social routines, peep-o and give-and-take games help to develop interaction and turn-taking. Adults treat children's body movements, gestures and vocalisations as if they were meaningful and gradually children learn that by vocalising or gesturing in certain ways, they are able to influence what others do and get things that they want. This is an important step in learning about meaning and we track these early behaviours through the monitoring protocol in stages B1–B5. They are the 'foundations of communication' and of early words and meanings.

Many other important skills and things that children learn to do also prepare the way for 'words' and language. For example, towards the end of stage B4, children are able to follow an adult's eye gaze; this marks the beginning of being able to share attention. In stage B5, children begin to use 'intentional' communication. This means that they try to convey their wishes, thoughts or intentions about objects, people and events to others. By stage B5 then, your child is beginning to co-ordinate their attention between people and objects that interest them. It is as though they want you to share in their feelings

or responses towards, for example, a favourite toy.

In particular, they will now make eye contact with others, before gesturing or vocalising and are quite clearly expecting a response. The ways in which adults respond to children's communication attempts are very important during the earliest stages of development. Acknowledging the child's vocalisation or gesture encourages them to attend further and continue the 'conversation'. Sometimes the child indicates (via facial expression, body movement, gesture and vocalisation or even crying for example) that the adult has misunderstood what was meant. Such misunderstandings are very normal and should not be seen as being specifically to do with the child being deaf. It is because they are misunderstood, that children learn to change the way that they communicate and make it more like adult language. Usually as parents we try our best to work out the meanings our child intended, but cannot always do this – sometimes this matters to the child and they try again to let us know what they want – other times the moment passes by.

By stage B5, children use 'intentional' gestures and/or vocalisations to communicate meaning. They also use gesture, as they make eye contact. This will include pointing, giving and showing and may also involve some 'conventionalised' gestures (ie gestures whose meanings are easy to work out, such as holding out a hand for something, opening and closing fist to make a request). These 'meaningful' gestures precede the first words and signs. All children use gesture in this way and deaf children too will do so, regardless of which particular communication approach is being used with them. Gesture will continue to be used to supplement early word and sign production for a long time – for example, your child, while looking or glancing at you (eye contact), may push a toy forward, point to its handle + make a noise that is an approximation of 'round', meaning – make it go round.

Important developments by stage B5 include the child's association of and growing understanding of what we call 'symbolic sounds'. The sound link between the word and the thing to which it refers (eg 'choo choo', 'woof woof') helps to make the word more recognisable and memorable for the child. Most children also by this stage, (if spoken language is the main means of communication with them), use some sounds consistently to express very simple meanings. Parents recognise and respond to these 'approximations' because they have some similar sounds to those we would use. However, often it is only the adults who know the child very well who can really work out what the sounds mean. Similarly, children exposed to sign, gesture a lot including using gestures to describe the movement and locations of objects around them. Many of these gestures are 'holistic' representations of real world events (objects falling, toys moving etc).

By stage B5 then children are beginning to isolate meaningful segments of sounds or part of signs in their spoken babble and/or sign babbling. Their first attempts at words or signs may be very different from the adult form, eg 'noo noo' for cow, or the sign for 'cow' signed with the index fingers rather than a 'Y' shaped hand. This is a very exciting thing to be happening as it shows children are getting ready to use more conventional words, but for now they have their own consistent form or 'proto-word' (a bit like having the prototype for a car) to label familiar objects and people – more adult-like words will soon follow.

Through stage B5, there are significant changes in the children's awareness of what others are attending to and ability to share their own focus of attention. By the end of the stage they can follow adult points to near and distant objects. This joint attention and mutual gaze means that this is an ideal time not only to share activities, but also for the words and signs that label and describe them, to be particularly meaningful for the child.

Use Table W1 to monitor, with a key professional (teacher of the deaf and/or speech and language therapist) your child's development of early meanings at the end of stage B5 and at any other point that you feel it would help you to understand your child's development.

Section 2: Early words and meanings

Table W1: Tracking the development of early meanings

Learning to mean	Description	What my child does
Co-ordinates behaviour with adults	• Moves body as you lean towards him or her • Maintains eye contact with you • Smiles in response to smile • Moves arms and legs when talked to • Vocalises/gestures when talked/signed to	
Tries to match their gestures and lip movements with adults	• Attempts to imitate simple gesture (eg flaps hand backwards and forwards as adult signs 'where') • Moves his/her lips as adult says 'boo' or 'where's bunny?' etc. (Does not yet understand what these gestures or lip patterns mean)	
Follows adult eye gaze	• Adult looks towards a toy, child alters the direction of own gaze to look where adult is looking	
Shows understanding of what is said/signed by changes in behaviour	• Smiles or gets excited in response to word/sign 'Mummy' or 'Daddy'	
Points to draw attention to an object, person or activity	• Makes eye contact with adult, then points (may be accompanied by vocalisation), as if to say 'look at this' and to share enjoyment or ask for information about or help with something	
Communicates non-verbally, using gestures and movement or touch	• Raises arms to be lifted • Holds palm out or makes reaching gesture to request something • Opens and closes fist to make a request • Shows an object in his or her hand • Pushes or pulls adult to get them to pay attention, move to • Nods or shakes head • Waves 'goodbye' or 'hello'	
Responds to words/signs in context	• Uses clues in the situation to work out what is meant when adult signs/says 'put on your shoes'; 'time for bed' etc	
Uses 'proto-words/signs'	• Uses 'noo noo' to refer to his or her tedddy bear • Uses own sign/vocalisation consistently meaning 'give me' 'mine'	
Uses 'symbolic sounds and gestures'	• eg 'choo choo', 'woof woof', 'miaow', 'cow' with index fingers	

Stages B6–B8: First words and signs

In these stages, children are learning how to express and understand meanings using words and/or signs. Before they can do this, they have to understand how others do this. Understanding precedes production and parents will often comment on how their child understands much more than they can say or sign.

First words/signs are context-bound, that means that children learn the meanings of words in context – they understand what a word or phrase means because of when and where you used it. For example – adults may say 'get your shoes' while looking at the child's feet and when they are putting on their coat. The child associates these noises or signs with everything that is happening, being said or signed and quickly goes to get their shoes as they know these events usually mean 'going out'. They are not at this point recognising the 'word' shoe, but responding to 'put on your shoes' or 'time for bed' as a whole. So, the child is using clues based on where and when the phrase is used, rather than on what is said/signed to work out the meaning. At this stage, children are good users of situational or context clues and will often appear to have a better understanding of 'language' than they in fact have – they are strong interpreters of meaning but not of individual words or signs.

Adults, too, often have to be very skilled interpreters of 'context' clues. Early words and signs often contain sound and movement combinations that are easier to produce and so how a child says a 'word' may be very different to how we might say it, for example, 'bibi' for biscuit. Sometimes, however the child might vary the pronunciation and say 'bebe', because of what else he or she is trying to say. Also children rarely use a single word simply to label something – usually they are expressing a much bigger meaning (The Pragmatics 2nd Level tables will also help you explore this further). When a child is using single words and signs, the adult often has to use additional clues to work out meaning. 'Doggy' might mean, for example, 'where's my doggy?', 'that's my doggy', 'give me my doggy'. The meaning of first words and signs, therefore, is dependent on external factors such as context, changes in pitch and loudness or facial expression and body language.

By the end of stage B8, children have learned to use the same sign or word consistently in different contexts, eg 'ball' whether the ball is in the garden, or in a book. Children have to learn the 'boundaries' of words – for examples what we can and cannot call a 'chair' or 'daddy' – and to begin with they often make mistakes as they work this out. We call this 'overextension'; for example the child may use 'cow' for all animals. Sometimes, however they use a word/sign that relates to several items in the same category for one specific item only, for example, the word 'dog' to refer to family dog only (this is 'underextension'). Clearly as children are still 'beginner' language learners and still acquiring the language, there are many gaps in their vocabulary – gradually as they hear and see others using the language they expand their own vocabulary. In the meantime they often use a word we see as inappropriate, but is the best they have got for now. It is our feedback – 'That's not a dog, that's a cat, it is Mrs Jones' black cat' – that helps them in the end discover the word/sign and fill the 'lexical gap'. In the meantime deaf children, like all others, will be creative with the 'words', sounds, gestures and signs that they know to get their meanings across.

Use Table W2 with a key professional (teacher of the deaf and/or speech and language therapist) to record your child's developing range of words/signs, at the end of stage B8 and at any other point that you feel it would help you to understand your child's development.

Section 2: Early words and meanings

Table W2: First words and signs

Learning to mean	Description	What my child does
Noun-like words (label objects and people)	• 'Mama', 'Dada', 'bibi' (biscuit), 'car', 'cow' often still produced in a 'babyish' fashion (eg 'gar' for 'car' or big movements of signs)	
'Verb-like', (words/signs describing an action)	• 'Sit', 'knock knock knock' the signs 'FLY, JUMP, FALL'	
Adjective-like, (words describing a person or object)	• 'Norni' (naughty)	
Adverb-like, (words/signs describing manner or location)	• 'In there', 'slow(ly)'	
Pronoun-like words/signs	• 'Mine'	
Learned phrases or expressions and social greetings	• 'Acky' (yucky), 'oh oh', 'ta', 'thank you', 'hello', 'bye-bye', 'in a minute' 'whassamatter?'	
Responds to more and some words and signs without needing clues from the context	• Starts to move towards the stairs, when you say or sign 'it's time for your bath'	
Combines sign/word with a word or sign (This combination provides more information than the point or the word/sign alone.)	• Points to corridor and signs/says 'Daddy' to indicate that Daddy has left the room	
Uses overextensions and underextensions	• Overextension – child uses family dog's name ('Mabel') to refer to all dogs; child uses 'cow' to refer to all animals • Underextension – child only refers to a favourite toy truck as 'car'; all other cars are 'brrm brrm'	
Words/signs show the effect of 'analogy', ie similarities which they perceive between objects, people or events not immediately obvious to others	• Child refers to all animals with a powerful jaw and sharp teeth (hippos, alligators, tigers etc) as 'lion'	

Stages B9–B11: Vocabulary expansion

Children's vocabulary grows in quantity and variety throughout these stages. Not only do they use a range of grammatical classes (nouns, verbs, adjectives, adverbs), but also a widening range of word categories, eg groups of words/signs to do with clothes, or places to go, or animals. They regularly add new words to these.

Children are constructing 'semantic categories', networks of relationships between words/signs which reflect their understanding of the world. Because their knowledge and experience of the world is very different from adults, the way that children relate words/signs to one another may also be different – for example they may still use a word or phrase in a much broader or narrower way than adults.

Stages B9–B11 mark a period of rapid expansion. When children hear or see a new word or sign, they map a meaning on to it, using their understanding of the world and existing vocabulary. One of the assumptions they make is that the new word or sign refers to something for which they do not yet have a name. For example, if they are playing with a cup (for which they do know the word) and saucer (which they don't yet know), and hear the word 'saucer', they assume the new word refers to the object whose name they don't know. They will often then use the word or copy it, trying it out and sometimes then realising that they have got it wrong. Children are dependent on adult feedback to test out their hypotheses and to correct their false assumptions of how they can use such words. Again this is a normal part of development – and an encouraging one. When deaf children try out new words and signs they may similarly get it wrong, not because they are deaf, but because they are learning in the same way as all children do. Part of learning is having a go and trying things out.

These 'best guesses' that children make about new labels and the objects they refer to are a kind of 'fast mapping'. A clearer understanding of a word requires many opportunities to see and hear it used in a variety of contexts. As this suggests, the amount of language (signed or spoken) to which a child is exposed affects acquisition. The fewer exposures the child has to a word or sign, the longer it takes to gain an understanding of it. Clearly one of the most important ways of supporting a deaf child's language acquisition is to spend time playing everyday games, sharing everyday activities and using everyday language with them.

As they move through stages B9–B11, children's increased understanding of the differences and similarities in the world and the way in which people, objects and events are related, influences the types of words they use and understand and the ways in which they combine them. For example, children's growing understanding of the world and the physical relationships between objects is reflected in their use of prepositions (eg 'in', 'on', 'under', 'off') with words and/or in their use of signs (PERSON, BALL, KNIFE etc) with a movement or location. Similarly they show a developing concept of relative size in their use of adjectives such as 'big' and 'small'. Their ability to categorise and compare is expressed in their use of comparatives and superlatives ('bigger, biggest', 'slower, slowest'). They also begin to describe quantity relationships (for example 'some' or 'all' of their toys).

Children's ability to differentiate in increasingly more detailed ways between objects and people is seen in the use of several different adjectives to describe the same feature – eg instead of just one word to describe softness, the child might now have several – 'furry', 'fuzzy', 'silky', 'smooth'. Similarly they show they are more

aware of abstract states and emotions as they begin to use words to describe them, eg 'tired', 'sad'. Children are now aware of gender and are able to indicate whether someone is a girl or a boy, but there are still inaccuracies here; in particular they may use the wrong pronoun, eg he for she and vice versa. Importantly there is a growing understanding of the relationships between events in time. Adults have talked with them since they were born about what will happen, is happening or has happened. Increasingly children are now able to talk about events in the immediate and remote past ('just now', 'this morning', 'yesterday') and the immediate and remote future ('soon', 'in a while', 'tomorrow').

Use Table W3 with a key professional (teacher of the deaf and/or speech and language therapist) to chart how your child's vocabulary expands, (differentiates and expresses more abstract concepts) during stages B9–B11 or at any other point that you feel it would help you to understand your child's development.

Section 2: Early words and meanings

Table W3: Vocabulary – developing a range of word/sign categories

Learning to mean	Description	What my child does
Understands and uses words and signs from different grammatical categories (nouns, verbs, adjectives, adverbs, pronouns)	• Nouns: 'nose, chair, water' • Verbs: 'hug, eat, walk' • Adjectives: 'dirty, loud, nice' • Adverbs and adverbial phrases: 'quickly, in there' • Pronouns: 'me, mine, his, you'	
Understands and uses signs and words involving a range of semantic categories	For example, s/he has several different words for: • People: 'baby, brother, sister, girl, boy' • Places to go: 'school, zoo, park, farm' • Parts of the face or body: 'arm, chin, eye, foot, leg, lips'	
Understands and uses words and signs to convey understanding of spatial relationships	• 'In the box' • 'On the table' • 'Under the chair'	
Understands and uses words and signs to enquire and negotiate	• 'What', 'where', 'who',' why' • 'Because'	
Understands and uses words and signs that describe relationships in time	• 'Today', 'tomorrow', 'later', 'soon' 'next'	
Understands and uses words and signs to describe physical states and emotions	• 'Sleepy', 'hungry', 'hot', 'sad', 'happy', 'bored'	
Understands and uses words and signs that contrast physical attributes	• 'Small', 'big' • 'Light', 'heavy'	
Understands and uses words and signs that indicate quantity relationships	• eg 'some', 'all', 'any', 'the rest'	
Understands and uses several pronouns	• eg 'I, he, she, we, they'	
Understands and uses comparatives and superlatives	• 'Smaller, smallest' • 'Better, best'	
Understands and uses slang expressions/colloquialisms	• 'High five' 'Give me five'	
Understands and uses function words	eg • conjunctions – 'and', 'but' articles – 'a', 'the'	

Factors that affect development

Sometimes some elements of development in this area may not be proceeding as quickly as we hoped and there is a need to investigate further. In doing so the following factors need to be considered as starting points. In section 5 there are also suggestions as to additional tests/procedures that may help clarify and point the way forward. If you have any doubts and concerns about your child's progress it is important to raise these and discuss them with the professionals supporting you. Often this will lead to a discussion that reassures you because you understand what your child's development means and why the professionals have no concerns and are pleased with progress at this time. At other times it may mean that something needs to be checked out – hearing aid settings, appropriateness of the current approach, a specific aspect of the child's development and so on. Below are some brief notes on areas that can influence any child's development but are particularly important for a deaf child, as they move towards more sophisticated early words and meaning.

Factors that affect development

Joint attention	• Joint attention plays a crucial role in vocabulary development.
• Is joint attention established?	• Children can have difficulties in sharing attention between an object and the person who is 'commenting' on it. Your child may be so focused on the object that they are not able to gain the visual clues from you that they need to supplement the acoustic information.
• Are adults susing sufficient supportive clues	• Remember, try to ensure that you have your child's attention before communicating about an object of common interest. Use the features of child-directed language to help gain your child's attention. Leave spaces and give time for your child to 'look' for themselves and to 'think' about it. (See Parent-child interaction tables for more ideas.)
Environment	
• Is there sufficient input?	• The amount of input affects acquisition – children have to hear or see enough language to 'work it out'; this means we must remember the: – importance of ensuring optimum access to spoken language through well-fitted hearing aids and good listening conditions – importance of providing a good and consistent sign-language model, if you are using sign language with your child.
• Is there a rich, varied input?	• Children require many exposures to a word or sign to develop a consistent and full understanding of its meaning. We do this through: – ensuring a rich language (signed or spoken) environment for the deaf child – ensuring variety in the vocabulary to which the child is exposed, ie don't play safe by only using words that you know your child knows.
• Are adults recasting and responding to meaning?	• Adult feedback is crucial in acquisition of new words – when we 'recast' children's meanings and respond to what they say/sign we influence how they will use such words in the future.
• Are there sufficient opportunities to share experiences?	• We need to ensure frequent opportunities for sharing experiences, play and interaction with an attentive adult.
• Is input enriching the child's vocabulary?	• Input needs to reflect gradations of meaning to enrich a child's vocabulary: – use specific as well as generic terms for attributes and properties – expand on the properties and functions of a word as you play.





When should these materials be used?

For Level 2 checks from B8 onwards or earlier if parents wish or have concerns. The additional tables are to be used as follows: 18 months to 2 years after identification and/or establishing of a support package including the use of hearing aids.

If you are using English with your child:
Use Tables G1 and G1A at the end of B9 to record your child' grammatical development and check its comprehensiveness and appropriateness; – the notes in Table G1 will help you to remember the ways in which you can continue to support your child's development.

Use Tables G1, G2B and G2, at the end of B11 although many practitioners and parents prefer to fill in the Table G2B regularly during stages B10 and B11.

If you are using British Sign Language with your child: Use Table G3 to record your child's grammatical development. The notes in the table will also help you to remember the ways in which you can continue to support your child's development.

How should these tables be used?
These tables help to check that children are continuously developing the ways in which they can express things and that the right things are in place at the right time for grammatical development to proceed smoothly.

The tables/checklists should be used in the following ways:

1. As a summary check with professionals to confirm that your child's development has the breadth of grammar emerging at the time that it should. This means that the first advised check is at the end of stage B9, when we know that children are beginning to use two-word or sign combinations, ie using a simple grammar. It's important to check at that stage that the word types used and the ways in which words/signs are being put together is extensive enough.

Further checks are then suggested at stages B10 and B11. There are different tables for each 'End of stage' check as advised in the main protocol.

2. Once your child is using early word combinations there is nothing to stop you filling in the charts before the end of stage B9 if you wish to, though you will need help from your teacher/speech and language therapist to 'slot' your child's two-word/sign combinations under the right heading. They will be pleased to help you to do so. We have provided examples of grammatical features to help and have also suggested examples of how parents/adults, in what they do, help the child to move on in their grammatical understanding and the ways in which they combine words/signs to express meanings.

Stages B8–B11
Tracking early grammatical development
Your child at these stages begins to join two words together to form 'little sentences'. These emerge at the end of B8 and are used more frequently in B9. We often say these sentences are like telegrams or 'telegraphic' in nature – they do not include all the little words like 'a' and 'is' (called 'functor' words). Similarly children do not always get the word order round the same way that adults do and so may even confuse them, ie in the example 'shoe no' adults might think the child is refusing to wear shoes, when really they mean 'I don't know where my shoes are'. So understanding children is still dependent on the adult's interpretation of the context of what is said or signed, and children, of course, will still use gesture and intonation patterns for emphasis and to help make the meaning more clear.

Part of what children have to learn, whatever the language that they are acquiring, is how words can be put together to express more and more complex meanings and the conventions that others have for doing this. This is called the grammar or 'syntax' of the language. Languages differ not only in their words and sounds but in the grammatical rules that they have. In English for example we can say 'I went shopping' and 'The man went shopping' but we cannot say 'I the man went shopping'; we must change it to 'The man and I went shopping' or 'I went shopping with the man'.

Learning such rules is something children do not do consciously – they pick them up and indeed use them instinctively, although they make many mistakes 'on the way', as they try the rules out. Children discover the rules of the particular language(s) they are learning from the language they see and hear used around them and because adults talk to them in particular ways that enable them to cue into what matters. It is, however, a developing process, with clear stages that children go through. At each stage the child understands and learns to use new elements that will lay the foundation for the next and later stages.

It is important then, when we are looking at how deaf children's language is developing, that we check that the right foundations are in place and that which we would expect to develop, is actually developing at the rate it should be. These checklists/tables enable that 'check' and give everyone confidence that appropriate progress is happening. If you or your teacher of the deaf have any doubts then it is logical to follow this up further.

Since all languages have different grammatical systems it may not have been possible to provide checklists/tables in this protocol for the grammar of the particular language you are using with your child. In the first instance we have provided these for English and for British Sign language.

What are we looking for in these checklists?

It is important to recognise that the comparison we are asking you to make is about:

- whether your child has made progress since the last time you used the protocol and tables
- if that progress is enough.

In exploring this we are expecting:

- a steady progression over time towards longer 'sentences' whether expressed through words or signs.

At stages B8 and B9

We look for breadth in the types of words/signs the child combines. For example – is the child using a range of 'clause structures' – subjects, objects, verbals and so on – even if they can only put two together at a time; do they also talk in little phrases, for example beginning to use simple adjectives with their nouns? (These terms will become clearer as you look at the charts and discuss them with your teacher of the deaf/speech and language therapist or support worker).

At stage B10

Is the child beginning to use three or more signs/words together; are some of the 'little words' the functor words' and word endings beginning to be used in English?

By the end of stage B11

We would expect most, but not all, of the grammar in Tables G2 and G3 to be in place.

What do I do if I am worried about my child's progress?

The tables we have included will, for most families, provide positive evidence of their child's development and should support a confidence that 'what we are doing is working'. Occasionally this is not the case and it is important that the results are shared and responded to and, where necessary, the programme of support for you and your child

adapted so that any difficulties, whether temporary or more pronounced, are quickly explored and catered for.

You must always raise your concerns with the practitioners who support you and if they are not concerned they will use the evidence they have to explain to you why they feel your child is making appropriate progress.

If, however, over a time period your child's progress appears to be significantly slower than what you were led to believe, or their grammatical development is out of step with other things that they are doing, for example, the range of words they are using and the meanings they are trying to express, you may wish to ask for further specific advice so that you understand why this is the case. Clearly children do move forward at different rates; some move steadily through stages, others appear to develop in 'spurts'. The parent interaction table, also included with the Level 2 materials, and the accompanying suggestions, can also be used, just to give you confidence that the ways in which everyone is communicating with your child are the most helpful for this stage of development.

In addition, your teacher of the deaf and/or speech and language therapist can use a number of other tests to look at your childhod's language and use of grammar – these include:

The South Tyneside Assessment of Syntactic Structures

The Reynell Developmental Language Scales (Version 3): NFER Nelson

Section 3: Early grammatical development

G1: (B8–B10) Checklist of early grammatical development – English: summary and suggestions

Use this table from stages B8 and B9 onwards to highlight what your child does and think about its significance

Grammatical development	Description	What does this tell us about my child's progress?	What can we do to help?
Early two-word combinations include: verbs, nouns, question words, determiners, adjectives, prepositions, adverbs	Your child begins to join two words together to form 'little sentences'. These emerge at the end of B8 and are used more frequently in B9. As they are 'telegraphic' in nature, eg 'shoe no', their interpretation relies heavily on context. Your child's use of gesture and intonation patterns for emphasis help the meaning to become clear.	Your child has achieved a significant milestone in language development, the onset of grammar. This means that your child is more communicative and can now express a wider range of meanings.	Talk in short sentences, rather than single words. Rephrase their little sentences by filling in the gaps so that they hear a fully formed adult sentence.
Emergent pronouns: I, me, you	These are used in place of nouns. Early use may contain reversal errors, eg 'me' instead of 'you'	This indicates that your child is becoming attuned to the grammar of the language they are exposed to and is beginning to experiment with it.	Repeat or rephrase their sentences, using the correct pronouns to provide an accurate model for comparison with their own attempt.
Emergent morphology: present continuous -ing plural s past –ed 3rd person s possessive s negative n't elided copula and auxiliary ('m, 's, 're, 've) comparatives –er, est adverbial –ly	Word endings (morphemes) begin to appear, but are inconsistent and early use may be as 'rote forms' rather than being used more productively. Sometimes the wrong word endings are used – which is a perfectly normal part of development. At a slightly later stage, children overgeneralise some morphemes incorrectly, eg goed.	If your child does not begin to use some word endings, it may be because they cannot hear them well enough, so a hearing-aid check may be advisable. Over generalisation of word endings is a positive indication that your child is trying to work out the rules for their use – a process which often involves trial and error.	Repeat or rephrase their sentences, using the correct word endings to provide an accurate model for them to compare with their own attempt. Clarify meanings by asking questions such as: 'did you say doggy or doggies?'
Longer sentences include 3+ elements of clause structure (eg SVO) and expanded phrase structure (eg determiner + adjective + noun)	Sentences are longer, more grammatically correct and less 'telegraphic', ie more of the function words (determiners, auxiliaries etc) are included.	Your child expresses him or herself more clearly through language. This means that you are not so dependent on your prior knowledge or the present context to understand what they mean.	Continue to expand the sentences they offer by rephrasing as above. Expect fuller answers to your questions and ask your child to recount past events.

Section 3: Early grammatical development

Table G1A: Early grammatical development – end of B9 checklist: English

Early two-word combinations include:

Meaning type	Child example	Clause level	Child example	Phrase level	Child example	Word level (morphology)	Child example
Comments Blue ball Like it		SO: (Subject/object) Daddy ball		DN (Determiner + noun) A ball, my dink		– ing (Playing)	
Questions Ball gone? What that?		SC: (Subject complement) Car big; teddy brown; mamma poorly		Adj N (adjective + noun) Big ball, red shoe		Plural markers – s/z/es(iz) (Cars; cats; horses)	
Commands Down now!		SV: (Subject verbal) Daddy jump		Prep N (preposition + noun) In car; in garden		Possessive marker – s, z, es Mummy's; (bag)	
Negatives No want		VC: (Verbal complement) Be hot; Jo durst Jo thirsty		Int N (Intensifier + N) Too big		Past markers – ed (played)	
		AX: (ie adverbial plus any of above) eg SA-muma garden; CA: big there; VA kick garden; OA: ball garden (I threw the ball into……)		VV (verb + verb) Help get; want go V + part (Verb and its particle) Put on (coat)		Other	

Section 3: Early grammatical development

Table G2B: Early grammatical development – end of B11 checklist: English – please attach your examples to this chart

Word combinations include:

Meaning type	Child example	Clause level	Child example	Phrase level	Child example	Word level (morphology)	Child example
Comments I like that one We went to the park yesterday I had a lovely time at the seaside My daddy got a new black car etc		3 and 4 clause element combinations of structures used earlier SVO (A) I threw the ball in garden SVOO I gave mummy ball SVCA Mummy be sad shop (mummy was annoyed at the shops)		3 word or longer combination of earlier 2 element utterance types, eg D adj N: The big car (Determiner + adjective + noun) Prep DN (preposition determiner noun) In the car Pre adj noun Adj adj noun Etc		Attached to nouns – Plural s/z/es (iz) – Possessive s/z	
Questions What has he got? Can I have one? Where is the man go? Are you go see that one?				Auxilary verbs (like will, have; has; be; do; that help other verbs express tense and mood) I will go Mummy be going to shop My do want that		Attached to verbs – ing – 3rd person singular marker (s,z) – ed (past) – en (broken, been)	
Commands Give me that now!! Put it down there				Copula verbs (Particularly the verb 'to be' when it's used without other verbs) It's a car Mummy be tired, leave alone		Attached to nouns/pronouns and other words Contractions (shortened forms) 'aux: he'll, I'm (going), John's got etc 'cop: he's (my brother); it's (yellow)	
				Pronouns I me my you he she it we they		Attached to other words to make adverbs and comparatives -ly: quickly -er: bigger -est: biggest	
				And			
Negatives I not going go there He doesn't like it He haven't got one like that He's got no shoes				Negatives in verb phrases He does not have one I did not go		Abbreviated negatives n't Didn't Can't	
				Negatives in noun phrases No clothes on			

Table G2: Checklist of early grammatical development – English: summary and suggestions

Use this table from stage B11 onwards to highlight what your child does and think about its significance

Grammatical development	Description	What does this tell us about my child's progress?	What can we do to help?
Tag questions, eg isn't it?	These are an alternative form of questions to 'wh' questions (What? Where? Why?), formed at the end of a sentence with the subject and verb inverted.	Use of tag questions provides your child with a different way to ask for confirmation or make comments.	These sorts of questions require you to confirm what your child has expressed. They also provide you with an opportunity to offer and/or ask for more information, eg Child: it's a bus, isn't it? Parent: that's right, it's stopped at the bus stop. What do you think will happen now?
Longer sentences conjoined with 'and'	Several sentences are strung together, joined with 'and', eg 'and we went to the park and we saw some ducks and we played on the slide'.	Your child is now able to retell a series of events, one of the earliest forms of narrative.	Encourage your child to tell you more by prompting 'and then.....' Now is also the time to provide models of more complex sentences, eg including subordinate clauses, to encourage your child to begin to use them.
Subordinate clauses	These are more complex grammatical constructions, where one sentence is embedded in another, eg 'I got a pen *that you can rub out;* we couldn't see *cos it was foggy'*	Your child is now using language to elaborate on basic ideas, explain consequences and provide reasons.	As above, use more complex language yourself and expect more from your child. Provide explanations and ask questions that require more detailed reasoning from your child.
Creative use of word order for emphasis, eg 'it was me that found the frog'	Word order is used more flexibly to create a special effect.	Your child is now able to enjoy the more creative use of language found in favourite books written and oral narratives and poetry.	Expose your child to more varied styles of language, through stories, poetry, plays, etc.

Section 3: Early grammatical development

Table G3: Checklist of early grammatical development in BSL

Use this table from stages B8 and B9 onwards to highlight what your child does and think about its significance

Grammatical development	Description	What does this tell us about my child's progress?	What can we do to help?
Early two-sign combinations include: few verbs, many nouns, general question signs, eg open hands, points, adjectives, handshapes that describe a movement and a location of an entity	Your child begins to join two signs together to form 'little sentences'. These emerge at the end of B8 and are used more frequently in B9. Combined signs are 'telegraphic' in nature, eg 'shoe mummy', their interpretation relies heavily on context. The child's use of gesture and facial expression for emphasis helps the meaning to become clear.	Your child has achieved a significant milestone in language development, the onset of grammar. This means that your child is more communicative and can now express a wider range of meanings.	Sign to the child in clearly articulated sentences, rather than single words. Rephrase their little sentences by filling in the gaps so that they see a fully formed adult sentence.
Emergent pronouns: I, you	These are used in place of nouns. Early use may contain reversal errors, eg 'me' instead of 'you'.	This indicates that your child is becoming attuned to the grammar of the language they are exposed to and are beginning to experiment with it.	Repeat or rephrase their sentences, using the correct pronouns to provide an accurate model for comparison with their own attempt.
Emergent morphology: More handshapes are used to talk about humans, animals and objects and the movement and location of these entities (termed classifier constructions) The first uses of verbs that should move between first and second person, eg YOU-GIVE-ME	Inflections on signs and within classifier constructions (PERSON-JUMP-DOWN) begin to appear but are inconsistent and early use may be as 'rote forms' rather than being used more productively. There may also be instances where the wrong handshapes or inflection is used – which is a perfectly normal part of development. At a slightly later stage, children MAY overgeneralise the use of some morphemes incorrectly, eg repeating the sign for book several times rather than using a number sign or classifier sign.	If your child does not begin to use some sign morphology, it may be because there is limited exposure to good models of fluent BSL in the home. It's important that your child is exposed to fluent adult and child signing from an early age. Overgeneralisation of grammar is a positive indication that your child is trying to work out the rules for their use – a process which often involves trial and error.	Repeat or rephrase their sentences, using the correct sign inflections to provide an accurate model for comparison with their own attempt. This may mean involving other deaf adults in everyday activities or parents attending as many BSL classes for adults as possible. Clarify meanings by asking questions such as: 'did you say give you or give me?'
Longer sentences include 3+ elements of clause structure, eg SVO and expanded phrase structure, eg noun + point + adjective ('a big book')	Sentences are longer, more grammatically correct and facial expression to mark negations and questions is appearing coupled with signs.	Your child expresses him or herself more clearly through language. This means that you are not so dependent on prior knowledge or the present context to understand what they mean.	Continue to expand the sentences they offer by rephrasing as above. Expect fuller answers to your questions and ask your child to recount past events.
More use of all the question signs WHO, WHAT, WHY? YES/NO questions, eg BIKE MINE? 'Is this my bike?' These questions are formed through raised eye-brows face in the last part of the sentence	These are an alternative form of questions to the general 'wh' question sign your child might have started to use. These signs should fall at the end of a sentence with the subject and verb inverted.	Use of different questions provides the child with a different way to ask for confirmation or make comments.	YES/NO questions require you to confirm what your child has expressed. They also provide you with an opportunity to offer and/or ask for more information, eg Child: BIKE MINE? Parent: RIGHT, BIKE YOURS. POINT BIKE WHO? (That's right it's your bike and whose is that other bike?)

Table G3: Checklist of early grammatical development in BSL continued

Grammatical development	Description	What does this tell us about my child's progress?	What can we do to help?
Longer sentences with use of facial expression and head movements to mark clauses	Several sentences are strung together and joined through facial expressions marking a continuous or different topic, eg BOOK READ GO LIBRARY ('I read the book and go to the library' – facial expression marks this as the same topic)	Your child is now able to retell a series of events, one of the earliest forms of narrative.	Encourage your child to tell you more by prompting 'and then.....' Now is also the time to provide or ensure that your child experiences models of more complex sentences, eg including subordinate clauses, and also encourage your child to begin to use them.
Subordinate clauses	These are more complex grammatical constructions, where one sentence is embedded in another, eg 'I got a pen *that you can rub out;* we couldn't see *cos it was foggy'*	Your child is now using language to elaborate on basic ideas, explain consequences and provide reasons.	As above, use more complex language or ensure that your child is exposed to fluent adult BSL. Expect more from your child. Provide explanations and ask questions that require more detailed reasoning from your child.
Creative use of sign order for emphasis, eg FROG FOUND (TOPIC MARKED) BOY 'as for the frog it was found by the boy'	Word order is used more flexibly to create a special effect.	Your child is now able to enjoy the more creative use of language found in favourite stories, narratives and poetry.	Expose your child to more varied styles of language, through stories and extended uses of BSL.





When should these materials be used?

These materials are available for use by families and professionals at any point following their child's identification. The materials can be used:

For Level 2 checks (for interaction from B5 onwards) or at any point that parents have concerns or need reassurance that the strategies that they are using are appropriate.

Use Table PC1: between stages B1–B5;
during the first year after identification.
Use Table PC2: between stages B6–B9;
during the second year after identification.
Use Table PC3: between stages B10–B11;
during the third year after identification.

How to use these materials

The materials are designed to support families and professionals in their discussions about how to facilitate their deaf child's development. They include examples of the sorts of things that families do that are known to support communicative development, interaction and play. They can be used simply for discussion or as a check to exemplify to parents/carers why what they are doing helps. Not all the 'ways of interacting' will be automatically used by all parents; practitioners should be careful to help families to focus on what they actually do, that helps, rather than what is not ticked off. Cultural diversity and families' own ways of interacting will also influence advice and support given. At each stage of a child's development adults change slightly the ways in which they communicate with them. They have different expectations as to what the child should do, how they should behave and respond. Instinctively they provide more 'challenge' for the child and lay the foundations for what their child will go on to do next.

What are we looking for in these materials?

1. Is there enough communication going on? These behaviours and adaptations happen as children and their parents play and live together. We are not suggesting that there should be specially 'engineered' situations or play, rather that the practitioners can use naturally occurring examples to illustrate to parents how what they are doing helps. This should then give parents and carers confidence that they are providing for their deaf child's needs.

2. As the child gets older do parents/carers adjust their ways of communicating with the child? Are adaptations appropriate to stage? For example are features of child-directed speech/language being used?

3. Is the child becoming an effective conversationalist?

This is a developmental process and the features are identified in the main protocol; the adult behaviours identified in the Level 2 checks help to support the child taking turns, model how to take turns, and how to listen and respond. They clearly support the child's growing conversational competence at each stage. If a child is not moving forward in their engagement with what others have to say, then it is important to explore the reasons why. Some possible reasons are explored and suggested procedures that might help are included here and in other Level 2 materials.

Section 4: Parent-child interaction

Table PC1: Fostering effective communication – stages B1–B5

Behaviours/strategies that foster effective communication Parent/carer/adult:	How this helps your baby/child
Shows enjoyment when interacting with the baby/child and sustains periods of interaction	This shows your baby/child that you enjoy his or her company, models 'conversation' and encourages them to be interested in others.
Seeks and encourages eye contact with the baby/child	When you have eye contact with your child you know that they are attending to you, watching all those non-verbal cues, facial expressions and lip patterns that help them to understand something of your communication. You can work out whether or not they have got your message and how they feel about a situation.
Shows that they enjoy eye contact by responding positively, eg smiling, and delights in baby's interest in eye contact games, (eg 'peek-a-boo,' and 'I'm coming to tickle you……' games)	Knows how much you enjoy sharing in their world, and then will want to give eye contact again.
Engages baby/child in vocal play or hand babbling games	By imitating the sounds and/or handshapes your child makes you are encouraging their continued use of these; you are also modelling the importance of imitation as a technique for language development.
Uses lively facial expressions with baby/child	Captures attention and shows you share their enjoyment.
Experiments with different ways of using voice when talking to baby/child	Engages and holds the baby's attention.
Uses 'baby talk or sign' and appropriate 'acoustic/manual highlighting', ie stresses the words that are important	Gains and maintains your child's attention. Produces relatively clear output for your child to listen to. Highlights the words you want them to attend to. Breaks language into meaningful bits.
Holds baby/child and rocks to rhythm of the music or song	The child is learning that sounds and movement often go together, and by keeping the rhythm with your body you are drawing attention to the different qualities in music, speech and body movements such as long vs short, high vs low and soft vs loud sounds/movements.
Responds consistently to any vocalisation either nonverbally or by 'talking', eg a smile, touching...	You are showing that you value it. This encourages more vocalisations from your child and sets up 'turn-taking'.
Responds to any gestures and facial expressions	You are showing that you value it. This encourages more gestures and 'turns' within a conversation.
Paces own interactions to those of baby/child, eg waits and watches. Gives the baby time, smiles encouragement, before modelling what the child might be thinking or intending to communicate	Leaves baby/child plenty of space and encouragement to respond.
Is aware of 'earshot/eyeshot', ie talks within range of child's ear and/or signs within range of child's vision	Communicating within your child's effective communicative distance for sound and vision gains and maintains their attention.

Section 4: Parent-child interaction

Table PC1: Fostering effective communication – stages B1–B5

Behaviours/strategies that foster effective communication Parent/carer/adult:	How this helps your baby/child
Uses rhymes and song	Engages and sustains children's attention, incorporates changes in pitch, rhythm and intensity; these can be gentle and comforting or lively and humorous; they encourage familiarity, anticipation and eventually participation.
Follows baby/child's gaze and eye contact, ie what they are attending to and what they want to communicate about	When you talk/sign about this your child will know what the words/signs refer to. This is 'joint attention'.
Expects baby/child to take turns without adding undue pressure, eg leaving a pause after your own turns, perhaps accompanied by an expectant look	Gives your child time to process what you have said/signed and time to prepare a response. You are showing that participation in the 'conversation' is valued. Your child will be encouraged and eventually attempt to take up his/her turn.
Provides and facilities play activities	Gives your baby/child pleasure and provides opportunities for communication.
Comments on baby/child's interests, ie takes child's lead. Talks about whatever baby is enjoying and shares it, eg it could be making bubbles 'You liked that didn't you. Let's blow them again….blow ….blow', the 'fast and slow' of a buggy ride, the 'up, up, stop!' of the car park stairs	Helps your child relate talk to object/task – they realise that communication is about things that interest them and are motivated to understand/respond. Helps them know what the words relate to and so eventually work out what they mean. Lets your child know, very subtly, that they too can initiate interaction.
Avoids interrupting baby/child's communicative attempts	Models that it's important that each person has his or her own turn in a conversation and that you wait till someone is finished before you take your turn.
Observes child's vocalisations and gestures and interprets what they might mean, eg she makes repeated sounds or gestures toward her cup, you could respond: 'Oh, you'd like your cup. Do you want a drink?'	Encourages further communicative attempts by recognising and responding appropriately. Gives your child the opportunity of taking the next turn in the 'conversation'. Your child attends to words/signs in phrases and sentences relevant to the here and now. This gives them the opportunity to internalise these words/signs and work out what they mean. When you 'talk' about what your child is doing while they are doing it you give them the language they need in order to express their thoughts.
Imitates the baby/child's spontaneous gestures, body movements and vocalisations/vocal play	Acknowledges the importance of your child's contributions and encourages them to make more. Models the importance of imitation in learning how to talk/sign.

Section 4: Parent-child interaction

Table PC1: Fostering effective communication – stages B1–B5

Behaviours/strategies that foster effective communication Parent/carer/adult:	How this helps your baby/child
Uses routines and language associated with daily routines, familiar toys + books, rhymes, and 'games' you play	Allows your child to anticipate what is coming next and feel more confident about taking a turn. Routines follow a set pattern and involve the same sort of language over and over. Understanding is supported by the use of similar language in the same situation. As your child's understanding develops 'varying' the routine in subtle ways enables new ways of doing the same things to be shared. Extends their concentration, the length of social interaction and allows them even more exposure to meaningful language. Children love familiar books and stories and will play favourite games for long periods of time.
Gains the child's attention and sustains it over several turns	Builds expectation that conversations have several turns and that you have to attend to the next turn of the adult to continue to be part of it.
Uses additional clues, gestural or vocal to support understanding, for example says/signs, 'Hop, hop hop, bunny'. Your child looks back at you, but doesn't move bunny; adult adds on clues, eg says/signs 'Hop, hop, hop, bunny' and gently moves hand or bunny to the same rhythm	Helps clarify meaning and sustain interaction.
Extends understanding of symbolic vocalisations, proto-words and signs to other contexts, for example, child demonstrates understanding of 'brmm' as the noise made by her toy car; adult relates 'brmm' to other toy vehicles, to vehicles in books or out on the road; adult helps child to associate and then replace 'brmm with 'car', eg 'brmm goes the car', 'Where's your car?'	Helps your child expand their understanding of the sign/word.
Models child's spontaneous early words and signs within a phrase, for example to check meaning and/or show interest and pleasure in the child's communication	Gives positive feedback. Modelling and recasting a more sophisticated response (the correct pronunciation, a phrase or extended meaning), enables your child to compare this with their own attempt, ie how they can make themselves even more communicatively effective, what to attend to and move onto next.

Table PC2: Fostering effective communication – stages B6–B9

Behaviours/strategies that foster effective communication Parent/carer/adult:	How this helps your baby/child
Engages child in playful vocal games	Provides great opportunities for fun and laughter while also giving opportunities to introduce new patterns and play that extend attending, understanding and eventually, production.
Uses rhymes and song to engage and sustain child's attention	Helps your child to recognise and discriminate between songs, giving them the confidence to try to join in. Rhymes, songs and finger games are easy to produce in any location at a moments notice, yet they have so much potential for repetition of language, and vocal/sign play.
Draws child's attention to other people's conversations and questions and helps to focus on one person talking/signing at a time	Draws your child's attention to the fact that other people are talking/taking their turn. Helps them to begin to appreciate the 'rules'. Children learn a tremendous amount from overhearing/seeing other people's conversations. They must also learn that a basic rule of conversation is to give someone else a turn to speak. These are sophisticated skills.
Recognises and adapts to child's focus of attention; for example, describes what the child is doing while watching her activities: 'You're playing with dough' 'You like the red dough', or as they struggle to undo a coat, 'You want your coat off….can mummy help you?', 'Take my coat off'.	Reinforces their communicative attempts. It lets them know that you are there to share in their fun (though not dominate it). Encourages them to continue making contributions, initiate communication and builds self-esteem. You provide your child with the language they would have used to 'say' it for themselves, if they could have, at the time when they understand and need it.
Attends to the child's body language and facial expressions	Provides them with the language they require to express their needs and their intentions at that time.
Recasts the single words/signs of the child into phrases or complete sentences, eg 'Wash dolly with the soap', 'The wheel goes "round and round"'	Gives positive feedback. By modelling a more sophisticated response (the correct pronunciation, a phrase or extended meaning), you are enabling your child to compare this with their own attempt. Shows your child how they can make themselves even more communicatively effective.
Repeats and reinforces words/signs and phrases often and appropriately through daily activities, play, books, songs and rhymes, for example, uses routine chores and games such as doing the washing, getting dressed, meal time and bed time to repeat and reinforce language 'Put on your sock', 'Where's the other sock?' 'There's a sock with the spoons!!!' 'In goes the blue sock' etc	Gives the child many experiences of the same language patterns, in contexts in which they are never bored. Ensures that the child hears, sees and uses language in activities that would occur anyway – meal times, changing nappies, going out, playing in the park, indoor play times, bed times and bath times. Daily activities and routines provide wonderful opportunities to use similar language over and over again. Social routines (see the play strand of the protocol) give your child a framework for anticipating what is to come, adding their comment and knowing what they can do, say or sign next.
Has a good knowledge of what child understands and uses this to extend understanding and what the child says; for example, if the child understands 'up', says 'Do you want to come up?'; encourages/expects/ waits for child to try and say/sign 'up'	Frames simple questions in a way that your baby can answer in words/signs. Models how to question.

Table PC2: Fostering effective communication – stages B6–B9

Behaviours/strategies that foster effective communication Parent/carer/adult:	How this helps your baby/child
Gives the child choices – for example, 'Would you like a dress or leggings today?' Do you want to go in the buggy or on the bike?' etc	Encourages a verbal/signed response and shows children how they can use language to explain their wants and needs; this is part of the 'power' of language that all children need to discover.
Recognises that a child who has single words/signs may use eye contact to make sure their message has been understood, and to check your reaction/response	Helps the child to know whether their message is received or they have to try again if you have misunderstood. It's part of the feedback 'cycle' in communication that we use to monitor the flow of conversations.
Expects the child to take turns but without adding undue pressure; for example, helps the child to fill a turn with one or two words/signs, by leaving a gap or because their own comment or question is accompanied by rising intonation/expectant look, eg if the child has a favourite rhyme, miss out the last word/action in the line or phrase and expect the child to fill it in	Supports turn-taking and language structure. It builds suspense and anticipation. It scaffolds your child's use of known vocabulary.
Continues to match the pace of own interactions to those of child, leaving child plenty of space and encouragement to respond	Gives your child time to process your communication and their ideas for a response. Wait for them, do not bombard them with the next description or question, but wait and watch your child think.
Avoids interrupting communicative attempts	Models that it's important that each person has their own turn in a conversation and that you wait for someone to finish before you take a turn yourself.
Continues to use characteristics of 'baby talk/sign' and to use acoustic/manual highlighting	Emphasises key new words or phrases to help draw your child's attention to the important features of your communication. It produces relatively clear output for your child to listen/attend to and breaks language into meaningful bits.
Describes own activities as you do them with the child, for example, 'I need to write our shopping list. Do we need more sugar? Let's look in the cupboard for sugar. Oh, we'd better write down sugar…'	Encourages the child to follow the attention of the adult for a while. Your child will be expected to share the control in conversations as they get older. This is an important first step.
Recognises child's achievements and expects that they can do even more; realises misunderstandings can have positive benefits	Leads them to gradually take on more responsibility for ensuring others understand what they have to say. Prepares them for when they need to communicate with people who do not know them as well as you. We need to model patient listening during these times and ensure that they understand that it's okay to have to repeat and clarify – we all do it.

Table PC2: Fostering effective communication – stages B6–B9

Behaviours/strategies that foster effective communication Parent/carer/adult:	How this helps your baby/child
Uses a broad base of language and vocabulary constantly expanding the language and the topics in daily routines and play, for example, the child says/signs 'juice', the adult models 'more juice… you'd like more juice?', uses colloquialisms, 'Is teddy having a paddy?' and makes sentences more complicated, 'It will be bed time when Daddy's finished that story'	Extends the child's understanding of familiar expressions and common phrases, to include teasing, colloquialisms. If you are constantly expanding their understanding of language you are broadening their base for using spoken/signed language.
Adjusts the level of language input to challenge the child and uses phrases or complete sentences, for example, the child regularly uses 'round, round' to refer to a toy, and so you use the proper name for the toy, with a slight emphasis, alongside the child's term, eg 'You'd like the top, the top that goes round and round?' 'Where is the top?'	Ensures that children do not remain at an earlier stage of development because adults have not used labels appropriately. It extends the vocabulary understood and used by your child.
Uses elaboration/rephrasing, for example, new vocabulary may be met with a blank look, but gain clarity from a further phrase that either illustrates the meaning or replaces the new word with a familiar term	Extends the range of vocabulary and grammatical structures that children hear/see, but in relation to the meanings they themselves have used or something that you are doing together – so they understand the meaning.
Knows the vocabulary the child understands, and encourages them to use it by framing the child's turn-taking with comments, questions and expectant pauses, for example, 'Where's teddy?' encourages an approximation of 'there', to which you might reply 'Oh, he's there, on your bed. Is he sleepy?'……. 'Shhh'/finger to lip. 'Shh, he's going to sleep. Say, 'Night-night teddy'?' …… 'Night-night'. 'Night-night teddy, go to sleep'	Frames your child's response and keeps them in the 'conversation'.
Is not too ready to anticipate the child's needs but waits for an attempt by the child to communicate them in word/sign, for example, forgets to put a spoon out with bowl of food, notices, but instead of jumping up to get one waits for the child to ask for one	Prompts children to communicate for themselves and use their language to do so. We can be too good at understanding our children's needs. Children need reasons for using language and for making their meanings explicit.
Extends child's language to other contexts, for example conversation and experiences at the play park are reinforced at bed time by choosing a book that has pictures of other children at the park; an 'experience' book with 'photos' of your child playing at the park enable the language and experience to be revisited	Supports the child's verbal memory – the way they draw on what they have experienced and the language that surrounds it. It also ensures they have opportunities to talk about things that they have done and will do. This is a very important part of being able to tell things to people, share information, talk about the past and future and ensures that in your talk with them they have lots of opportunity to have models of how to do this.

Table PC3: Fostering effective communication – stages B10–B11

Behaviours/strategies that foster effective communication Parent/carer/adult:	How this helps your baby/child
Feels comfortable just sitting with her child, without needing to 'talk, talk, talk'	Models turn-taking, contributing through listening/watching as well as talking/signing. Conversation is also about being prepared to listen. We do not wish to model constant chatter or domination of the conversation.
Expands the child's language to more specific components, for example, if the child knows body parts such as eyes and ears and mouth and nose, introduces finer discriminations such as eyebrows, cheek, chin, dimples; words/signs/concepts such as 'in the middle' 'almost' are used to extend and clarify further	Enables children to pay attention to detail themselves, at a time when they are curious about the world and notice differences – things are not just 'up' but 'part way there' – colours are not simply red and blue. Expands the child's understanding and makes conversations less ambiguous, through giving more detailed and precise language.
Encourages the child to request repetition and clarification, eg 'Do you want me to repeat that?' 'Should you get your shoes or get your brush?'……'I think you need your brush. Your hair needs a brush'. 'Did you say could or couldn't?' Encourages the child to respond when other people do not understand them: 'What do you mean? Do you mean a or b?'	Helps the child to take on responsibility for their own understanding. Ensures that they have an expectation that what mummy, daddy or others have to say should make sense. Prepares them for the sort of learning they will do in nursery or school where if they don't understand they are expected to ask. By modelling this you help your child to learn that it's important to clarify the meanings of others and how to go about it. Your child will need to be confident to do this with other people when you aren't there.
Repeats and reinforces new vocabulary and phrases through a variety of daily activities, play, books, songs and rhymes	Ensures that children's foundation experiences for learning and language are extensive and solid. For your child to become an effective communicator you need to provide a broad range of experiences and extend these into a wide range of contexts.
Has established good patterns of eye contact with the child and expects child to attend, listen and watch	Makes clear to children that they are expected to attend and think about what is communicated to them and to check others are attending to them too – and that in conversations this is only polite! Helps your child become a truly communicative partner who uses eye contact to signal intent, searches and asks for additional cues when needed, indicates they want a response.
Observes and attends to child's interests and begins to expect the child to follow adult interest too	Provides endless topics for the communicative exchanges that follow. Your child has now learnt the basics of conversation in turn-taking; making a contribution and allowing their partner to make a contribution. They need also to follow the adult's meaning and attend to conversation around this. Control in conversations is thus shared. Prepares your child for entering an educational placement where they will need to attend to the adult and their choice of 'topic'.
Uses a variety of techniques to sustain communicative interactions with child, eg adult use of imitation, anticipation, suspense, surprise	Extends the amount of time a child will participate in conversation with others and their interest in what others have to say/sign. We call this the number of turns they can take in an interaction.

Table PC3: Fostering effective communication – stages B10–B11

Behaviours/strategies that foster effective communication Parent/carer/adult:	How this helps your baby/child
Expands language of daily routines and play. For example, if the child understands a phrase, varies the order of the routine, makes mistakes or stops using some cues that go with it, such as moving or looking towards the subject	Ensures the language used in daily routines becomes increasingly complex. Supports the child's own understanding of complex language as well as its use. 'Scaffolds' the development of your child's language structure, intent and vocabulary.
Uses language a little beyond child's current level of comprehension, for example, tries a phrase a little more advanced than current understanding, without using additional cues, but within a familiar context. Gives the child time to think, then uses the phrase again with a visual cue; uses the phrase again soon afterwards	Lays down the foundations for the next stages of development, and ensures that the child is challenged to think. Your child's progress will benefit from you regularly upping your expectations. Your own language must contain more complex grammar and vocabulary than the child's own if they are to move on. Increases the opportunity for children to attach meaning to unfamiliar words, phrases and structures.
Continues to acknowledge, model and expand child's language using elaboration and rephrasing – sometimes to clarify the meaning, for example, 'Trike out' becomes 'You'd like your trike out'. 'Yes, I can help you get your trike out'	Your acknowledgement of your child's communication is encouragement in itself, is strengthened when you demonstrate you know exactly what they meant, through 'recasting'.
Uses specific rather than general terms, for example says/signs the equivalent of 'Put my car keys in my bag please' rather than 'put them over there please'	Expands the range of your child's vocabulary encouraging your child to use specific vocabulary.
Lets the child know when they cannot hear, talk or attend to signs, because of environment or distance and expects child to take action to overcome this	Tells your child that there are times when people need to be proactive in helping themselves in communicative situations.
Uses other adults or siblings to take their turn in a game first, thus modelling the desired behaviour from child; for example, asks 'Who has the blue team?' – the sibling responds, 'I have the blues, they're mine', asks the deaf child, 'Who has the red team?' they may well indicate – 'I've got red' or 'they're mine' – or adult will model further	Allows and encourages children to learn from their observations of what others do, and doesn't put them on the spot. Times with other family members such as meal times and outings are ideal opportunities to model uses of language, social interaction and expectations.
Extends the child's understanding to include problem solving, teasing, colloquialisms etc	Supports children developing a broad range of language uses and curiosity about the world. Enables them to understand that we all have to 'work things out'. Your child will need to experience other people using language in context to reason, describe etc.
Continues to expect the child to take a turn in social communication and begin to contribute their own information, For example uses comments, comments followed by questions, expectant waiting, a look, a nod or a gesture, to cue the child in to the need to fill a 'turn'; if the child looks blank rephrases the question; for example: 'What did you do at nursery today?' may become 'What did you paint today?' or 'Where did you play today?'	Prepares children for their role in giving explanations and providing information to others. Helps them to realise that they have experiences they can talk about which others are interested in. Gives them the confidence to do this, providing everyone listens and attends to them too.
Continues to extend child's language to other contexts, often in more complex language, including talking often about the child's experiences in the past, future	Helps the child expand their understanding of vocabulary, grammar and how language works and how it can be used to help them understand their world.

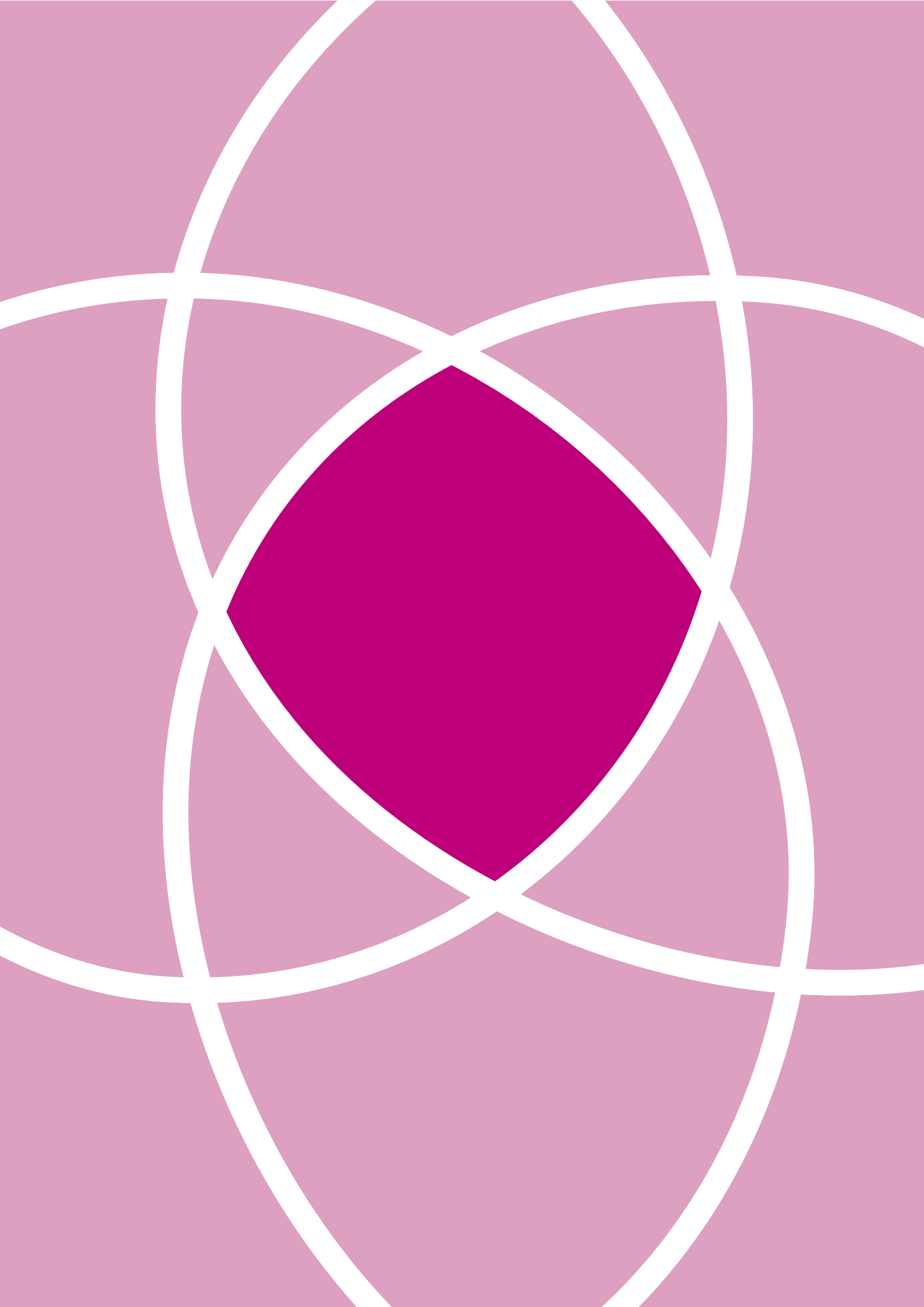


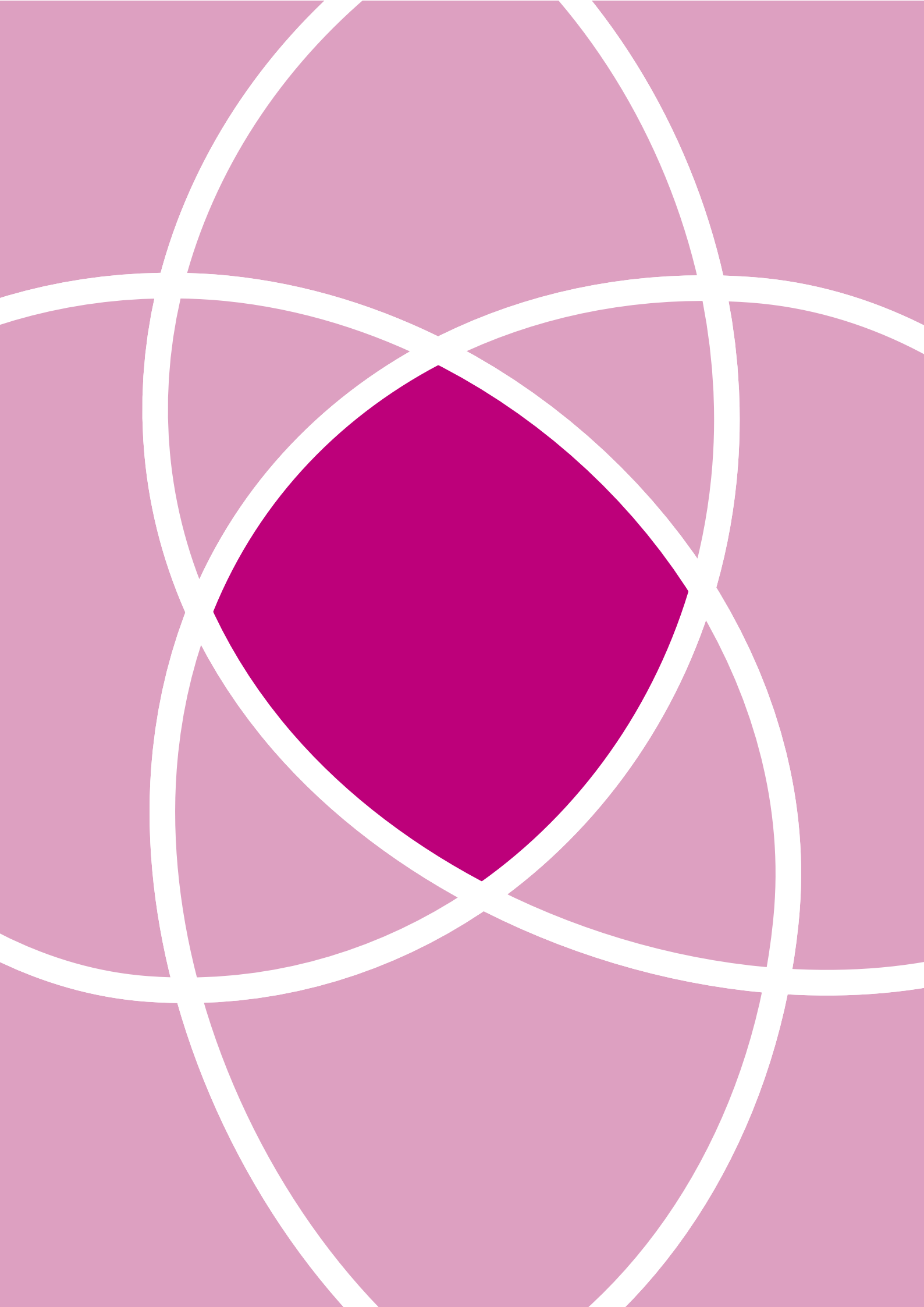


And …….. should you need to investigate further, in addition to procedures mentioned in the previous sections, the following may be helpful, but is in no way a comprehensive list of available resources.

Diagnostic tools

Tool	Age–range	Aspects covered	Scoring system
MacArthur Communicative Development Inventory	Words and gestures: 8–16 months	Vocabulary comprehension and production; use of communicative gesture	Percentile scores
MacArthur Communicative Development Inventory	Words and sentences: 16–30 months	Vocabulary production; grammatical development	Percentile scores
Rossetti Infant-Toddler Language Scale	0–36 months	Interaction-attachment: child's awareness of and response to cues in interaction Pragmatics – child's awareness of social rules of interaction Gesture – child's use of communicative and intentional gesture Play-development of symbolic awareness Language comprehension – (of spoken language – difficult to extend to sign language) Language expression	Criterion-referenced
The Pragmatics Profile of Everyday Communication Skills in Children	Pre-school and school-age version	Children's communication in everyday situations, looking at the development of communicative functions and the child's response to communication	Descriptive profile of child's skills
Preschool Language Scales-3 PLS-3 (UK)	0–83 months	Auditory comprehension (attention, semantics, structure, thinking skills) expressive communication (vocal development, social communication, semantics, structure, thinking skills)	Raw scores and norm-referenced scores
Developing Language: A Metacognitive Approach to Teaching Grammar and Meaning	Manual 1: From before 1st words to word combinations Manual 2: Grammatical elements, sentence level and beyond	Child's comprehension and use of single words, word combinations, grammatical markers, sentence combinations, telling/asking and active/passive constructions	Records child's progress across stages of semantic and grammatical development





When should you use these materials?

1. At any point when you have a concern
A first step in looking, before you use the listening and vocalisation tables is to use the detailed developmental profile chart for attending, listening and vocalisation which allows you to shade in listening, vocalisation and attending separately.

Shade in the stage for each area where the majority of indicators have 'definitely' been achieved, so that you can compare development in all three areas. For some deaf children this may mean all three areas are shaded in at the same level. However, for some, 'attending' may be stronger than 'listening' and 'vocalisation' and if so, you will definitely want to explore further with the tables identified below.

Level 2 checks are built into the monitoring protocol at the end of stages B5, B8 and B11.

Use Tables LV1, LV2 and LV3 at the end of B5 (the first year after fitting hearing aids) or earlier if the family or professionals have concerns or wish to monitor more continuously.

Use Tables L1, L2 and L3 at the end of B8 (21 months after fitting hearing aids) or on an ongoing basis during stages B6–B8.

Use Tables L4 and L5 on an ongoing basis from B5–B11 or before if there are concerns.

Tables LP1 (B1–B5), LP2 (B6–B9) and LP3 (B10–B11) can be used when the child is at or approaching the stages they cover.

Many professionals and parents will wish to use the checks on an ongoing basis in the earliest months to inform hearing aid fitting and to help gather the evidence as to the effectiveness of the child's amplification package.

How you should use these materials
The Level 2 Attending, listening and vocalisation materials have been designed to help families and professionals compile their evidence about:

- the effectiveness of the amplification that has been provided for the child
- the use their child is beginning to make of this as they learn to listen and to attend.

As part of this it is important to track the sounds that the child is aware of and is interested in – both speech sounds and others – and the sounds the child makes.

The tables will help you to do this with your teacher of the deaf and other key professionals. The discussion we have provided here, and that you have with the professionals that support you should help you understand why it is important to do this. It also supports expectations that the child will, and should, use their remaining hearing, in order to listen and learn.

Introduction
The development of listening and vocalisation relies on being able to hear the sounds around you, hear the people talking to you, and to each other, the daily sounds around the house, at the playgroup, in the shops and so on. For the majority of children with a hearing loss, access to sound will be through using hearing aids. If using amplification (using hearing aids) is not your chosen or preferred option at the moment, then the development of sounds is unlikely to follow the typical pattern described in the *Monitoring protocol for deaf babies and children*, unless you use sign and speech together.

Children will develop a range of sounds over time. This will depend on how old they are, how much they can hear and how much they learn to listen. All children vary as to when they start to use different sounds. This is quite normal and is nothing to worry about. Frequent colds, chest infections and illness can also temporarily slow down progress. Sounds will emerge as your child develops. Looking at the pattern of development helps to provide evidence that hearing aids are working well and that progress is as we would expect.

Learning to listen is an important skill for your deaf child and will depend on a number of things:

- how deaf your child is
- when the deafness was identified
- when hearing aids were established and used for the child's waking hours
- how well hearing aids are working
- what your child listens to – is it interesting enough and meaningful enough?

The people around your child are the most important sound makers. All children love being spoken to and your deaf child is no different. Your child gets lots from seeing your face, watching your face and other movements and simply being involved. Many deaf children have lots of useful hearing and with hearing aids will be able to hear speech more clearly. For children who have less hearing, how much they can hear and how well they learn to listen will depend on the type of hearing aids, how well they work and what there is to listen to around the child. If deafness is identified very early and hearing aids are fitted soon after, then the baby/child has the chance of hearing sounds around them and will gradually learn to discriminate, recognise and listen to the world around them. How much they hear will depend on how deaf they are. The exact details of this are not always easy to find out in the first months of life.

How much hearing does my child have and how useful is it to him or her?

Hearing tests measure two aspects of hearing; the frequency (pitch) and the intensity (loudness). This information helps us to understand which sounds a child can hear and which may be more difficult. By looking at your child's hearing test results and asking for an explanation of them again if necessary, you can start to build a picture up of how well your child is learning to listen and how well the hearing aids are working.

Your child will have had at least three types of hearing test:

1. Oto-acoustic emissions (OAEs)
2. Acoustic impedance measurements
3. Auditory brainstem response (ABR)

These tests tell us if your baby has a hearing loss and what type of hearing loss. They do not tell us exactly how deaf your child is, but do give an indication of this. It is not until your child is about six months old that another test can be used. Visual Reinforcement Audiometry (VRA) is used once your child is mature enough. This form of test allows the audiologist to get very detailed information about the hearing loss your child has in each ear. However, prior to this, with your help, a picture of your child's hearing/deafness is built up over the first six months. The noises your child makes as they play with you provide us with information about their developing sound system and listening skills. These help to give us a 'window on' or a way of looking at the hearing aid fitting and ensure it is as sensitive as possible. These fittings may change over time – either in terms of the particular hearing aid, as we gain more information or a different hearing aid becomes available; or because the child needs a different setting on the hearing aid they already have for a short time or longer term. For example, children often get colds and this may cause a temporary drop in hearing levels. For this period the hearing aids may need to be adjusted to ensure that they are loud enough. Ask your teacher of the deaf or audiologist about how to change the volume setting. With digital signal processing hearing aids there may not be a volume control and you may need to switch to a different programme. This will be explained to you, but always ask if you are unsure. Similarly for those children who have a cochlear implant there will be a process of 'tuning' and 'adapting'. Parental input as to how this is

working and what the child is responding to is critical to this.

Vocalisation

Languages are made up of different sounds and the ways we can put these together differ according to which language we are using. In trying to analyse how a child's vocalisations are developed, we can look at them in a number of ways. We can, for example, look at the different sounds that there are in language and then the way these can change when they are put together in speech.

Babies and young children, whether they have a hearing loss or not, use some sounds before others. Many sounds are not pronounced accurately until later and we try, with deaf children, to compare their vocalisations with what is known about the development of sounds by any child. However, some factors can interfere with a deaf child's development of the sound system, so that the typical pattern of development becomes even further delayed. Clearly we want to ensure that this happens as little as possible.

A deaf child's development of speech sounds may be further delayed by a number of factors including: the size of the hearing loss, colds and illness, lack of amplification, inappropriate amplification, poorly fitting earmoulds and hearing aids that do not work properly. By looking at the pattern of development of your child's sound system it is possible to gain an idea of:

- how well the aids/implant are working
- what other factors may or may not be interfering
- if your child has 'found' their own voice and enjoys 'chatting' to him or herself and
- if any other action needs to be taken to support development in this area.

Using the listening and vocalisation tables

The tables that follow show the basic sounds of English. You will notice that there are more sounds than we have in the alphabet. This is because phonetic symbols are used. An example of each sound is given after the symbol. You will also notice that for some sounds the symbols are represented by a symbol that is different to the letters we use when reading and writing English. Ask your early support worker/teacher of the deaf to help you with this.

Children use a range of sounds as they babble, so the first tables (Tables LV1, LV2, LV3) allow you to jot down any sounds you hear your child making in these early stages. Once your child moves to words you can use the tables marked 'WORDS' (Tables L1, L2 and L3) and note the sounds that are now used. You can highlight the sounds that you have heard your child making, using a different colour for each time-period you add new sounds, or 'date' each sound as you hear it – you will be able to see how the sound system is developing in this way.

The words next to each symbol have an underlined section to give you an example of what each sound sounds like when an adult says it, eg the 'm' sound in 'man'. Children are likely to be making a range of sounds in their early development including sounds such as tuts, clicks, kisses, raspberries, gurgling, car noises (brmm-brmm) and trilling, which you may also want to note.

Filling in the tables

Listen to the different sounds your child is making.

Jot down any sounds that you hear while your child is babbling. When you have heard them make a particular sound a number of times, colour that sound in or add the date next to the box.

We suggest that:

- you use a different colour to shade in the sounds each time you update the table and make it clear when you used this colour to record your child's progress.

The sounds given are those common to the development of English and so are not inclusive of all sounds that children may make. If you are using a language other than English then we would expect that the child would start to use sounds from that language and/or the child's vowel and consonant sounds would start to sound a bit like yours. You may want to add sounds from your home language to the charts, with your teacher of the deaf or speech and language therapist's support – this is very helpful. Your teacher of the deaf can show you where each sound would go in the table.

Table LV1: Babble stage – up to and including end of B5: Consonants

	What the sound is produced with					
Kind of sound **Babble stage**	**Lips** **(Labial)**	**Lips and teeth** **(Labio-dental)**	**Teeth** **(Dental)**	**Ridge behind upper teeth** **(Alveolar)**	**Palate** **(Palatal)**	**Soft palate** **(Velar)**
Nasal (air comes down the nose)	m man			n no		ŋ song
Stop (short sound)	p pea b bat			t toe d daddy		k cup g go
Fricative (long sound)		f feet v van	θ thing ð that	s sun z zip	ʃ ship ʒ measure	
Approximant (gliding sound)	w wet	r red		l lorry	j yes	

The next table shows the vowel sounds of English. As you can see there are more sounds than the simple five vowels a,e,i o,u. This is one reason that spelling can be difficult. English is not a phonetic language. How things are written does not always tell you how they sound, so a word like 'cat' is phonetic but a word like 'phone' is not. Here are the vowel sounds of English.

You may say these sounds differently to other people, often depending on where you live. This does not make any difference to your child, as children are likely to copy whatever their parents say – in the way they say it.

Table LV2: Babble stage – up to and including B5: Vowels

	Tongue position		
Mouth shape **Babble stage**	**Front**	**Central**	**Back**
Close	[i] key [ɪ] pit	[ʊ] foot	[u] two
Close-mid		[ə] about the	[ɒ] got
Open-mid	[æ] happy [ɛ] then		[ɔ] four [ʌ] upper
Open	[ɜ] turn		[ɑ] car

You will be aware these are not all of the vowels that we make. Another group of vowels that you may hear your baby/child make are called diphthongs. Diphthongs are vowel-like sounds with two parts. They are a glide between two vowels, and so are represented by these two vowel symbols. Highlight any of the sounds that you hear your child making when they babble.

Table LV3: Babble stage – up to and including B5: Diphthongs

Diphthong sound **Babble stage**	eɪ	ɑɪ	ɔɪ	əʊ	ɑʊ	əɪ	eə	ʊə
Example of pronunciation	bay	fine	boy	go	cow	ear	hair	poor

What are we looking for in the tables?

1. The starting point is not that the child should be producing every sound – but is the child producing the range and type of sounds appropriate for the stage they are at?
   The tables in the monitoring protocol itself provide you with a checklist of the most common sounds at any given stage.
2. Are there coloured boxes across a number of sections?
   This shows a child is making a variety of sounds in a variety of ways.
3. Do the sounds produced all occur in one section?
   If they do, this is a good point to discuss with your teacher of the deaf and/or audiologist. Sometimes this can be linked to frequent ear infections, poor fitting earmoulds that mean the aids cannot be worn at the right setting or because the hearing aid needs adjusting.
4. Are sounds being made, but are they not changing towards English or mother tongue sounds?
   This may be because your child cannot hear them (because of their frequency), because they have not heard enough sound consistently yet or that they are making the sounds match what they do hear – and this needs some adjustment of hearing aids.
5. By the end of B5 we would be expecting that *the vowel sounds* in particular reflect those of the most dominant language around the child.

A *good range* of consonants is being experimented with, although the child will not necessarily use them in words for a long time.

Table L1: Word level

Once your child starts to use words note the sounds used in them on the WORD tables. Don't forget it is quite normal to 'lose' some sounds as words emerge and for these sounds to re-emerge at a later date. Children are often, at this stage, putting all of their effort into combining sounds to express a particular meaning and pay less attention to how they say each sound individually.

Table L1: Word stage – use from B6 onwards; as soon as child uses identifiable 'words': Consonants

	What the sound is produced with					
Kind of sound	**Lips (Labial)**	**Lips and teeth (Labio-dental)**	**Teeth (Dental)**	**Ridge behind upper teeth (Alveolar)**	**Palate (Palatal)**	**Soft palate (Velar)**
Nasal (air comes down the nose)	m man			n no		ŋ song
Stop (short sound)	p pea b bat			t toe d daddy		k cup g go
Fricative (long sound)		f feet v van	θ thing ð that	s sun z zip	ʃ ship ʒ measure	
Approximant (gliding sound)	w wet	r red		l lorry	j yes	
Stop and fricative combined				tʃ chips dʒ juice		

Table L2: Word level – use from B6 onwards; as soon as the child uses indentifiable 'words': Vowels

Mouth shape	Tongue position: Front	Central	Back
Close	[i] key [ɪ] pit	[ʊ] foot	[u] two
Close-mid		[ə] about the	[ɒ] got
Open-mid	[æ] happy [ɛ] then		[ɔ] four [ʌ] upper
Open	[ɜ] turn		[ɑ] car

Table L3: Word level – use from B6 onwards; as soon as the child uses indentifiable 'words': Diphthongs

Diphthong sound Babble stage	eɪ	ɑɪ	ɔɪ	əʊ	ɑʊ	ɪə	eə	ʊə
Example of pronunciation	bay	fine	boy	go	cow	ear	hair	poor

As your child gets older you will be asked to think about where in a word the sounds are being used, ie at the beginning, in the middle or at the end, eg

Tin Bottle Cat
Sad Messy Kiss

Again, your teachers will compare this with developmental charts, as it is perfectly normal for children to sometimes miss out or substitute sounds.

What we are looking for in these tables (L1, L2 and L3)

1. Consonants – at this point we are trying to plot the range of consonants that the child is using so that we can compare their characteristics – are they:

- Front of the mouth sounds?
- Mainly stop sounds?
- Mainly high or low frequency sounds?
- Is there a good range?

We compare the sounds that your child is making with the developmental charts in B6, 7 and 8 of the main protocol, but also check against a frequency table (L4) to help us identify any sounds that may be missing because we are not amplifying them sufficiently. Some sounds, of course would not be used by any child until later and we need to balance the charts against our guidelines in the protocol for this as well.

2. Vowels – is the child actually producing the sounds as you do? Does the child have:

- A range of long and short vowels.
- Vowels which are made up of a range of frequencies; again your teacher of the deaf will analyse these.

3. Is there anything different and unusual? You may notice your child making:

- Sounds with added 'nasalisation' (ie producing the sounds too much through the nose).
- Sounds with 'lateralisation/lateral release', (where air is passing out at the sides of the tongue when sounds are produced). This makes the words sound very imprecise and 'slushy', as one parent said!
- Sounds at the back of the throat or through the nose; this gives them increased tactile feedback (this is the vibration from the sound they are making).
- A very high pitched voice.

These are the sorts of differences your teacher of the deaf will be looking out for as they may indicate that the hearing aids need to be more finely tuned. It is important that this information is collected and shared with other people providing support for your child, including the teacher of the deaf and the audiologist.

How do we know if the hearing aids are loud enough or are giving enough information to the child to enable them to hear spoken language and make sense of it?

We do this by using the information we are gathering about your child's sound system and responsiveness to sound in the home and in clinic tests and comparing this with what we know your child needs to hear in order to learn.

Sounds differ both in loudness (intensity) and pitch (frequency). Loudness is measured in decibels (dB). Audiologists describe loudness as 'intensity'. What we think of as pitch is called frequency and is measured in Hertz (Hz). All sounds are made up of different frequencies. We can describe this as the pitch of a sound. The frequency of a sound affects the pitch that it is heard at. For example if you look at a piano keyboard from left to right, the low pitch notes are on the left and high pitch notes are on the right.

Each consonant and vowel is made up of a number of frequencies. An easy way to think of this is when you make a cake, there are a number of ingredients that make the cake: flour, sugar, margarine, eggs. Similarly for each sound that makes up speech, there are a number of ingredients, but in this case the ingredients are energy bands at different frequencies. Each sound has a different pattern (or recipe!). If some frequencies are not heard or not heard well, the difference between the sounds becomes harder to hear. The greater the frequency loss the more similar sounds become. The colour on the charts that follow is to help you see the pattern that each sound has and how each is unique.

Hearing aids enable many deaf children to access sound at quieter levels across the frequencies than they would be able to do so without them – they make sound audible. For some deaf children the hearing aid used to do this, if parents wish, will be a cochlear implant. Other children will use more conventional hearing aids very effectively. Other parents may decide to use a more visual form of communication with their deaf child such as using BSL or signs to support English, either because they wish their child's first language to be BSL or because they do not feel their child is able to use hearing effectively. Most children however will be given strong support for making sense of sound, through their hearing aids.

How to use these tables (L4 and L5): use throughout the child's development in conjunction with the developmental aspects of the main protocol

Each sound has its own pattern of frequencies. These are shown on the diagrams and Tables L4 and L5. The degree (how deaf) and configuration (shape) of your child's hearing loss will give a good idea of which sounds will be easier to hear and which may be more difficult or in a few cases inaccessible. (Your teacher of the deaf and audiologist can explain this to you in relation to your child's hearing loss). With the help of the teacher of the deaf supporting you:

a) You should be able to map your child's developing sound system on to the table and compare that with the frequency charts to check that maximum benefit is being gained.

b) For example: to see the effect of a hearing loss that cuts off sound above 2000Hz simply place a piece of paper across the Table L4 to cover all information above 2000Hz – can you see which sounds now look similar? Now try putting the paper across the chart to cover up all sounds above 1000Hz.

c) By finding out more and more about your child's hearing loss as your child develops it should be possible to map the results of hearing tests on to this table and see which sounds are going to be the biggest challenge and which should be easier.

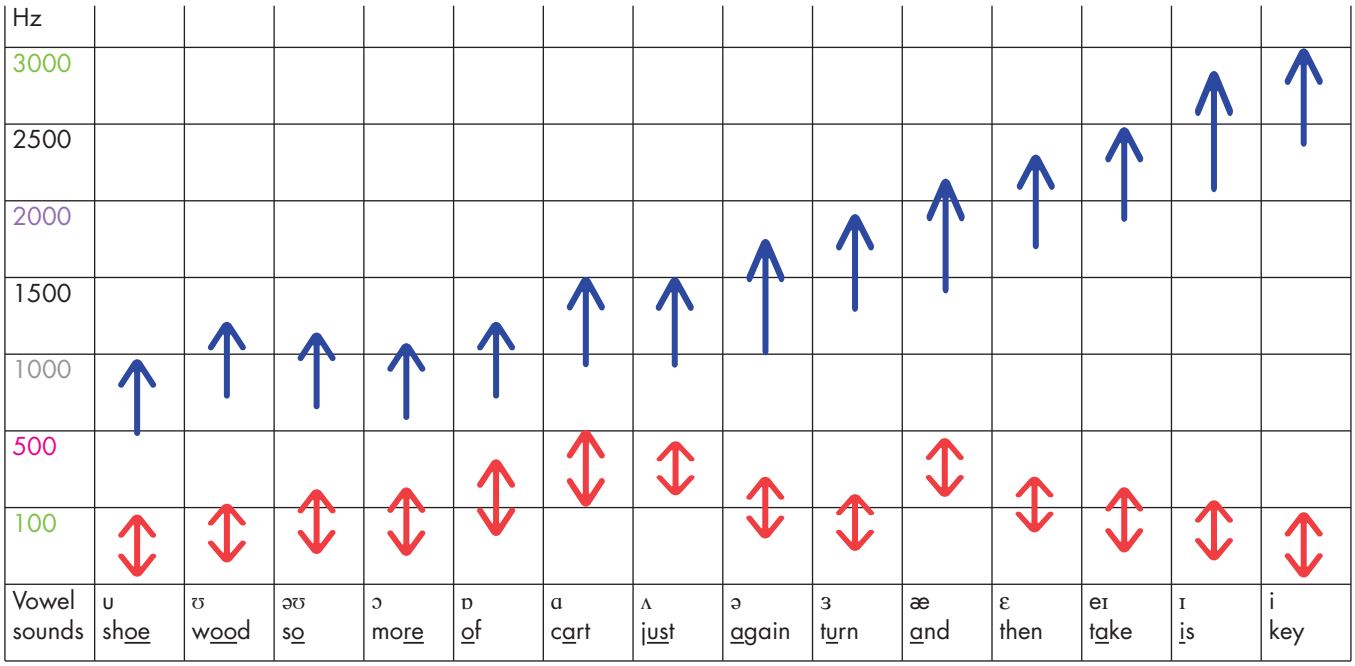
d) You can also compare this to the individual sounds you are hearing your child make and are mapping on Tables L1, L2 and L3 to get a more complete picture.

Table L4:
The frequency of consonants used (table after Ling 68, Fry and Denes and Pinson)

Frequency	150-250	250-500	500-1000	1000-2000	2000-3000	3000-4000	4000-6000	>6000	Relative intensity – how loud (dB)
sound									
p pan				1500-2000					7
b bat		300-400			2000-2500				8
t tea					2500-	3500			11
d dog		300-400			2500-3000				8
k king					2000-2500				11
g go	200-	300		1500-	2500				11
m me		250-350		1000-1500	2500-	3000			17
n no		250-350			2000-	3000			15
ŋ ring		250-350					4500-6000		18
f fan							4000-5000		7
v van		300-400					3500-4500		10
s sun							5000-6000		12
z zip	200-	300					4000-5000		12
ʃ ship				1500-	2000		4500-5000		19
ʒ measure	200-	300					4000-4500		13
θ think								6000	
ð brother	200-	300					5000		10
tʃ chip				1500	2000				16
dʒ judge	200-	300			2000-	3000			13
h hat				1500-	2000				
r red			600-800	1000-1500	1800-2000				20
l lip		250-400			2000-	3000			20

Table L5: Frequency of vowels formants (after Ling and Ling)

Vowels have strong bands of energy across specific frequencies. Both consonants and vowels are made up of a mix of frequencies. Vowels are lower in frequency and louder than consonants and are easier to hear for most children with a hearing loss. Vowels are made up of bands of energy which have clear frequency characteristics. The frequency spread of the vowels of English is shown on Table L5 below. By looking at the energy bands (formants) – for vowels to be understood – mid to high frequency information can be very important. In Table L5 the arrows represent the first and second formants or energy bands of each vowel/diphthong.

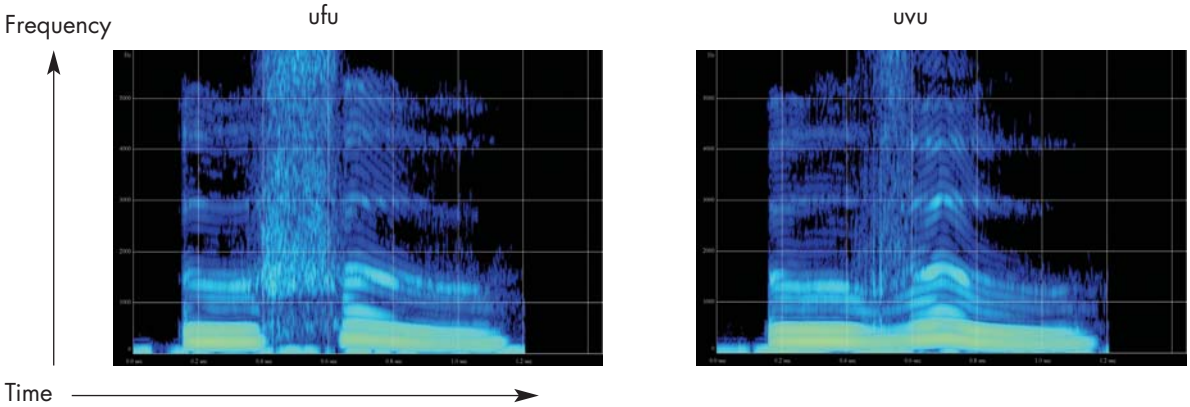


This table can be used to help clarify vowel use and perceptions. Again it is important that findings are discussed with your teacher of the deaf/speech and language therapist and set in their developmental context.

A cautionary, and yet, a hopeful note

REMEMBER – we do not talk in individual sounds but in words and sentences. When we do this another factor involved is TIME. This is important in the way that sounds interact with the sound next to them. For example the two nonsense words ufu and uvu differ only in the middle sound but this changes the pattern of the whole sound, ie the sounds either side of /f/ or /v/, and this can be seen in the spectrogram on the next page:

Spectrogram showing the pattern of two nonsense sounds



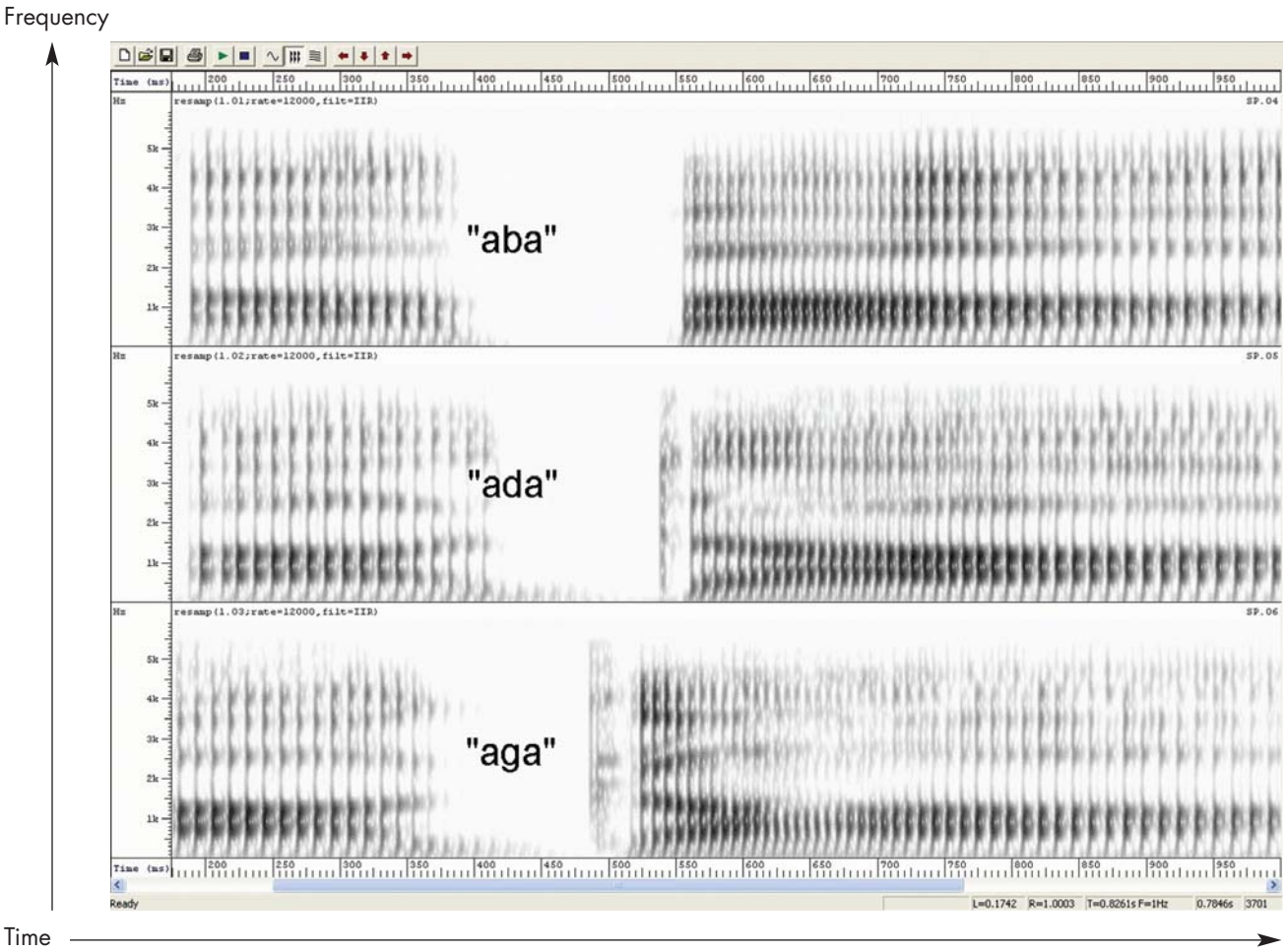
You do not have to be a great physicist to compare these two print outs and see the differences.

In technical terms, the strong band of energy across the bottom of these pictures is very low frequency energy and helps us to tell the two sounds apart. Look closely and you will see that 'ufu' has a break in the energy band, now look at the pattern for 'uvu' and you will see the energy band goes right across the bottom. This tells us the sound is voiced and contains lots of low frequency energy.

There are other differences in the spectrograms of course and all help in the discrimination process. Each sound that we make is influenced by the one before and the one after. The ways in which they are affected give us a clue as to what is coming next. In addition we have many other clues to help, which are not acoustic, since we rarely try to make sense of anything by listening alone – it is usually in context, ie what we already know about something, what people are looking at and showing us etc. However the point here is, that even if the only clues we had were the 'sound' ones, hearing the sound in words and sentences actually makes it more accessible to us because of the additional clues we are being given.

In everyday speech we use a whole range of words as we chat to those around us. The information available to any listener will depend on both the frequency spread of the sounds, the way each individual sound interacts with the sound next to them and the context. In the past people thought that if we slowed speech down and exaggerated it, it would help deaf people. In fact we now know that if we slow down speech, or exaggerate it, we destroy these cues and actually make it harder to understand, because we distort or destroy some of the sound clues normally available.

Very small changes in frequency are the key as to how we understand the sounds of speech, ie not the individual sounds but the way each sound goes together with the sounds that follow it. The next picture is another spectrogram showing changes in frequency over time.



Remember again that all we are asking you to do here is 'spot the difference' – this time with your eyes. In reality you are doing it with your ears all the time. Clearly the bands of energy are changing. These changes are because of the consonant differences, as each 'syllable' has the same vowel sounds; it is the consonant that affects the shape of the bands of energy. This is very important information for any listener; we are usually unaware of these small changes even though they help us to understand speech. This is why connected speech is much easier to understand than single words.

If you place a piece of paper over the higher frequencies on the spectogram to simulate a high frequency hearing loss you can see that each of these syllables begins to look more similar.

Try putting a piece of paper across each spectrogram to cut off sounds above 2000Hz (2KHz) and compare how each of the sounds looks and see how much difference there is now between the sounds.

To sum up

- Hearing tests give us information about frequency (pitch) and intensity (how loud) and tell us what a child cannot hear. They do not tell us how well a child can learn to listen.
- The type of hearing it is important to gain information about is what a child can now hear with hearing aids.
- For some children high frequency sounds will be harder to hear or may not be as accessible.
- Clear but important clues can be picked up from connected speech.
- As a child develops there should be a steady increase in the range of sounds they both use and respond to.
- If some sounds are not developing, information from hearing tests and frequency charts for consonants and vowels should allow you to discuss possible reasons why, with your teacher of the deaf and or audiologist.

Adult-child talk: Child–directed speech and language – why it helps listening and attending

When adults talk to children they change the way they speak. Their voice often has a 'sing-song' quality:

- The intonation (melody) goes up and down in an exaggerated way.
- Higher pitch is used, dropping to lower pitch at the end of speech.
- Many pauses and repetitions are used.

If you try talking to another adult the way you talk to a young child or the other way round you will notice how much you change the way you speak. This style of talking helps young children in a number of ways, but in particular 'grabs their listening ear'. Children are often fascinated when adults talk to them in this way and will pay greater attention to the adult talking to them. This initial emphasis on what we call the 'intonation' and the 'sound envelope' is reflected in the way children's own speech develops. Early on in their vocalisations they start to sound like an English, Welsh or Urdu speaking baby. Although children may not be copying the words you are using they are likely to start copying the 'tune' of what you are saying. This means the child can mimic the ups and downs of your speech even though they do not have the individual sounds to put together: for example if you said: 'Peek-a-boo here I am!' you would say this emphasising specific words and using exaggerated rhythm, it might look something like this:



'Peek-a-boo here I am!'

Children learn to copy the pattern often using mostly vowels.



This is very important and tells us about developing listening skills, attention and turn-taking skills. If you hear your child doing this jot down a note to remind yourself to tell your teacher of the deaf about it. An important point to recognise here is that if your child is doing this then you know that they are at least hearing the sounds they produced in the imitation. Intonation cannot be seen on the lips – it is heard and copied as a result of being attended to.

As your child listens to you they will start to recognise the pattern of phrases you often say, for example 'Shall we get your dinner?' or 'Time for a bath'. If you imagine you are talking to a small child and say these phrases and compare it with how you would say this to another adult you will hear how you change your voice automatically.

Practical things: getting the amplification right

Families need to learn basic management of the hearing aids. Your audiologist or teacher of the deaf will guide you through this and provide ongoing help as you need it. Babies grow quickly and so do ears; it is very important that earmoulds are a good fit and do not whistle. It is relatively easy to get a very young child to wear hearing aids. It is much harder to get moulds that fit. Families need to demand good earmoulds. Your teacher of the deaf and audiologist will help you with this. Hearing aids need to be checked at least daily to make sure they are working well and providing a good signal (sound) to your child. Your local services should provide you with all the tools for daily management:

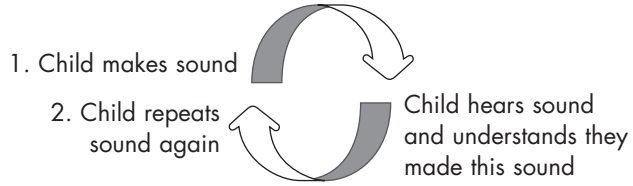
- A stetoclip so you can listen to your child's hearing aids.
- An attenuator – this clips into the stetoclip or may be part of the stetoclip and protects your ears from loud noises.
- Spare batteries and a battery tester.
- A forced air blower to keep the tubing free of moisture.
- Spare tubing.
- Earmould threader – you will be shown how to re-tube an earmould and how to fit the earmoulds.
- A telephone contact to request replacement aids or new earmoulds.
- You will also be shown how to clean earmoulds.
- Clips so that you can attach your child's hearing aids to a coat/buggy when you are out and about so that they don't get lost.
- Attachments that may help hold your child's hearing aids in place if they are not sitting well behind the ear.
- It is also helpful to have a tube of KY gel or Vaseline to hand to help earmould seal when inserting them each time.
- If your baby is using bodyworn aids Velcro patches can be used to secure the aids to clothing.

It will seem odd at first, but you will soon become an expert in hearing aid management. By checking hearing aids are working well you ensure your child has the opportunity to hear sounds around them. It is important to remember that if your child is unable to use their hearing aids for any reason they will get a lot of information from your body language. Through being close to you they will also be able to hear you better, although this will be more problematic for a child with a profound degree of loss.

Hearing aids are set by the audiologists to help your child make the best of their listening. They must be worn on the right setting and volume level. The sounds your child makes and the way they develop speech are affected by what they can or cannot hear. Hearing aids may need to have the settings changed as the child's listening and speech develops. As you spend more time with your child than the audiologist does with them you are in the best position to help and offer information, which can inform how the hearing aids should be set. For example, if your child is producing a lot of sounds through their nose, the hearing aids may need the low frequencies reducing. If your child is not producing many high frequency sounds then they may need the hearing aids set so they can hear more high frequencies. You may of course find the aids are well set and need no adjustment at present. If your child seems to be dropping back and starting to use fewer sounds always tell your teacher of the deaf and or audiologist so they can investigate why this is happening.

Hearing aids work best in quiet situations. In busy families these can be hard to find. Hearing aids prefer rooms with carpets and soft furnishing, with the TV/radio off so children can concentrate on listening to you chatting and playing with them. Children will respond in many ways. When young children use their voice to babble, hearing aids allow them to hear this themselves. In this way children become aware of their own voice and start to learn how to use it. Like all young children deaf babies make lots of babbling, gurgling and cooing sounds.

Hearing aids work best at about one metre and work less well at a distance. At first your child will need to see you as well as listen to you. It takes time for children to find their own voice and to understand that the noise they hear is being made by them! We call this a feedback loop.



As your child becomes a more confident hearing aid wearer it will be possible to start to extend the range over which your child recognises your voice and looks for you. The best quality amplification will help your child to develop their listening skills and with it their vocal skills.

One piece of equipment that may be very helpful, particularly for children who have a more severe or profound hearing loss, is an auditory trainer or ATU. This is not a personal hearing aid, it is a piece of equipment that can be used when you are sharing a book or playing a game. ATUs can be used with headphones or small insert phones rather like the ones people use with personal CD systems. ATUs provide very high quality amplification across a wide range of frequencies without the problem of whistling (feedback). You may want to ask your teacher of the deaf or audiologist whether you can borrow an ATU and ask them to show you how to set it up for your child.

And what happens next?

If you have any concerns as to how your child's attending, listening and vocalisation skills are developing, then you must share this with your audiologist, teachers of the deaf and others. As children grow and develop their amplification needs may change, but also the things that children do help the professionals to meet their amplification needs more accurately. Your evidence as to what your child does is crucial in this process. Take the protocol with you to your appointments; do not be afraid to ask for an extra appointment if you have concerns. Sometimes the explanation is simple, some factors that may affect and slow development are suggested below.

Factors that may affect development

Any ear infection or heavy cold can affect a child's hearing levels. Many small children have frequent colds and may be unable to wear their hearing aids for some time or may have a temporary increase in hearing loss while the cold lasts.

Children need access to the best quality amplification for their waking hours if they are to learn to listen. This means reducing the background noise, making sure the aids are working properly and talking with your child. It may be you doing this or it may be a child care assistant or nursery nurse. The pace of development of both listening and speech skills varies massively across all children in the same way that some walk before others, or some can read earlier. The important thing is that you give your child the best chance and help that you can.

Factors that may affect development: possible actions

Time of identification of hearing loss – status may change	Degree, type of loss, configuration (shape) may change overtime. Any changes in listening behaviour need to be shared.
Feedback loop	Hearing aid fitting and management, daily checking – ensures consistency of auditory input for children.
Inappropriate input	Family or day carers are making sure that when they talk to your child it is in an interesting voice and it is about something the child is doing or just about to do. Rhymes and repetitive games are ideal. Noises that are completely unrelated to the situation are meaningless as they are out of context.
Earmoulds	Good fitting earmoulds are essential; infants may need new earmoulds every two weeks in the early stages. This can be very demanding especially if earmoulds are a poor fit. It is important to demand good services in this area – ask your audiologist and teacher of the deaf to support you in obtaining high quality earmoulds quickly.
Background noise	Environment – hearing aids are increasingly sophisticated but always work better in quiet situations, having the television on all the time is an example of a poor listening situation. It will be harder for your child to hear when in the pushchair or at playgroup. You will become aware of good listening situations and bad ones as your child gets older.
SCBU	Wellness of child – for some children the early months can be very difficult and only as the child becomes stable and well, will development of listening start to take off. This does not mean that ill babies do not hear simply that illness may delay the development of a range of skills.
Middle ear infections	Many children have ear infections that add a temporary hearing loss and may mean a child cannot wear the hearing aids if the ear is runny. Prompt treatment via your GP is important. Your child's middle ear condition should be monitored regularly.
All developmental areas	Other disabilities: some children will have other special needs. For this group of children the pattern of development may be more delayed. It may be harder to get reliable hearing tests and hearing aid fitting may be delayed or need more ongoing adjustment. Your teacher of the deaf or other support worker will help to advise on this and look at developing skills to ensure adjustments can be made when they are needed.

When it is important to get additional information about listening and vocalisation a range of test approaches are possible. Professionals may want to try the following.

Further ways of looking at listening skills	Hearing tests by audiologists
Ling 6 sound test in a play situation simple response (oo ar, ee, s sh, m); signal intensity should be measured with a sound level meter	Visual reinforcement audiometry from six months of age will give ear-specific frequency-specific information and indications of what a baby can hear with and without hearing aids
For older children – Automated Toy Tests (audiologists will do this test)	Pure tone audiometry – see your information material and ask your teacher of the deaf about the tests your child will do once they are in their third year
Co-operative tests of hearing – For older children with some language Maltby speech test/Merklein speech test (audiologists and teachers of the deaf will carry these out)	
Procedures for analysing vocalisation	**Procedures for exploring attending behaviour**
South Tyneside Assessment of Phonology (STAP) (once the child can share pictures and has single words or is imitating	The Tait Video Analysis, The Ear Foundation
Profile of Actual Speech Skills (PASS) (Nottingham Early Assessment Package, The Ear Foundation)	

Parental behaviours that support effective listening

Starting points: Factors that may affect progress and outcome

Factor
Age at diagnosis
Cause of hearing impairment
Degree of hearing impairment
Effectiveness of amplification devices or a cochlear implant
Effectiveness of audiological management
Hearing potential of the child

Audiological management: As a parent do you? are you?
understanding your child's hearing impairment and relate this knowledge to environmental and speech sounds
understanding what your child's amplification can and cannot do
taking responsibility for consistent hearing aid use, earmould provision etc
confident at maintaining hearing aids or reporting faults
know how to and check hearing aid daily
using the Ling six sound test
know how to clean and fit earmoulds
have spare parts available for hearing aids and quick access to spare hearing aids
know the levels your child needs to wear his or her hearing aids on and take them back for earmould impressions if the moulds are not supporting this.

Environmental management: As a parent do you?
attempt to reduce background noise whenever possible
reduce signal to noise ratio by getting near to their child's microphone, where possible

Table LP1: Parent/carer behaviours/strategies that foster effective listening: stages B1–B5

Stages B1–B5 Awareness of sound: the parent/carer/adult	How this helps/what you can do
Holds baby/child and rocks to rhythm of the music or song	Your baby/child is learning that sounds and movement often go together, and by keeping the rhythm with your body you are drawing attention to the different qualities in music and speech and body movements – such as long vs short, high vs low and soft vs loud sounds.
Uses rhymes and song	These engage and sustain the child's attention, incorporate changes in pitch, rhythm and intensity; they can be gentle and comforting or lively and humorous; they encourage familiarity, anticipation and eventually participation.
Follows child's attention to a toy or mobile and associates the same sound with the toy: for example, 'Brmm, brmm, the car goes brmmmm, brmmmm' or 'Aaahhhh, here comes the aeroplane' or 'There's the choo-choo train'	Adds meaning to the child's experience and sets the scene for the child working out which sound goes with what.
Recognises when child hears a sound and demonstrates developing understanding of that sound. For example, your child hears you say the beginning of a finger rhyme and puts his/her hand out ready to play the game	Your enjoyment of the child's success and the playing of the game rewards his/her developing awareness of sound and, drawing on what they have already experienced, they will continue to do this more.
Generally talks 'within earshot' (Ling 1981), ie within range of the baby/child's ear	The further you are from your child's hearing aids the more difficult it will be for them to hear you. Try moving closer (within 1m) and softening your voice. Notice if you get a better response from one ear rather than the other. Is this consistent with what you have been told?
Draws child's attention to new sounds in the environment	Helps your child to become aware of the noises in the environment from noisy traffic and helicopters to birds singing and leaves rustling. Use cues such as: 'Do you hear that?', 'Listen!', 'I can hear a something…' 'I hear wocka, wocka, wocka' before you go and find the source of the noise, in this case the helicopter.
Draws child's attention to familiar sounds around the house. Your audiologist or teacher of the deaf will explain your child's hearing loss and the access they will have to sounds in the environment	Helps your child to be aware of those sounds by revisiting them often and by making the connection between the sound and its source. The sound is 'on' and now it's 'off', eg the vacuum, the microwave.
Directs child's attention to the sound sometimes before showing the child the toy or action that makes the sound	Child toys, rattles and so on help your child to become aware of sound makers, when used as a game not a test – once they are able to let them squeeze or bang noisemakers. Remember however the best noisemaker is you and play with your voice too!
Enhances child's listening to new stimuli by playing noisemaking games and shaking toys/whispering near child's ear/hearing aid.	Sings softly into child's aid as they rock them; 'Listen! The cow says "moo"' (toy moos). Baby/child shows no response so lift the soft toy up to their ear (not in front of their face) and say: 'Do you hear the cow "moooo, moooo ..... the cow says moooooo"?'
Knows which sounds the child is aware of and is constantly extending their repertoire	Begin by noting loud environmental sounds and as you help your baby/child increases their awareness of sounds move onto quieter environmental, household and speech sounds. Colour in the phonetic charts in the listening and vocalisation strand to help you keep track of the sounds your baby/child is aware of. This is also a good record to share at your next audiology/hearing aid appointment.

Level 2 check materials: Attending, listening and vocalisation development

Discrimination and recognition of sounds

The parent/carer/adult	How this helps/what you can do
Is learning which sounds the child can discriminate, expects the child to do so and supports further more subtle discriminations	Your child may show more response to someone using 'baby/child talk' than to adult conversation. They may look towards you rather than their dad when they hear your voice rather than their slightly deeper voice. Or they may show concern when they hear an angry or a sad voice. They are learning to discriminate between different sounds and voices and to recognise what or who is making that sound.
Recognises that there is a developmental order to extending the child's discrimination of speech sounds	Looking ahead in the monitoring protocol will give you some idea of the developmental order and process of learning to listen; every child is different so ask your practitioner to help you to identify where your child is now, how that relates to their audiogram, what evidence you have to contribute to the next audiological assessment and what you could be drawing your child's attention to next.
Contrasts suprasegmental features of daily sounds, for example animal, action, object sounds and words	Eg: 'Look, they are going up, up, up..... and..... weeeeee down the slide.' Your practitioner will suggest further games and everyday play activities that naturally allows this to happen.

Comprehension of sounds

The parent/carer/adult	How this helps/what you can do
Is quick to recognise when the child hears a sound and demonstrates comprehension of that sound	As soon as your child consistently understands the meaning of a sound, word or phrase try doing it sometimes without any additional visual cues. For example, when your child hears you say the beginning of a finger rhyme do they put out a hand ready to play the game.
Uses 'baby/child talk' and appropriate acoustic highlighting	'Parent talk' helps your child tune in to your voice and to keeps them engaged in interaction. As your child learns to recognise more words you may find that you are using less baby/child talk but still emphasising important features of speech through acoustic highlighting. Acoustic highlighting may take the form of saying the key word slightly louder and at the end of a phrase or sentence. The phrase should then be repeated in a normal speech pattern. As each new speech pattern becomes familiar acoustic highlighting may also be dropped.
Models language when in face-to-face interaction and when depending upon listening alone	The very fact that you have responded to your baby/child's early communicative attempts reinforces the value of their contributions; by also modelling a more sophisticated response: the correct pronunciation, a phrase or extended meaning, you are showing your child how they can make themselves even more communicatively effective.

Table LP2: Parent/carer behaviours that foster effective listening: stages B6–B9

Engaging the child through listening and voice

The parent/carer/adult	How this helps/what you can do
Uses sound-making toys and suspense to engage the baby/child	'Grabs' their attention and holds their interest in the toy and sound – for example whether you use your voice to make a sound to go with a toy or object, eg 'Yum yum' for a toy ice-cream, or activate a noisemaker such as the siren on a fire-engine, make the sound first then wait, expecting your child to attend. Repeating several times not only engages your child but also builds up the suspense and the listening experience before you reveal the toy that is associated with the sound.
Engages the child with increasingly softer sounds and more subtle cues	Helps children become more aware of sounds not 'in their face'. Keep shifting your targets onwards. If you can engage your child by calling from a distance of one metre then try talking normally from one metre away. Or get closer and talk quietly. See if they take notice when there is more background noise.
Sits next to child, or has child on lap, wherever it is natural to be, rather than assumes the need to sit opposite	Sitting with your child on your knee while you share picture books or finger rhymes conveys all the security, warmth and enjoyment of being together while also satisfying optimum conditions for good signal to noise ratio.
Draws the child's attention to new sound or event first, then may add on visual or tactile cue, before returning to the sound on its own	Helps your child think about what sounds might mean, eg the dustbin lorry arrives? Draw your child's attention to the new and interesting sounds. Comment upon the sounds. What do they mean? Go outside and watch the lorry in action. Discuss what the sounds are related to. Is it going to go beep, beep, beep as it reverses? The noise has stopped now…and so on.
Draws the child's attention to other people's conversations and questions and helps them to focus on one person talking at a time	Children learn a tremendous amount from overhearing other people's conversations, they must also learn that a basic rule of conversation is to give someone else a turn to speak. These are sophisticated skills, but you may help your child begin to appreciate them by drawing their attention to the fact that other people are talking/taking their turn.
Knows which sounds the child is aware of and adapts this knowledge to account for changes in distance and background noise	Charts in the listening strand of this protocol or other helpful charts including symbols for noisemakers or the speech banana will help you and your practitioner to compare the sounds your child demonstrates awareness of, with their current audiogram.

Discrimination and recognition of sound

The parent/carer/adult	How this helps/what you can do
Knows which sounds the child can discriminate, is consistently extending the child's repertoire; is beginning to adapt this knowledge to account for changes in distance and background noise	Think of the different phrases you repeat daily, such as 'It's time for lunch'; 'It's time to go out'. Does your child perceive the difference between the two phrases and show you by looking at the table or the door?
Knows how to contrast words varying in number of syllables	'Let's put away the one that says "Baa baa" vs "Moooo" vs "Cheep, cheep, cheep".' Where there is a choice of just a few items, help your child by drawing attention to contrasting sound patterns in very natural play contexts.
Extends discrimination games to longer and more complex games	Every day pairs such as your 'socks and shoes' or jigsaw pairs where you can fit two items together provide good natural opportunities for this, eg: 'I'd like the dog and the puppies', 'Where is the sheep and her lamb?' 'Put the key with the door' etc.
Encourages her child to 'listen the first time' and gives her time to process the sound or phrase.	Expect your child to respond to familiar phrases they have often heard – and signal your pleasure that you did not have to say it again – 'dinnertime!', 'Do you want juice?'.

Table LP3: Parent/carer behaviours that foster effective listening: stages B10–B11

Engaging the child through listening and voice

The parent/carer/adult	How this helps/what you can do
Engages her child with increasingly softer sounds and more subtle cues	Using softer sounds, moving further from your child, and expecting them to acknowledge the appeal of your interaction helps tune the child more into what they can hear around them, not simply what is loud and clear.
Manages to engage her child in more challenging listening conditions, eg whispering, background noise etc	Engaging your child at nursery or playgroup will prove much more challenging with increased background noise, larger groups and greater distances to cover. The more you can prepare your child for these experiences the easier it will be for them to adapt.

Awareness of sound

The parent/carer/adult	How this helps/what you can do
Encourages the child to monitor their own environment through hearing	If you want your child to understand the consequences of, for example, leaving the tap running after washing her hands, they must have the prerequisite skills of recognising the sound of running water; of discriminating the sound of running water from other sounds around them and foremost of all an awareness that running water makes a sound. So there may be occasions when you invest time in the daily routines such as hand-washing in order to build the understanding and experience they need to monitor their own environment through their hearing.
Directs the child's attention to a new sound first, sometimes adding on visual or tactile cue	Exploring new sounds is most effective in a quiet environment where the child is not easily distracted. Looking at pictures provides all sorts of stimulation for new sounds and language, eg 'Can you see the girl who's jumping? .....she's jumping high in the air', before pointing to the appropriate picture.
Knows about the goal of casual listening	What does your child hear when they are immersed in their jigsaw or brick building? Will they be aware of the telephone ringing, the knock at the door, the child asking them out to play? Listen too, and help them to tune in to those sounds. Draw their attention to someone knocking at the door and gradually expect the child to become aware, recognise what the noise is, respond by opening the door and greeting a friend or 'nana'.
Knows which sounds the child is aware of and adapts this knowledge to account for changes in distance and background noise	From loud to softer, from near to further, from good to poorer background noise. Praise the child when they demonstrate strong listening behaviour and awareness in difficult situations.

Table LP3: Parent/carer behaviours that foster effective listening: stages B10–B11
Engaging the child through listening and voice
Discrimination and recognition of sound

The parent/carer/adult	How this helps/what you can do
Knows which sounds their child will discriminate and adapts this knowledge to account for changes in distance and background noise	Your child is on the move and actively exploring, put your self in their position and help them to perceive and recognise more subtle differences in the language used around them.
Extends discrimination of common phrases	As your child's social life moves into new activities and groups the opportunity to extend their discrimination of common phrases also increases.
Continues to be aware of their child's ability to discriminate sounds in relation to the hierarchy of listening skills and can discuss the application of this with others	By following your child's progress through the developmental path of 'learning to listen' you are best equipped to help your child progress, question when things may not match your understanding and provide evidence to help the practitioners meet your child's needs effectively.
Lets the child know when they cannot hear because of background noise or distance	This tells your child that there are times when people with normal hearing have to seek clarification: 'I'm sorry, I couldn't hear you for the train. What did you say?'
Repeats and reinforces new vocabulary and phrases through a variety of daily activities, play, books, songs and rhymes	For your child to become an effective listener you need to give them a broad range of listening experiences and extend these into a wide range of contexts. Learning to recognise and understand speech sounds is the foundation of all spoken language, the base of a pyramid of increasingly sophisticated linguistic competence, so it helps if your child's foundation experiences are extensive and solid.

This publication helps professional practitioners and families look in more detail at issues arising from the use of the Early Support Monitoring protocol for deaf babies and children and 'fridge cards'. The material was first published in 2004. This edition incorporates suggestions for improvements received from people who used the material in 2004-2006.

Early Support

Early Support is the central government mechanism for achieving better co-ordinated, family-focused services for young disabled children and their families across England. It is developing at a time of significant change, as part of the re-structuring of children's services in response to *Every Child Matters* and alongside new integrated assessment, information and inspection frameworks for children's services.

Early Support builds on existing good practice. It facilitates the achievement of objectives set by broader initiatives to integrate services, in partnership with families who use services and the many agencies that provide services for young children.

To find out more about the Early Support programme, visit www.earlysupport.org.uk

To get a copy of the *Monitoring protocol for deaf babies and children*, which is available free of charge, please ring 0845 602 2260 using the reference number ES29. The reference number for the 'fridge cards' is ES32.

Copies of this booklet can be obtained from:
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