



Please use these suggestions as a guide only.

MILESTONE 1: First Three Months Post Implant	
TARGET BEHAVIOUR	EXTENDED EXAMPLES
1. Wears processor for extended periods	<ul style="list-style-type: none"> • Processor worn for most of waking hours • Much less likely to deliberately remove • Is neutral or reacts positively to processor fitting
2. Noticeable changes in behaviour / responsiveness when the processor is worn	<ul style="list-style-type: none"> • Recognises the difference between sound and silence • May still, startle or vocalize when processor is first switched on • Vocalizes more, easier to engage attention, seems more generally alert and attentive
3. Detects and reacts to environmental sound and voice	<ul style="list-style-type: none"> • Shown by smiling, looking puzzled or surprised or getting excited by certain sounds and voices • Reacts to a range of everyday sounds although does not yet recognise (Use listening questionnaire as a guide)
4. Definite turns to locate interesting sounds	<ul style="list-style-type: none"> • If trained and encouraged, positively indicates when they hear something interesting, e.g., by pointing to ear • Actively searches to find the source of sounds • Reacts to voice in hidey / boo games
5. Responds to music and noise making toys	<ul style="list-style-type: none"> • Enjoys making sounds themselves • Aware of sound when they press buttons, turn handles on noise-makers or musical toys • Reacts to sounds from musical instruments made out of eye line • Enjoys dancing to music, either by themselves or when held by an adult • May begin to sway, etc. in response to hearing music • Stills and listens when the sound stops and then reacts when the sound begins again • Notices when adult begins or stops singing out of eyeline
6. Attention can be captured by voice only, providing it has high interest value	<ul style="list-style-type: none"> • Behaves differently in response to hearing voices or environmental sounds • Responds to high impact words such as Wow! Look! Oh Dear! Uh-oh! Gone! • May turn when name is called. N.B At this stage child is unlikely to recognize their name beyond this context • Responds to voices in wake-up, hidey/boo games • In familiar anticipation games, e.g., 'I'm going to chase you' etc., child reacts with excitement to hearing the beginning of the routine
7. Interested in talk directed towards them	<ul style="list-style-type: none"> • Realises that voices are an important way to communicate, i.e., more responsive when communication with them includes use of voice • Begins to quiet and attend to adult commentaries running alongside everyday routines • Listens to own voice and often vocalises back in response to being spoken to • Child looks to speaker
8. Affected by tone of voice	<ul style="list-style-type: none"> • Recognises some of the clearest emotional dimensions of voice • Responds differently to loud, excited voices and loud angry voices • Responds differently to happy and sad voices • Reacts differently to a raised, warning voice-such as someone calling 'no!' • May laugh in response to hearing laughter
9. Uses own voice purposefully to make things happen	<ul style="list-style-type: none"> • Is noticeably more vocal • Calls to gain adult attention • Uses voice to make requests and to protest • Imitates adult model to use voice purposefully to make things happen; e.g., to activate Pop-up toys, in wake-up games with people or toys, to ask for the repetition of a game such as blowing bubbles
10. Detects a wide range of sounds across the speech frequencies. ie from low pitched to high pitched	<ul style="list-style-type: none"> • Reacts to all LING sounds 'mm', 'oo', 'ah', 'ee', 'sh', 's' • If developmentally ready, can make conditioned responses to sound, e.g., dropping a brick etc. in response to hearing Ling sounds • Can make a conditioned response to a range of other early / highly meaningful speech sounds, such as waiting for 'Go' before sending a toy car down a ramp



MILESTONE 2: Three to Six Months Post Implant

TARGET BEHAVIOUR	EXTENDED EXAMPLES
1. Adults can notice definite changes in child's behaviour if the system stops working	<ul style="list-style-type: none"> Child looks puzzled or upset, becomes quieter and more withdrawn It's harder to gain their attention May look to an adult to signal their confusion
2. Recognises some familiar everyday sounds	<ul style="list-style-type: none"> Dog barking, baby crying, phone ringing, door opening, familiar voices (Use listening skills questionnaire as a checklist) Looks in roughly the correct direction in response to hearing a sound Searches for the source of a hidden noisemaker Makes the correct behavioural response, for example, going over to the telephone when it rings Looks sad when hears crying
3. Is puzzled / more interested in new or unusual sounds	<ul style="list-style-type: none"> Reacts differently to familiar and unknown sounds Will break off activity and look around for source of sound or to adult for explanation Will react to an interesting sound such as a clicker toy
4. Consistently moves to music and definite behavioural changes when adult starts singing out of eyeline	<ul style="list-style-type: none"> Definite reactions to different sorts of songs and music Begins to demonstrate a preference for certain songs May start to attempt some of the actions in songs such as, 'Wheels on the bus' in response to adult singing the words
5. Listens to others talking	<ul style="list-style-type: none"> Looks up in response to hearing conversations Looks between speakers appropriately in conversations Attention can be held for longer with voice
6. Consistently takes a vocal turn in early conversations	<ul style="list-style-type: none"> Recognises that a pause means it's their turn to 'talk' Will respond vocally without needing a gesture etc. to confirm Can sustain this over a number of turns Consistently makes requests by using voice and an appropriate intonation pattern
7. Non-looking vocal turns established (TAIT analysis)	<ul style="list-style-type: none"> Responds vocally in early conversations even when not looking at partner Vocalisations beginning to reflect elements of the words spoken to them Overall patterns of child's voice are more tuneful and speech-like
8. Child's vocalisations are influenced by what they hear. Auditory feedback loop well established, i.e., child hears it and automatically attempts to repeat it	<ul style="list-style-type: none"> Begins to echo parts of words they hear or the suprasegmental features, e.g. the intonation patterns of speech in games like 'Up-up-upwhee! Down it goes!', 'Peepo', 'Round and round' During activities such as book share or play with small world toys, child echoes adult words with vocalisations which contain fragments of adult models
9. Recognises own name in favourable conditions	<ul style="list-style-type: none"> i.e. in quiet and when attention not otherwise occupied Can gain child's attention by calling their name
10. Demonstrates specific responses to wide range of sounds across the speech frequencies	<p>This may be shown in some of the following ways;</p> <ul style="list-style-type: none"> Finger to lips when hears 'sh' Associates yum-um or mm with good things to eat Associates 'aaah' with stroking/feeling something soft Looks for a car when hears the symbolic sound brrm-brrm Signs 'cow' when hears the symbolic sound 'moo' Points to a mouse when you say 'ee-ee'

NAMES: Extended Examples

Gill Datta, Amanda Odell, Karen Durbin (2008)



MILESTONE 3: Six to Twelve Months Post Implant

TARGET BEHAVIOUR	EXTENDED EXAMPLES
1. Child realises independently if the system stops working	<ul style="list-style-type: none"> • Goes to an adult for help or tries to replace the coil by themself • May physically still and vocalize to ask for help • If child has the language, may attempt a word/sign such as 'gone' or 'broken'
2. Recognises familiar tunes without prompting. Joins in with the correct actions and later with vocalisations for familiar action songs (without prompting)	<p>This may be shown in some of the following ways;</p> <ul style="list-style-type: none"> • Vocalisations when 'singing' are different from 'speaking voice' • Recognises the theme tune of favourite TV programmes without needing to see the pictures • Will recognise without prompting when the song changes • If adult begins singing a familiar action song, child attempts the corresponding actions • Child changes actions if adult changes the song • Child begins to vocalise along when they hear songs • If adult pauses before last key word e.g., 'all fall...', child should fill-in the gap vocally
3. Recognises the voices of a number of familiar people heard out of eyeline	<ul style="list-style-type: none"> • Recognises familiar voices from outside of the room and gets excited, e.g., mum or dad • If developmentally ready, listens with pleasure to familiar voices on the telephone etc.
4. Knows and turns immediately to name even in less favourable conditions	<ul style="list-style-type: none"> • Responds to name even if TV is on or if engaged in an activity (but may choose to ignore!) • Can respond to own name over a greater distance • Picks out own name in contrast to those of other members of the family or friends • May point to themself when they hear their name
5. Links a range of symbolic sounds and early phrases to objects / events (listening alone)	<ul style="list-style-type: none"> • Can find the object in response to the question, 'Where's the duck that says quack-quack?' or 'Where's the car that say brm?' • Begins to recognise some of these words independent of the set phrase and routine • Uses more of these symbolic sounds and attempts words in their own play and communication, without prompting, e.g., <i>Uh-oh, Ow!, No, Here-it-is, Sh!, Yuk!, Get down!, All-gone</i>
6. Joins in with language of social routines	<ul style="list-style-type: none"> • Will wave in response to the words 'bye-bye' (listening only) • Attempts social words such as hello, bye-bye, thank you, please
7. Understands that a questioning voice needs a response	<ul style="list-style-type: none"> • Nods or shakes head and may give a vocal response to yes/no questions • Responds appropriately to simple questions and requests, with either a vocalisation or action • E.g. <i>Do you want some more? Again? Looks around when asked, 'Where is it?'</i>
8. Demonstrates understanding of familiar phrases and simple instructions -strongly linked to context and routine (listening alone, without gestural clues)	<ul style="list-style-type: none"> • In play activities, can follow a simple instruction to do something; Clap hands, Bring the ball, Turn the page, Push the button • In everyday routines, will act appropriately in response to hearing familiar phrases such as, Bedtime, Be careful, Kiss mummy, Arms up, Go to sleep, Don't touch, Let's go, Eat up • Can point to parts of the body on request. 'Where's your.....nose, eyes?' etc. • Can follow instructions within a song such as, brush your hair, clean your teeth, touch your nose, wash your hands
9. Can select one item from a small set of familiar objects	<ul style="list-style-type: none"> • Understands that people and objects have names • Can find the correct toy animal from a small set of farm animals • Can give a food item to correct member of family or named child within a group • Can bring familiar objects, such as shoes on request • Can make a simple choice between two options e.g., 'Do you want orange or milk?' (by listening to the words)
10. Anticipates and enjoys the sequence of familiar stories and songs	<ul style="list-style-type: none"> • Shares books and can label and comment in response to adult requests • Is able to communicate that they know what is going to happen next in a familiar story • Shows anticipation

NAMES: Extended Examples

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MILESTONE 4: One to Two Years Post Implant

TARGET BEHAVIOUR	EXTENDED EXAMPLES
1. Sings fragments of familiar tunes and songs	<ul style="list-style-type: none"> E.g. 'Happy Birthday', 'Twinkle, twinkle little star', 'Row, row the boat,' 'If you're happy and you know it' with close approximations of some words
2. Understands simple, one step directions –without relying on context or predictable routine	<ul style="list-style-type: none"> Understands a range of instruction words without the adult needing to point or give non-verbal prompts, e.g., 'Get your...;', 'Give it to...;', 'Show me the...;', 'Find your...;', 'I need the...'
3. Constantly imitates fragments of what they hear (and overhear)	<ul style="list-style-type: none"> Typically echoes parts of phrases even if they don't understand all the words May echo the final words of what is said to them
4. Can complete simple auditory closure activities	<ul style="list-style-type: none"> Fills in the missing word at the end of familiar phrases, e.g., 'We all fall...;', 'Time for...' Can complete the last word in a predictable list, e.g., 'Find your pyjamas and your...' Completes repeated phrases in familiar stories, e.g., 'The little pig said...' Can contribute to plans about what is needed for a task, e.g., 'Lets make a sandwich. We need the bread and...' Enjoys games linking items together, e.g., 'The shoes and the...;', 'The boy and the...;', 'Your coat and your...;', 'Mummy and...'
5. Can pick out two objects from a set of familiar objects	<ul style="list-style-type: none"> Can select two toys from a mixed set, e.g., 'Can I have the teddy and the monkey?' Can give the correct food item to the correct toy, e.g., 'give the apple to the horse' Can remember a two item list
6. Responds to simple questions	<ul style="list-style-type: none"> Makes a simple but appropriate response to What? Where? Who? questions e.g., 'What's that dog doing?' 'Where is he?' 'Who's that?' Begins to answer questions such as 'What's that man doing?' with a verb Will attempt to explain or show you if you ask, 'What happened?' 'What's the matter?' Can provide a simple solution to a problem, e.g., can provide an answer to the question, 'what shall we do?' If drink is spilled, if a toy is lost or broken, etc.
7. Can pick out three objects at one time from a set of familiar items - at least 8 objects. Can repeat the list but may not be in the same order	<ul style="list-style-type: none"> Can remember and bring three linked items such as the dolly's bottle, blanket and nappy Understands the idea of, 'We need the plate, the spoon and the cup' Can remember and repeat simple lists for shopping Can remember simple chains of linked ideas, 'We need crisps for daddy and biscuits for mummy' Can make a suggestion for more objects to fit a category and use simple clues to help their recall, e.g., 'What else can you sit on?', 'What else goes on the road?', 'What else lives on a farm?', 'What else can you find in the playground?'
8. Can identify an object/person from a choice of at least four using two key features, i.e., its name and other quality such as colour or size or action. Understands simple negatives- e.g. not happy, no dinner. Demonstrates an understanding of possessives	<ul style="list-style-type: none"> From a mixed set of small/large teddies and dogs is able to select, 'the big teddy' or 'the small dog' From a mixed picture set of people and actions, can select, boy running, baby sleeping, etc. Notifies how negatives change the meaning, 'Who's got no dinner?' Can find an object on a picture to match a simple verbal clue, e.g., 'Can you see something orange that's swimming?' Understands and may begin to use two pieces of language information, not just labels, such as verbs and attributes, 'Where's...daddy running...baby crying...the broken car... the big boy' etc. Demonstrates understanding of important ideas such as, 'want/don't want, like/don't like' Understands the idea and some of the simpler language to indicate possession, such as 'mine, my, your, mummy's shoe'
9. Follows two part instructions. Can process the meaning of at least 3 key words at a time	<ul style="list-style-type: none"> Can process both pieces of information in one complete chunk Can process the meaning of at least 3 key words at a time, e.g., 'Find your new ball and give it to mummy, Put mummy's hat on the table; Clap hands and turn around' Can process longer amounts of linked information Put the socks in the drawer and the shoes in the cupboard Give teddy some orange juice and give monkey some milk Can share and understand a simple plan before carrying out an action, 'First we need to cut out the shapes and then stick them on the paper', 'First you need to put on your boots and then you can play in the garden'
10. Can complete a simple sequence of known events. Recounts events with adult support and prompts	<ul style="list-style-type: none"> Joins in with retells to other people about shared experiences, e.g., 'We went to the park and you...;', 'We're going to wash hands and then...;', 'Tell daddy what we saw at the shops. We saw a...' Can provide the solution, given the first part of the problem, e.g., 'This table is all messy we'll have to...' Can tell you something about what's happened or the things they are interested in. At this stage, the information might be quite jumbled and you will need to question and prompt to make sense of it



MILESTONE 5: Two to Three Years Post Implant

TARGET BEHAVIOUR	EXTENDED EXAMPLES
1. Overhears and responds appropriately to conversation not specifically directed towards them	<ul style="list-style-type: none"> Picks up new expressions and words which have not been specifically taught, e.g., from the playground or TV Spontaneously joins in the conversations of others by offering a relevant comment May ask questions to check what they have overheard or tell you that they don't understand what you are talking about Enjoys learning new words and trying them out in conversations
2. Can listen with attention across a number of conversational turns. Able to listen as part of a small group and to pick up the key messages and instructions alongside their peers. Understands in principle that in a group, everyone has to have a chance to talk and that you should listen to what they say	<ul style="list-style-type: none"> Can chat about a topic which interests them, giving information, asking and answering questions For a short while, can listen with attention to what others say in a small group and ask a question or add a comment to show they have been following Can retain information for a short while before carrying out tasks, e.g., tell mummy at home time that you need to bring your swimming things tomorrow Can listen as part of a group to a story without needing to constantly offer comments or ask questions
3. Able to have an age appropriate telephone conversation with a familiar adult	<ul style="list-style-type: none"> Can chat to a familiar adult and answer simple questions Can recognise a range of audiotaped environmental sounds (within the range of their experience) Can understand some of the words on simple tv programmes made specifically for young children (Not cartoons)
4. Enjoys memorising funny expressions, little rhymes and taking messages	<ul style="list-style-type: none"> Can remember lists of 4-5 items Enjoys repeating parts of nursery rhymes Can listen to a story and then select the correct pictures to create a three/four picture sequence Can play games which involve repeating phrases or simple sentences accurately after hearing them once
5. Can solve riddles which involve identifying objects on basis of 3 key features	<ul style="list-style-type: none"> Can identify an object by description, from a selection of pictures or a large set of things (closed set) Can guess an object from the description only, [open set] e.g. I'm thinking of an animal that lives on a farm and gives us milk Able to play simple version of 'I spy' type games
6. Follows more complex instructions and questions which involve understanding a range of grammatical features and the ability to sequence information and events. (Delivered at normal conversational rate for age- no undue use of stress to add meaning or break down task into smaller chunks.)	<ul style="list-style-type: none"> Able to understand information about the order in which to do things, e.g., before/after, first, next, last, now E.g. 'First put your reading book away and then sit down on the carpet', 'Who went over the bridge first and what happened to him?'



MILESTONE 5: Two to Three Years Post Implant

<p>7. Can answer a range of simple questions about themselves. Understands simple 'why' questions and can make an appropriate response</p>	<ul style="list-style-type: none"> • Can give full name, age and say where they live • Can answer 'why' questions in relation to real events or stories e.g., 'Why do you think that the boy didn't want to share his sweets?' • Can begin to answer 'why' questions to show a more general understanding of the world around, e.g., 'Why do we need to put petrol in the car?', 'Why do you need to wear a coat and hat in the winter?', 'Why do you need to say sorry to your friend?' • Can begin to answer questions such as, 'What do you think?', 'What might happen?', (Begins to ask why questions themselves)
<p>8. Notices deliberate mistakes in familiar spoken language routines and stories</p>	<ul style="list-style-type: none"> • Can listen to a story and answer questions about the content and the characters, e.g., 'When Goldilocks went into the bears' house what did she do first?', 'What happened at the end of the story?', 'Who was being naughty in that story? Why do you think so?' • Notices small mistakes in familiar stories, both related to content, word choice or grammar e.g., 'First Goldilocks ate Baby Bear's porridge', 'Goldilocks walked into the house', 'Goldilocks climbed under the bed to sleep' • Notices and sometimes asks about words they don't understand, e.g., 'What's a palace?' • Can say if something is silly or sensible, e.g., 'Is Grandma a baby?'
<p>9. Has favourite stories, often repeated. Remembers and uses phrases from stories</p>	<ul style="list-style-type: none"> • Can follow a simple retell of a story or event beyond the 'here and now' without relying on props such as an object, photo or books • Can talk about their favourite stories and say what they like about them • Can take the part of a character in a familiar story, e.g., 'What did Daddy Bear say when he saw Goldilocks in the bed?' • Can talk simply about what characters were feeling or thinking, e.g., 'How did Jack feel when he saw the giant?'
<p>10. Can complete a simple sequence of known events. Recounts events with adult support and prompts</p>	<ul style="list-style-type: none"> • Understands and responds to 'Tell me what happened?' by giving a fairly clear account. • Can give news around a specific topic, e.g., 'What did you do at nursery?', 'How did you make this model?' • Can sequence some of the key information into the correct order • Can answer questions and use words to place events in time-may not yet be very accurate, e.g., 'yesterday, before, a long time ago, a bit later, after, first, last, soon, 'When are we going to see grandma?', 'What did we do yesterday that I asked you to remember?' • Attempts to signal simple past and future tense within verbs

