

A curriculum for multi-sensory- impaired children

from
MSI Unit
Victoria School
Birmingham

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sense
for deafblind people



The MSI Unit is based at Victoria School and Specialist Arts College in Birmingham. Victoria is a special school serving the needs of pupils aged 2-19 with physical, sensory and multiple disabilities.

**A curriculum for multi-sensory-impaired children
from MSI Unit Victoria School Birmingham**

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Foreword

As current Co-ordinator of the MSI Unit at Victoria I would like to pay tribute to those who initially set up the Unit and to those whose support has sustained it. Their vision has enabled the practice embodied in this curriculum to develop. We have also been very fortunate in the commitment and insight of all the staff who have worked with our pupils during the past 16 years.

Heather has been connected with the Unit throughout its life. Her input in training us and latterly working directly with our pupils has been a huge asset. Because we have developed a distinct way of working it has been something of a dream to write down 'what we do', 'how we do it' and 'why we do it'. This would never have become a reality without Heather's offer to formalise our work into the curriculum document we can share, which has now been achieved. It has been a monumental task to which Heather has given months and months of her own time and skill.

We now have a superb curriculum with which to support work with pupils with MSI; for this we owe Heather an immense debt of gratitude.

Rosie McMinn
MSI Unit Co-ordinator

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MSI Unit Curriculum

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Introduction

About us – Birmingham MSI Unit at Victoria School

The Birmingham MSI Unit, based at Victoria School, is a regional resource serving five local authorities. Pupils attending the Unit have multi-sensory impairment (MSI) – combined hearing and visual impairments, often with additional physical, sensory, medical and/or learning difficulties. Pupils have some degree of independent mobility (by any method).

The Unit is one of a handful of specialist MSI facilities in the UK, and is a centre of excellence. Teaching staff at the Unit hold additional specialist qualifications including the mandatory qualifications in hearing impairment, visual impairment and multi-sensory impairment. Staffing and expertise levels are high. The Unit regularly hosts visits and teaching placements by staff specialising in MSI from the UK and overseas.

In order to meet the specific needs of pupils with MSI, the Unit follows a different curriculum from the main school, described in the most recent OFSTED inspection as an

excellent curriculum specifically for pupils with multi-sensory impairments.

(June 2007)

It addresses the particular learning needs of pupils with MSI who are working at P Levels P1-P8 in order to give them the awareness, experience, understanding and learning skills they need to access National Curriculum programmes of study successfully. Pupils who complete the MSI Unit curriculum follow a modified form of the National Curriculum with additional elements to meet their specific needs.

Development of the Curriculum

The Curriculum is not a new project in terms of practice within the MSI Unit. We have changed nothing in terms of what we do. Our new venture has been to structure and formalise our practice onto paper, to make it accessible to others and to help our planning and evaluation.

The Curriculum was developed in a culture of detailed observation of pupils and constant discussion of teaching and learning practices and underpinning theory (see 'Sources and resources' below). In this context, further discussions helped to identify the key factors in supporting pupils' learning and to differentiate the four Phases and eight domains. The Curriculum was drafted and repeatedly revised until we felt that it accurately reflected our practice. The Profiles were developed to formalise our assessments of progress and our evaluations of pupils' strengths and current needs. They were drafted, trialled, evaluated and redrafted until they accurately reflected pupils' relative strengths and their progress through the Curriculum.

Once Victoria School's 2007 Ofsted inspection had approved the Curriculum, describing it as 'excellent', it was offered for pilot to MSI specialists working in other settings. We wanted to know whether it was of use to staff elsewhere, or whether it was too dependent on high levels of expertise, flexibility, staffing and resources. Teachers from ten settings (including small specialist MSI Units, schools for pupils with learning difficulties including pupils with MSI, advisory services supporting a range of settings, services for pre-school children and home education) trialled the Curriculum in full or in part and returned detailed feedback.

Most comments were positive – for example:

- *the structure and presentation are accessible and user-friendly;*
- *the domains are appropriate and useful in thinking about the learning of pupils with MSI;*
- *the Profile summary sheets are clear and informative;*
- *it is potentially useful for children with complex needs other than MSI;*
- *it has great potential as an awareness and training document;*
- *the Profile is useful for thinking about specific aspects of a child's development and highlighting which areas could be focused on next;*
- *it has proved useful in structuring discussion (between specialists and non-specialists) about individual pupils' MSI-related needs;*

- *it has helped teaching assistants understand the rationale behind work with pupils with MSI, and make their own suggestions regarding good practice;*
- *it can be used alongside other curricula because of the emphasis on how to rather than what to teach.*

Some of the concerns expressed by participants have been addressed in this final revision – for example, by adding the case studies and glossary. Others are less malleable:

- *implementing the Curriculum in full depends on staffing and the ability to structure the timetable and the physical environment appropriately;*
- *some Profile items depend on the organisation of the child's curriculum and cannot be assessed for children not taught in the way described in the MSI Unit Curriculum;*
- *implementing the Curriculum for pupils at early Phases depends on a good knowledge of the early stages of child development, because of the need to devise own content;*
- *Phase 1 of the Profile represents quite an advanced level for pupils with PMLD;*
- *it covers MSI-related needs well, but for children with significant other needs (especially at Phase 1) it might need supplementing.*

For some pupils and for some staff, the MSI Unit Curriculum may form a useful but not sufficient resource. The 'Sources and resources' section below suggests some relevant additional materials.

We hope that the Curriculum is of use to others. It is fundamentally an account of practice which has helped pupils with MSI to progress over a number of years. In the pilot study feedback, we were particularly pleased by the comments which suggested that the Curriculum can help to extend understanding of MSI. We hope that it is of use to you.

Sources and resources

The Curriculum draws from a wide range of sources on the learning, development and successful teaching of children with MSI, and on the knowledge and expertise developed in work at the Victoria MSI Unit.

Sources of ideas and strategies include:

- the University of Birmingham BPhil and Diploma courses in the Education of Children with MSI;
- the work of Jan van Dijk from 1965 to the present day;
- accounts of developmental progress in children with MSI by numerous specialists including Brown, Goode, McInnes and Treffry, Nafstad and Rodbroe and Wyman;
- curricular models developed by MSI specialists in the UK and overseas, including McInnes and Treffry, Nielsen, Nind and Hewett and staff at Whitefield school;
- research and guidance developed by Sense, QCA, the DCSF and others;
- numerous conference and journal papers;
- numerous websites including SENSE (www.sense.org.uk); the Scottish Sensory Centre (www.ssc.mhie.ac.uk); DBLink (www.tr.wou.edu/dblink) and A Deafblindness Web Resource (www.deafblind.co.uk).

Routes for Learning and the Whitefield School Curriculum Framework were developed within the same time period as the MSI Unit Curriculum. The three are rooted in very similar models of early child development, and have the potential to be used in combination.

Effects of MSI on learning

People with MSI have both hearing and visual impairments. Hearing and sight are our primary means of gaining information from the environment, particularly beyond arm's reach. MSI, therefore, creates enormous disadvantage for children in terms of knowing where they are, and what is happening to and around them. Any type or degree of combined sight and hearing impairment can create this disadvantage – impairments may range from mild to profound, may fluctuate or cause consistent loss, and may affect the reception and/or processing of sensory information.

Because MSI affects children's ability to gain information from and about their environment, it slows the pace of learning, affecting especially

- communication and the development of relationships;
- mobility and interaction with the physical environment;

- the processing and integration of information from residual hearing, vision and other senses;
- the perception of time and space;
- the transfer and generalisation of skills and concepts;
- the development of abstract reasoning.

Additional disabilities often accompany MSI – further sensory impairments (for example of touch, balance and/or smell), physical disabilities, complex medical needs and/or learning difficulties. These compound the problems described above.

Pupils with combined hearing and visual impairments often show patterns of development very unlike those of typically developing children. Whilst their underlying conceptual and communicative development almost certainly follow similar paths, their behaviours may be entirely different. This is because of the different demands and opportunities offered by an environment perceived through intact senses, and one perceived through the filter of MSI. The skills and concepts demonstrated in, for example, building a tower of blocks, are very different for children with full sight and hearing and those without. Children with full sight and hearing, for example, will use hand-eye co-ordination in building the tower, whilst a child with MSI may rely on touch and spatial memory. For sighted hearing children, tower-building resonates with familiar structures such as piles of laundry and stacks of plates. Children with MSI generally have no access to incidental information, and will only know about these other towers if they have been shown them, deliberately, many times.

The interests and preferences of children with MSI are also likely to differ from those of their typically developing peers. Children with MSI share the universal drives to understand, anticipate and control the events affecting them and to observe, interact with and learn from their environment, but they are hugely disadvantaged in doing so. By the time typically developing children begin school, they have developed a huge range of skills and concepts, including the learning skills needed to understand and integrate new experiences. Pupils with MSI, in contrast, very often lack the familiarity with everyday concepts which most curricular models assume will be established by the time they start school, and also lack the learning skills and structures needed to benefit from experiences. The MSI Unit Curriculum is designed to address these issues.

Curriculum requirements

In order to meet their specific learning needs, a curriculum designed for pupils with MSI must:

- begin from a very limited knowledge base;
- include the teaching of strategies for interacting with the social and physical environment;
- provide frequent repetition and redundancy of information;
- be accessible by pupils with any combination of sensory impairments;
- emphasise a sense of self, agency and negotiation;
- offer breadth, balance and relevance;
- link learning opportunities to support the generalisation of concepts;
- encourage progression in terms both of new learning and of the extended application of existing learning.

Pupils with MSI need to learn how to interact with and understand the world around them. Many need to develop compensatory strategies for learning (for example, learning to use information gained through touch to supplement poor-quality visual information). These strategies manifest as functionally equivalent behaviours – behaviours which use the same abilities, or serve the same purposes, as different behaviours used by typically developing children.

The MSI Unit Curriculum aims to give pupils the awareness, experience and learning skills they need to access National Curriculum programmes of study successfully. It is primarily an access curriculum for pupils with MSI working at P Levels P1-P8, underpinning the National Curriculum for this group.

It is also a developmental curriculum, aiming to assist pupils' development especially in areas where MSI causes particular disadvantage. This may be by helping pupils to acquire the concepts and strategies used by typically developing children, or by identifying and teaching alternative strategies and concepts which will perform the same functions. Like other recently-developed curriculum and assessment materials for pupils with complex needs, the MSI Unit Curriculum is rooted in a transactional model of development emphasising interaction between the individual and the environment.

Curriculum content

The MSI Unit Curriculum is divided into eight domains, each addressing a specific aspect of learning. The domains are:

- *social relationships and emotional development;*
- *communication;*
- *conceptual development;*
- *sensory responses;*
- *understanding of time and place;*
- *orientation, movement and mobility;*
- *ownership of learning;*
- *responses to routines and changes.*

Some of these (for example, *communication, conceptual development*) are equally relevant for all children. Others (for example, *sensory responses, understanding of time and place, responses to routines and changes*) have particular relevance for pupils with MSI.

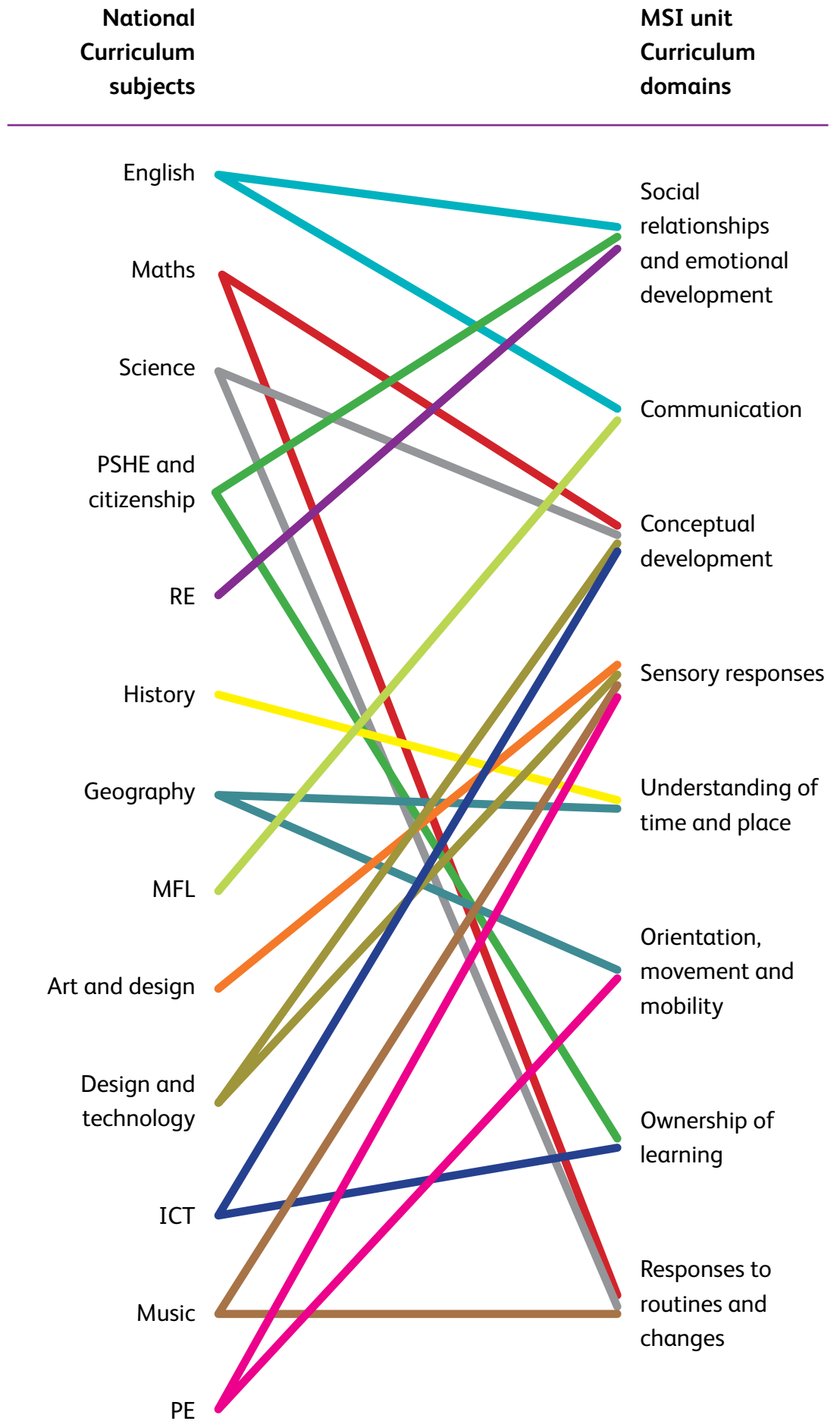
The domains do not map directly onto National Curriculum subjects but the same areas are covered overall, with additional input addressing MSI-specific needs. A broad mapping showing the primary links is shown opposite:

The MSI Unit Curriculum is less prescriptive than many models, and does not include specific schemes of work. Instead it describes how a pupil's learning will be structured and managed, by means including:

- staff behaviour and expectations;
- teaching environments;
- teaching objectives and strategies;
- timetabling;
- the complexity of information provided to pupils;
- the balance of group and individual work.

This approach allows for considerable flexibility in curriculum delivery. In turn this means that the Curriculum is appropriate for pupils with any combination of hearing, visual and other sensory impairments and does not, for example, limit the participation of pupils with no sight.

The four case studies included with the Curriculum show how it works in practice. Each pupil has an individual timetable, with activities chosen to meet specific learning needs. Pupils' sensory and other abilities, their ages, strengths and



preferences, are all taken into account in selecting activities. All learning activities are cross-curricular, to assist pupils to generalise and transfer concepts and skills. Group activities may involve pupils selected from a range of class groups, whose strengths and needs create a natural group for the activity in question. Many pupils spend carefully chosen sessions included with groups of students from main school classes or the neighbouring school for hearing-impaired children (see 'Planning inclusion for children with MSI' by Heather Murdoch, *Special Children*, 157, Nov-Dec 2003).

An important aspect of the *Ownership of learning* domain is the development of pupils' abilities to identify the help they need and communicate this to others. Some pupils complete the Curriculum and move on; others continue to work at appropriate Phases until they leave school for adult services. In either case, it cannot be assumed that students will continue in specialist MSI settings where their needs are understood by all around them, so they need to learn how to access and use support appropriately.

Breadth, balance and relevance

Breadth: Breadth of curriculum is provided by the range of curriculum domains, which underpin National Curriculum subject areas and also include MSI-specific skills and concepts such as perceptual development and mobility. Inclusion with other class groups for specific activities (in the main school or the neighbouring school for hearing-impaired pupils) provides additional breadth of curriculum to meet specific individual needs. Pupils also access school-wide workshops, performances and celebrations.

Balance: Each pupil's timetable is individually planned to ensure an appropriate balance of learning activities, and annual targets and termly IEP targets address a range of subjects. Lesson planning is cross-curricular, to promote the development of generalisation and to reduce the problems of prompt-dependency and context-dependency which limit the learning of many pupils with MSI. Schemes of work specify the range of curricular areas addressed, so that the overall balance for individual pupils can be evaluated.

Relevance: Pupils with MSI typically have difficulty accessing experiences which are beyond the immediate, present and familiar. The MSI Unit curriculum emphasises learning rooted in pupils' own direct experience, thus ensuring relevance, and the transfer and generalisation of skills are specifically taught. Cross-class timetabling allows pupils from different class bases to form groups for specific activities which meet particular needs. The curriculum offers sufficient flexibility to meet individual learning needs based on profiles of ability and disability.

Older students

Students aged 14-19 who are working at P Levels continue to follow the MSI Unit Curriculum, but the context of their learning gradually changes.

Planning continues to follow individual needs, but students' learning experiences are tailored to support their transition from school to adult placement. More use may be made of community facilities, for example, and learning in particular domains (notably *Ownership of learning* and *Responses to routines and changes*) may be prioritised.

Students work on ASDAN Transition Challenge or Towards Independence awards, and teaching activities reflect this work and also the aims and activities detailed in their Transition Plans. Their opportunities for inclusion will include working with students from the main school post-16 provision. As they approach school leaving, a phased transition to adult services is likely to include time spent at their future placement with support from Unit staff.

Every Child Matters outcomes

The Curriculum also helps pupils with MSI to achieve the outcomes identified in Every Child Matters: being healthy, staying safe, enjoying and achieving, making a positive contribution, and preparing for future economic well-being. The MSI Unit Curriculum promotes these outcomes by providing:

- appropriately planned and delivered activities which enable pupils to succeed and progress;
- a highly responsive environment which treats all behaviour as communicative and helps pupils to develop appropriate and effective means of communication;
- an emphasis on practical, relevant activities which enable pupils to access concepts of health and safety;
- specific support to develop self-confidence and positive relationships with others and to deal with life changes and challenges.
- an increasing emphasis on autonomy and interdependence with age, including learning how to access and direct support appropriately when needed.

Progression

The Curriculum is divided into four Phases. The Phases reflect the developmental progression most commonly seen in children with MSI, whose common feature is that they lack consistent, undistorted sensory input from their physical and social environment.

Because MSI is linked to particular patterns of learning and development, exact equivalences are not possible, but approximate links to stages of communicative development and P Levels are given below:

MSI Unit Curriculum	communicative stage	P Level range
Phase 1	pre-intentional	P1(i)-P2(ii)
Phase 2	intentional non-symbolic	P2(i)-P3(ii)
Phase 3	early symbolic	P3(ii)-P6
Phase 4	formal	P5-P8

The four Curriculum Phases reflect pupils' increasingly complex understanding of their environment. Each Phase is characterised by a series of 'features of learning', which describe how pupils entering this Phase access and interact with their social and physical environment. The early Phases of the curriculum support the gradual development of awareness, interest and competence in interaction, whilst later Phases are increasingly differentiated as pupils become more able to recognise and deal with a range of people, activities and contexts.

Assessment of progress within and across Phases

The progress of pupils within each Curriculum Phase is recorded using the Phase Profile. The Profiles consist of 'typical achievements' which suggest that the pupil has mastered the skills, concepts and global understanding associated with each Phase. There is no attempt to list all relevant achievements, and some of the items listed are specific to the MSI Unit Curriculum. The Profiles are criterion-referenced measures of progress, not developmental checklists.

For each typical achievement, three levels of mastery are recorded:

- *aware* – the pupil shows signs of being ready to learn the ability;
- *achieved in specific contexts* – the pupil consistently uses the ability in some, but not all, relevant situations;
- *generalised* – the pupil consistently uses the ability in all appropriate situations.

The emphasis on generalisation is because this is a particular problem for pupils with MSI, and one of the reasons why they tend to show considerable scatter on P Scale assessment.

Pupils generally work within one Phase. They may work across two Phases as they reach the end of a Phase or if they have specific islands of high ability.

A range of other assessment strategies may be used to complement Curriculum Phase assessment, and to check its accuracy for individual pupils. These strategies may include:

- P Scale assessment
- global assessment scales for pupils with MSI (for example, *Callier-Azusa (G)*)
- communication assessment tools (for example, *Callier-Azusa (H)*, *PVCS*, *Manchester Pragmatics Profile*)
- sensory function assessment tools (for example, *Vision for Doing*, *He can hear when he wants to*)
- observation and recording against IEP targets
- daily observation and recording against lesson plan objectives

Students working at Phase 1

Pupils working at Phase 1 form two groups: those who will move on to Phase 2 or beyond, and those who will continue to work at Phase 1 in the long-term. The characteristics and needs of the two groups differ in a number of ways:

- *Students predicted to move on to Phase 2 or beyond*

Some pupils enter the Unit working at Phase 1 because they are young; others because they have not had the learning experiences they need to progress beyond this stage. For these pupils, the MSI Unit curriculum provides an appropriate framework for their learning in all areas. When there is doubt about students' ability to progress beyond Phase 1, they follow the MSI Unit Curriculum until the doubt is resolved.

- *Students working long-term at Phase 1*

The Victoria MSI Unit has no students continuing to work wholly within Phase 1, although many have progressed through this Phase. Students who continue to work at Phase 1 in the long-term invariably have profound needs in other areas as well as MSI. A curriculum designed to meet MSI-related needs can only provide a part of their overall programme, because other aspects (for example, motor education) are of equal importance.

At Victoria the needs of these students are best met in the main school (for pupils with physical disabilities and additional needs) with specialist support from Unit staff. Elements of the MSI Unit Curriculum are used in tandem with other approaches. Similarly, the Phase 1 Profile is likely to be useful but not sufficient for these students.

Routes for Learning

Routes for Learning and the MSI Unit Curriculum have the same underpinning developmental framework, which stresses interaction between the child and the environment and the development of compensatory strategies to overcome barriers to learning. Although *Routes for Learning* is an assessment measure, it includes teaching strategies for each step and offers a series of potential routes through steps in progression. The MSI Unit Curriculum, similarly, addresses the development of learning skills through functionally equivalent behaviours. The two measures are highly compatible, and at the time of writing using both in tandem seems the best approach for students with MSI working long-term at Phase 1.

Pupils working at Phase 2 and beyond are likely to need their MSI-related difficulties addressed as a priority in order to access and interpret learning experiences. *Routes for Learning* remains a relevant and MSI-friendly measure for assessing progress.

Teaching approaches

A number of specialist approaches and techniques have been developed in work with pupils with MSI. Some of these, such as Intensive Interaction and the use of Objects of Reference, have since become more widely used in the field of complex learning difficulties. Those used in the MSI Unit are outlined below:

- consistent, well-cued routines supporting the development of anticipation, communication and control by the pupil. At later stages, routines may be deliberately sabotaged to promote spontaneous responses by pupils (*routine mismatch*).
- an early emphasis on sources of security and stability, both in terms of people (initially one or two main keyworkers) and environments (initially including restricted spaces designed to reflect the child's skills and interests)
- the 'van Dijk approach', which emphasises movement-based learning, through the stages of *resonance, co-active movement, modelling and imitation*.
- *Intensive Interaction*, where a pupil's actions are reflected by the adult to create a shared topic of communication.
- a wide range of communication modes including BSL; speech; object, photo or picture symbols; print, Moon, Braille or graphics; gesture, and non-verbal communication. Pupils may use a range of modes, and may use different modes for receptive and expressive communication.
- the interpretation of pupils' behaviour as communicative, whether or not it is intended as such. This applies especially to pupils at early developmental stages and those with challenging behaviour.
- matching the pace of interaction to the child's sensory needs. Pupils with reduced or distorted sight and hearing take far longer to understand, interpret and respond to visual and auditory signals.
- management of the physical and social environment to provide optimal visual and auditory conditions and to minimise extraneous information. As pupils progress, they also experience less optimal environments and are taught how to identify and implement changes to improve these (for example, by switching on lights).

- the use of cues and prompts, faded over time as pupils become more competent and confident. Pupils move from working *co-actively* (as one with an adult) to working *co-operatively* (where each contributes to the same activity) to working *reactively* (separately but alongside each other).
- a cross-curricular approach to lesson planning which supports the development of generalisation by presenting the same concept many times in different contexts. The cross-curricular approach also reduces problems of prompt-dependency and context-dependency.
- at later stages, the use of wider school resources, in terms of specialist staff, equipment and environments and the inclusion of MSI Unit pupils with those from the main school or other nearby schools for specific activities.

The use of these approaches is supported by the availability of:

- a high staff:pupil ratio (at least 2:3);
- a system of keyworkers for each pupil, to enable the development of trusting relationships and effective communication.

Staff from a range of disciplines (educational, therapeutic, medical) work together to plan and deliver programmes for individual pupils. Effective transdisciplinary working is central to meeting pupils' complex needs (see 'Working together: Making it work', by Heather Murdoch, *PMLD Link* 18,1 Spring 2006).

Curriculum content

How to use the curriculum

The Curriculum is divided into four Phases. Each Phase begins with a series of 'features of learning', which describe how pupils entering this Phase typically access and interact with their social and physical environment. Most pupils will be working wholly within a particular Phase, although some (those nearing the end of a Phase or with islands of higher ability) may be working across two Phases. If there is doubt as to which Phase a pupil is working at, the Profiles should provide clarification.

The main body of the Curriculum addresses how to help pupils progress from their current Phase to the next Phase. There are eight Curriculum domains:

- social relationships and emotional development;
- communication;
- conceptual development;
- sensory responses;
- understanding of time and place;
- orientation, movement and mobility;
- ownership of learning;
- responses to routines and changes.

For any given Phase, the eight domains each begin with a re-statement and expansion of the relevant feature of learning, then go on to describe the approaches and strategies used in the MSI Unit to support pupils' development from this point.

The approaches and strategies listed are rarely content-specific. Rather, they are usually means of surmounting or diverting around MSI-related obstacles to learning. The aim is that pupils learn the skills and concepts they need and simultaneously learn how to acquire, link and take ownership of new skills and concepts in the future. The specific activities and content used in this process will vary with pupils' sensory and other abilities, their ages, strengths and preferences. Examples of practice are given in the case studies presented at the end of each Phase. The underpinning principles are of starting from where pupils are, working within their zones of proximal development (ZPD) and enabling them to lead the learning process whenever possible.

Each Curriculum Phase has a linked Profile, used to evaluate ongoing progress, identify individual strengths, needs and teaching priorities and confirm pupils' progress from one Phase to the next. The Profiles consist of sets of typical achievements which suggest that a pupil has mastered the skills and concepts associated with each Phase. They are criterion-referenced assessments, linked to the MSI Unit Curriculum, not generic developmental measures.

MSI Unit Curriculum: Phase 1

Features of learning on entry to Phase 1

Pupils at Phase 1 of the MSI Curriculum are generally working between P Levels P1(i)- P2(ii). The learning of pupils entering Phase 1 usually has the following distinctive features:

- **Social relationships and emotional development**
Pupils act upon their own needs and feelings, but without intention. They are aware of adults and are intermittently aware of the sight, sound, smell or feel of peers.
- **Communication**
Pupils' communication is pre-intentional (reflexive or reactive).
- **Conceptual development**
Pupils' behaviour is largely state-driven and highly repetitive.
- **Sensory responses**
Pupils are aware of input from residual sight, hearing and/or other senses – they show reflexive responses.
- **Understanding of time and place**
Pupils respond positively, negatively or passively to immediate sensations. They respond to rhythm through available sensory channels and their activity has bursts and pauses.
- **Orientation, movement and mobility**
Pupils' movements are not directed towards particular purposes. They are aware of some sensations from their environment but cannot organise or integrate these.
- **Ownership of learning**
Pupils are pre-intentional in their actions.
- **Responses to routines and changes**
Pupils need the security of familiar keyworkers, routines and environments.

Pupils at Phase 1 work with one or two keyworkers on a daily programme in their teaching base room. Learning activities emphasise the development of trusting relationships.

MSI Unit Curriculum: Phase 1

The MSI Unit Curriculum for pupils at Phase 1 seeks to develop their learning as follows:

Social relationships and emotional development

Pupils act upon their own needs and feelings, but without intention. They are aware of adults and are intermittently aware of the sight, sound, smell or feel of peers.

Pupils have one main keyworker and at least one other who provides cover when needed. Pupils work with a very limited number of staff overall.

Whenever staff approach pupils, they stop within sensing distance to give the pupil time to adjust to the idea that someone is approaching. Staff wait for some indication of awareness before moving closer and touching the pupil.

All staff use personal identifiers (for example, a bracelet unlike that worn by anyone else). Identifiers are always used, and always drawn to the pupil's attention on first meeting and whenever appropriate during the interaction.

Keyworkers have specific individual greetings routines which they always use on meeting the pupil (for example, approaching, stopping and waiting for a response indicating awareness, then blowing gently on the back of the pupil's hand).

Keyworkers build relationships with pupils by responding consistently to their actions and so developing pupils' trust in them. This process takes considerable time and cannot be hurried. At this stage, interaction with another person is a demanding activity in its own right.

Staff respond to pupils' reactions to peers (for example, with calm touch and 'You heard Alicia shouting' in response to a pupil's stilling or startling, then removing the pupil to an area or activity that calms them).

Group sessions (for example, greetings sessions) involve only 2 or 3 pupils, each supported individually, and the focus of such sessions is on awareness of others. In other sessions (for example, messy play) pupils may be carrying out the same activity simultaneously, but each pupil works individually and is not expected to attend to their peers.

Communication

Pupils' communication is pre-intentional (reflexive or reactive).

They are not aware that they can change the environment by influencing other people's behaviour.

Pupils are always given the time they need to receive, identify and respond to cues and personal identifiers. This may take minutes rather than seconds.

Staff use specific signals (developed from an agreed set of on-body signs) to signify 'more', 'stop' (a pause within an activity) and 'finish' (the end of the activity). These are used consistently, initially to allow pupils to become aware of the signals through exposure and with no expectation that they will respond.

Pupils' behaviour is always treated as communicative, and staff always respond in ways that have meaning for the pupil. Even when staff are unsure of a behaviour's meaning, they indicate as clearly as possible that the pupil's 'voice' has been heard, often by reflecting the same behaviour back to the pupil.

Pupils' daily timetables include opportunities for them to lead interaction with their keyworker. The keyworker's role is to listen actively with all their senses and reflect /respond to the pupil's behaviour (as in Intensive Interaction).

Staff take time to observe pupils' responses and to identify consistencies and inconsistencies over time. Pupils' ways of expressing acceptance, rejection and withdrawal are noted and always responded to. The factors affecting a pupil's responses (for example, pain, background noise, medication) are identified and minimised where possible.

Conceptual development

Pupils' behaviour is largely state-driven and highly repetitive.

They may repeat actions on objects, but without intention.

Each activity is developed as a routine, carried out in the same way each time. Particular care is taken to start and end the activity in exactly the same way each time. The cues and actions within the routine are chosen to be as pleasurable as possible for the pupil. It is recognised that changing one element of an activity may endanger the pupil's understanding of the whole, and may frighten or threaten the pupil.

Any responses by pupils to changes in the environment (eg: pause in mouthing object when classroom lights are turned on) are noted and reinforced by staff.

Pupils' repetitive behaviours are closely observed and analysed to give information about their interests and preferences. Staff use this knowledge when interacting with pupils – for example, using action songs such as 'Row,

row, row the boat' with a pupil who rocks. Information from observing repetitive behaviours is also used in choosing objects for use with pupils – for example, a pupil who shakes objects may be introduced to different soundmakers over time; a pupil who likes stroking hair may be willing to explore fur fabric.

Many pupils begin exploration of the environment by exploring the faces of trusted adults. Close examination of keyworkers' faces (or other acceptable body areas) by pupils using sight and/or touch is accepted and used as part of their interaction.

Staff model different ways of exploring objects and show pupils different features, but do not expect pupils to follow their lead. Objects are presented in a consistent place and manner. They may be anchored (usually clamped to a table or tray) to help pupils explore them without needing to control their position. Any interaction with an object or person is accepted as long as it is not harmful or painful – so, for example, sucking, mouthing or licking objects is interpreted as exploration and is not discouraged.

Pupils are given frequent opportunities to experience cause and effect, with care taken to ensure that effects rapidly and reliably follow causes. Particular care is taken that pupils with more severe or fluctuating sensory impairments can consistently see/hear/feel the effects of their actions.

Sensory responses

Pupils are aware of input from residual sight, hearing and/or other senses – they show reflexive responses.

They attend intermittently to stimuli. They generally respond to only one sense at a time.

The environments which pupils use are kept uncluttered, visually and auditorily. This needs considerable commitment from staff, particularly in minimising extraneous noise.

Many pupils show a significant delay in responding to stimuli. Staff habitually wait for pupils to respond, for as long as necessary. Responses may be small and fleeting – for example, a momentary hand movement.

People and items are presented slowly and clearly to pupils, in familiar, quiet environments. Many pupils cannot attend to an item or sound if other sights or sounds compete.

Close sensory cues (for example, warmth, breath, contact with an adult's body) are used to support pupils' use of sight and/or hearing.

Pupils' sensory responses are logged, together with details of the context of the response (activity, time of day, positioning etc.). When new responses are seen, the conditions at the time are recreated as far as possible to maximise the chance of the response being repeated.

Pupils' emergent sensory preferences (for example, for particular colours, textures and/or frequencies) are identified and encouraged. Strong preferences are used in choosing appropriate cues for individual pupils to use (for example, objects, pictures, photos, symbols, songs, actions and/or scents).

Pupils are not expected to do two things at once – for example, to attend jointly to an adult and an object, or to look at a toy they are listening to. Shifting attention between an adult and an object is introduced as an activity in its own right, and pupils are given as much time as they need to make each shift.

Understanding of time and place

Pupils respond positively, negatively or passively to immediate sensations. They respond to rhythm through available sensory channels and their activity has bursts and pauses.

They have no clear understanding of 'an activity' or where one activity ends and another begins.

Rhythm is used in many activities (for example, rocking, drumming, singing, massage), to help pupils develop a sense of time and order.

Pupils' timetables follow the same sequence each day. Activities follow set routines to help pupils anticipate what will happen to them next.

Staff use pupils' own objects (for example, their cup or spoon) as objects of reference (ORs) to represent activities. These may be shown to pupils just before an activity starts, to cue the pupil in to the new activity. Action sequences taken from the actions performed during the activity (for example, bouncing arms up and down for jumping), and/or relevant songs and scents, may be used as well or instead, especially for pupils who find it hard to interact with objects. Initially these cues are used to mark the beginnings (and ends) of activities rather than to distinguish specific activities.

Pupils work and eat within their class base. The use of specialist teaching rooms is kept to a minimum (for example, hydrotherapy pool; bathroom). They do not generally attend one-off celebrations or whole-school events.

Pupils have a designated space in the classroom, with clear boundaries, often in the form of 'walls' which the pupil can touch by reaching out. Each pupil's space is designed to reflect their personal sensory preference (for example, soft or hard surfaces). The layout of this designated space, and the objects available within it, are kept consistently the same. Pupils move out from their designated space to participate in activities, and are helped to retreat back to their space at any point if necessary.

Some pupils enjoy very small environments such as large cardboard boxes or Little Rooms, where the boundaries of the environment are immediately accessible. Any objects used in such spaces are anchored so that pupils can return to them and are kept unchanged unless the pupil is supported by a familiar adult.

Orientation, movement and mobility

Pupils' movements are not directed towards particular purposes. They are aware of some sensations from their environment but cannot organise or integrate these.

They do not reliably differentiate between self and environment.

Massage is used to help develop pupils' awareness of different parts of their bodies. Coactive movement is used to extend pupils' movement patterns gradually.

Pupils have their own designated space within the classroom with clear boundaries. Staff reinforce and develop any attempts by pupils to navigate this environment (for example to reach a favourite cloth or toy) by helping the pupil to move towards the item, rather than by bringing the item to the pupil.

Reactive physical environments are used to emphasise the boundaries between pupils and their environments. Settings are chosen on the basis of individual needs – for example, pupils with high levels of movement may respond well to environments with clear, comfortable boundaries, such as huge cardboard boxes.

Highly reactive environments such as resonance boards may be used for early work on orientation and location of objects with pupils who tolerate the amplified vibrations well.

Staff assist pupils to explore aspects of the classroom environment, such as floor surfaces. The aspects to be explored are chosen on the basis of pupils' sensory and movement preferences (for example, using pupils' highly repetitive movements), and initially the exploration is likely to be fleeting.

Pupils move or are moved around their environment at a pace that allows them to orientate themselves – this may be very slow. Additional time is allowed when necessary (for example, for travelling to the school door at the end of the day).

Consistent routes are used for travel outside the classroom. Landmarks which are accessible to the pupil are identified and the pupil's attention drawn to them on every journey. Landmarks may be visual, tactile, kinaesthetic/proprioceptive (for example, movement up a ramp) or involve air currents or scents – if the latter, the draught or scent must be available to the pupil on every journey. The smell of dinner cooking, for example, is a good landmark for the journey to the dining room at lunchtime, but a poor marker of the route to the bathroom undertaken at intervals throughout the day.

Pupils may need to travel through communal spaces (eg: corridors) at times when they are not crowded with other people. Their timetables may need adjusting to meet this need.

Staff recognise that many pupils find open spaces very threatening. Some pupils find travel in a wheelchair through open spaces difficult because of the effect on sound and air qualities. Wherever possible, staff keep contact with pupils travelling by wheelchair – for example by keeping a hand on the pupil's shoulder and guiding them through gentle directional pressure around corners and when stopping or waiting.

Ownership of learning

Pupils are pre-intentional in their actions.

They do not recognise that their actions affect their environment.

Keyworkers are the ultimate reactive environments for pupils with MSI, providing consistent, accessible feedback about the effects of pupils' actions.

Staff use the 'burst-pause' pattern of pupils' activity to begin work on turn-taking, waiting for the natural pauses within the pupil's actions and taking their own 'turn' then. Initially their actions are likely to mirror those of the pupil. From this basis staff work to develop pupil-centred routines as a basis for anticipation and communication.

Staff attribute intention to pupils' actions where appropriate – for example, creating the chance for the pupil to repeat a swipe at a mobile.

Pupils are given frequent opportunities to experience cause and effect, with effects immediately and reliably following causes. For pupils with fluctuating hearing and/or visual losses, activities and equipment must be carefully chosen to ensure that pupils experience the same effects each time.

Environments which provide immediate, amplified feedback about pupils' actions (for example, resonance boards, Little Rooms) are used when appropriate with support from familiar staff.

Pupils are given the opportunity to become aware of new activities before they are asked to join in with them. To do this, staff work in close proximity to pupils, perhaps with an arm touching the pupil's arm, but do not ask the pupil to participate in the activity. Once pupils tolerate this approach, staff begin to work coactively, with adult and pupil working as one. Staff respond to pupils' non-verbal signals and do not force pupils through activities unless these are medically necessary.

As pupils become more confident within familiar daily routines, staff begin to work co-operatively rather than coactively, with pupil and adult contributing jointly to the activity but not always using identical actions.

Responses to routines and changes

Pupils need the security of familiar keyworkers, routines and environments.

In other situations they are likely to be passive, self-absorbed or distressed.

Pupils follow daily, rather than weekly, timetables, with each day following a similar pattern. The aim is for pupils to recognise routines and to begin to perceive their world as patterned and predictable.

Each activity within the daily timetable follows a consistent pattern each time it occurs. The beginnings and endings of activities are emphasised by the use of ORs or other cues, emphatic verbal and non-verbal signals from keyworkers and if appropriate a brief pause (some pupils will not find a pause helpful).

Frequently-performed routines (for example, feeding, changing) are carried out in the same way each time, by the same adult/s and in the same place. If one element has to change (for example, because of staff illness), others are kept the same. Cover staff are fully briefed so that they can carry out routines in exactly the same way.

Pupils work throughout the day with main (and support) keyworkers, whose priority is to establish a secure relationship with the pupil. As part of this, each keyworker develops individual interactive routines which the pupil enjoys (for example, singing and rocking /massage routines / play with a favourite blanket). These routines very gradually increase in complexity, with additional steps being added as the pupil's understanding grows.

Once pupils have developed trust in their keyworkers and are familiar with consistent daily routines, occasional changes may be introduced (for example, using a different set of sound-makers). The aim is for pupils to recognise that the experience is different without becoming withdrawn or distressed, not for them to continue to learn other things whilst experiencing change. Any unusual response by a pupil during a routine is interpreted as communicative, with the context of the routine used to help identify meaning.

Pupils' distress during less familiar activities (once reasons such as tiredness or hunger have been discounted) is read as a sign that they need to retreat to a familiar space and a preferred, calming activity before attempting further change.

MSI Unit Curriculum: Phase 1

Case study: Saima

Saima came to the MSI Unit when she was eight years old and worked initially at Phase 1. She faced a number of challenges in learning:

- she was profoundly visually impaired, with light perception in one eye only;
- she had been diagnosed as severely-profoundly hearing-impaired;
- she had severe and complex medical problems causing episodes of extreme pain for up to several hours a day;
- her behaviour was often very challenging when she was in pain;
- she had severe developmental delay

Saima has since progressed to work at Phase 2 and shows particular strengths in *Understanding time and place* and *Orientation, movement and mobility*. The account below is of her progress through Phase 1.

Learning challenges

When she first came to the MSI Unit, Saima was hard to reach. She was an anxious, withdrawn child who could be extremely aggressive when in pain. In her previous school, she had experienced great problems, even with support from a visiting MSI specialist. The school catered for pupils with a range of needs and teaching was primarily through group activities; Saima consistently became distressed and unable to participate in these. When she started at the Victoria MSI Unit, her previous experiences of school compounded her other complex needs and frequent episodes of intense pain. Many of her responses were very negative, in an attempt to protect herself from a painful and/or chaotic world. Despite these challenges, it was soon clear that in good conditions Saima could quickly learn and retain new concepts.

Priorities

The priorities for Saima at Phase 1 centred on making her world a less threatening place to be. There were several strands to this:

- imposing some external structures on her world, so that she could begin to separate and make sense of events;
- helping her build relationships with others, especially her keyworkers, so that she could begin to trust adults in the school setting;
- building the foundations for more effective communication which didn't rely on challenging behaviour.

Interactive space

Saima's 'interactive space' was a small area, with clear physical boundaries, designed to offer her security, control and opportunities to learn the skills she needed to be at ease in other environments.

Most pupils at Phase 1 have interactive spaces based in corners, or created using large physio wedges. Saima's space used a corner by a window, giving a choice of natural light, artificial task light or darkness (from closing the blind) when she needed rest. One wall was a radiator grille, rigid, regularly patterned and warm (never hot). Another was a physio wedge. The third had a range of differently shaped, sized and textured objects, anchored but moveable, so that Saima could explore them freely and eventually learn their relative positions. The objects could be changed when appropriate.

The space was large enough to accommodate Saima and her key worker together, but small enough for her to easily find the boundaries. Its purpose was to help her learn to interact with her key worker and with the physical environment, in a setting where she felt secure, where she did not need her wheelchair. Saima, like many pupils with MSI, felt safe in her wheelchair but was passive within its confines. It was a secure but non-interactive environment for her. The interactive space gave her more options, more opportunities and over time higher expectations.

Initially Saima used her interactive space for about 75% of her school day. It was the place where:

- her daily greeting routine took place, with Angela, her keyworker, sitting behind her in close contact;
- her daily massage session occurred;
- she explored her surroundings, at her own pace, following her own interests, with as much support as she wanted;
- she rested when tired or unwell.

Over time, Saima's exploration of objects using touch progressed greatly. With increased confidence came increased curiosity and interest in new objects. These were anchored in place of others which were moved or removed. Saima explored every change, first with Angela, then on her own. Her trust in both her keyworkers also increased greatly and she began to enjoy interaction and to seek contact with trusted staff. As she grew more confident, she began to spend more time in other environments, with the option of returning to her interactive space whenever she needed to do so.



Initially Saima kept hand-under-hand contact with her keyworker while she explored the textures and objects in her interactive space.



She gradually became confident enough to explore on her own, at first checking regularly that her keyworker was still within reach. Later she came to recognise her keyworker's voice from several metres away and to be happy with vocal contact.

Saima has a very delicate, focused use of touch—here, she is using the back of her hand to explore the radiator grille. Her range of strategies for tactile exploration grew as she encountered a variety of objects.



Saima's sense of security in her interactive space allowed her to relax and rest there when necessary—when she felt unwell, for example, or needed a break from using her residual senses.



Pupils working long-term at Phase 1 may not have the balance or mobility to work out of their wheelchairs for long periods of time, as Saima did. Every pupil needs their space to be designed to meet their individual needs. For many pupils, a key aspect will be consistent access to their keyworker at the most rewarding distance and angle – for example, in front at eye level, where face, hair and voice can be readily found and increasingly recognised.

Interactive spaces need to progress as pupils do. Saima's space at first had a resonance board as flooring (other pupils have used them as reactive wall boards). Saima found the board too reactive, indicating this by shuffling off it, so it was changed. Later in her development, at Phase 2, she has revisited it and now finds pleasure using it as an interactive resource.

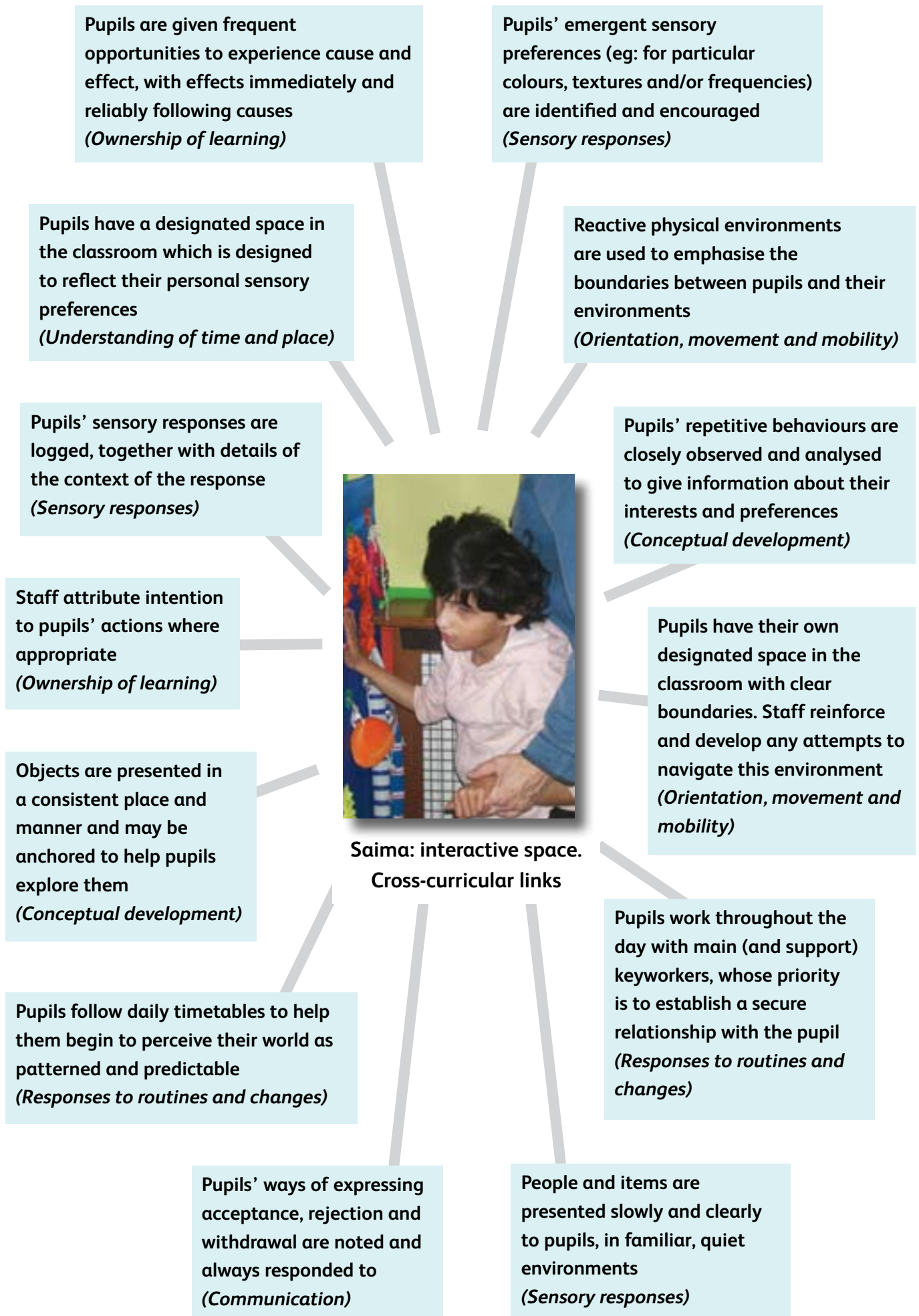
Saima used her interactive space for work on many curriculum domains. Some of the links are shown on the next page.

The context of learning

The MSI Unit Curriculum addresses the contexts in which activities occur, as well as the objectives, strategies and expectations which they embody. At Phase 1, pupils are:

- experiencing a daily timetable;
- working with one main keyworker and at least one other member of staff;
- using routines to begin to order their world;
- working almost wholly within their base room.

These aspects of Saima's programme are outlined below.



Timetabling

This was Saima's daily timetable at Phase 1:

9.00	greeting and interactive play	Angela
10.00	snack & sit	Angela
10.30	mobility to bathroom and break	Angela
11.00	interactive play and massage	Linda
12.00	<i>lunch</i>	
12.45	<i>leisure</i>	
1.30	mobility outdoors and interactive play	Angela
2.30	snack	Angela
3.00	end of day routine	Angela

Initially Saima could not separate one activity from another: her day was spent receiving an unending series of different sensations. To help her link each set of sensations together, and divide her day into more manageable chunks, the beginnings and ends of activities were heavily emphasised and adjacent activities were chosen to be quite different from each other (*Responses to routines and changes*). Later she began to recognise specific activities and to respond to the cues which meant they were about to begin.

Saima's activities were chosen to help develop and deepen her relationships with her keyworkers. Understanding parts of her world, even on a very small scale, gave her topics to communicate about. Learning to anticipate small steps within routines gave her the chance to work with trusted staff, rather than reacting passively or aggressively (*Understanding of time and place*). Saima's timetable looks – and was – highly repetitive from an adult viewpoint, but her changing ability to process her experiences made it far from repetitive for her.

Many of the activities in Saima's timetable were linked in pairs – interactive play and massage, for example. The relative times spent on each half of each pair varied from day to day, depending on Saima's health and interests. This flexibility helped staff to make the best use of Saima's time in school, particularly given her very variable health. As Saima progressed through Phase 1, the

timetable content changed in line with her abilities. Rather than spending all her greeting session interacting with Angela, for example, Saima spent some time sitting with Angela, listening to the rest of her class enjoying a group greeting session (*Ownership of learning*).

Saima followed the same daily timetable at Phase 1 each day except Friday, when she went swimming from 1.30-2.30. This was an activity she enjoyed, in a different environment, and marked the transition from the school daily routine to the family weekend routine.

Building relationships

Saima worked with one main keyworker (Angela) and also with Linda, who carried out her massage session daily and covered for Angela when necessary (*Social relationships and emotional development*). Massage was Saima's least demanding activity, and it took place in the middle of the day, when she was usually secure and calm. Saima began and ended her day with Angela, and changes to her timetable or interactive space were always introduced and supported by Angela.

In the morning, for example, Angela met Saima at her bus. Together they enclosed Saima's hand in Angela's sleeve, resting on her watch (her personal signifier). Saima chose when to move her hand (*Communication*). Only then did Angela push her wheelchair into the school building, moving slowly enough for Saima to trail at her own pace. In the classroom Saima spent a few minutes in her wheelchair, acclimatising and orientating herself, while Angela continued to talk to her. Gentle tugging on her coat sleeve cued Saima to prepare to come out of her wheelchair (*Understanding of time and place*). Angela helped her to remove her coat, then supported her to walk to her interactive space for greetings.

Saima's medical condition caused frequent episodes of severe pain. At these times she could not acknowledge anything outside her own body, needing space and time to confront the pain in her own way. This need has always been respected by staff working with her.

Initially Saima was not comfortable with sustained interaction, even when her health was good. Her keyworker stayed within her reach, reading Saima's movements and signals and responding in a way that Saima could access and understand (*Social relationships and emotional development*). Gradually her tolerance of and then enthusiasm for interaction increased. An early breakthrough was in interactive massage, with Saima leading Linda's hands to the areas she wished her to touch and massage (*Ownership of learning*). Saima's sense of touch is highly sensitive, and her signals in massage were very clear.

Using routines

Each activity in Saima's day was normally carried out in the same way each time, with the same adult, location, cues, equipment, order of events and pace. Saima received minimal information through sight and hearing and it was essential to give her as many clues as possible that the same activity was being carried out each time (*Conceptual development*). Once she realised that activities were repeated, she rapidly began to recognise and anticipate sections of the routines within them.

To help Saima anticipate which activity would happen next, objects of reference and on-body signs were used. The signs were adapted from BSL to touch Saima's body, partly to give extra information and partly (looking ahead) because profoundly visually impaired pupils often find body signs easier to form than air signs.

Saima's objects of reference (ORs) were initially presented in a segmented wooden tray and explored coactively hand-under-hand. In common with many pupils at Phase 1, she soon wanted more information than she could gain through superficial touch of the top or sides of an object, but was not ready to pick the OR up, feel it and replace it into the tray. If the OR fell, she could not see or find it again. To counter this, the ORs were attached to a board using elastic, so that Saima could explore them fully by touch without losing them (*Understanding of time and place*). By the end of Phase 1 she had learned to pick up the board they were mounted on to signal her request for the next activity.

Learning environments

Saima's school activities took place in her base room, with the exceptions of swimming and changing (*Understanding of time and place*). Most activities happened in her interactive space. For snack and meal times, however, she used a wooden chair with a tray, which gave her secure boundaries on all sides.

Saima also used her wheelchair, especially for travelling around the school (to and from her school bus, for example). This and other routes were always travelled slowly enough for Saima to trail the wall and explore potential landmarks. Spaces were crossed at a steady pace, to help her awareness of distance and time. On arrival in the classroom, Saima's wheelchair was always positioned in the same spot, facing the same way, so that she could orientate herself using touch and hearing (*Orientation, movement and mobility*).

As Saima progressed, she began to map other parts of the classroom with support from her keyworker. She clearly gained satisfaction from this activity, and showed a gift for exploring and remembering key aspects of her environment.

MSI Unit Curriculum: Phase 2

Features of learning on entry to Phase 2

Pupils at Phase 2 of the MSI Curriculum are generally working between P Levels P2(i)-P3(ii). The learning of pupils entering Phase 2 usually has the following distinctive features:

- **Social relationships and emotional development**
Pupils are egocentric and act in response to their immediate feelings and wants. They are aware of familiar adults and peers, and may interact with familiar adults.
- **Communication**
Pupils use intentional, non-symbolic communication (for example, whole body gestures, facial expressions, actions on objects). They understand symbols for some familiar activities and people and with support may use these expressively in specific contexts.
- **Conceptual development**
Pupils discriminate between self and environment. They use repetitive strategies to explore objects and familiar adults and understand simple, context-specific cause and effect.
- **Sensory responses**
In familiar, quiet environments, pupils can discriminate motivating, familiar stimuli from others and identify meaning using their residual sight, hearing and/or other senses.
- **Understanding of time and place**
Pupils' understanding is generally limited to the immediate here-and-now.
- **Orientation, movement and mobility**
Pupils are able to orientate themselves within their teaching base and respond to landmarks on familiar routes.
- **Ownership of learning**
Pupils have a sense of agency. They work co-operatively with keyworkers on familiar, motivating activities.
- **Responses to routines and changes**
Pupils need the security of familiar keyworkers, routines and environments for most activities.

Pupils at Phase 2 use some specialist areas within the school (for example, the hydrotherapy pool), but most activities are within their teaching base. Their timetables are based around daily routines but incorporate some weekly activities. Their learning activities are generally cross-curricular and emphasise process rather than product.

MSI Unit Curriculum: Phase 2

The MSI Unit Curriculum for pupils at Phase 2 seeks to develop their learning as follows:

Social relationships and emotional development

Pupils are egocentric and act in response to their immediate feelings and wants. They are aware of familiar adults and peers, and may interact with familiar adults.

They form relationships with keyworkers and expect them to behave as they have done previously, provided such behaviour is consistent and predictable.

Pupils' moods and emotions are acknowledged and responded to by staff. Staff responses may include patterns of touch, pace of speech, tone of voice or distance from the pupil.

Staff continue to use personal identifiers and/or individual ways of greeting pupils. There is an increasing expectation that pupils will actively search for keyworkers' personal identifiers, as a way of checking the keyworker's identity and/or greeting them.

Staff behave in consistent and predictable ways, especially when responding to pupils' communication.

Pupils are given opportunities to develop deeper, more overtly communicative relationships with keyworkers through Intensive Interaction or other non-directive approaches which give pupils space to lead interaction in their own way.

Keyworkers support pupils through extended interactions over several turns – for example, exploring with the keyworker all the objects that will be used in the next activity.

Pupils may work with several different keyworkers, but each keyworker always provides support for the same activities.

Pupils' preferences for particular keyworkers are recognised and noted. Wherever possible, less familiar or less preferred activities are supported by the pupil's most trusted adult.

Group activities are introduced as part of familiar daily routines (for example, snack time sessions). Pupils are supported individually by trusted keyworkers.

Pupils' awareness of their peers is consistently encouraged – for example, by drawing attention to peers' characteristic sounds or actions.

Pupils are placed where they can see/hear/sense peers when appropriate. It is recognised that this is an activity in its own right for many pupils, and one which some find intrusive and/or stressful.

Very familiar daily activities (such as greeting and collective worship) are developed to include distinct identifiers for other pupils – for example, tactile cards, photos or musical styles for singing names.

Communication

Pupils use intentional, non-symbolic communication (for example, whole body gestures, facial expressions, actions on objects). They understand symbols for some familiar activities and people and with support may use these expressively in specific contexts.

They rely heavily on routines and contextual cues in understanding their environment, and need skilled familiar adults to interpret their expressive communication.

Pupils are encouraged to make choices, choosing from two options presented simultaneously (for example, two drinks) so that they can try both options, more than once if they wish, before making up their mind.

Pupils' communication is always responded to. When appropriate, staff reflect back to the pupil an extended version of what has been communicated, incorporating symbols (signs/words/photos/symbols) wherever possible.

Pupils' abilities and preferences are assessed, formally and/or informally, to identify appropriate symbolic communication modes. A range of modes may be used, with different emphases for receptive and expressive communication. The modes used may vary over time or (more commonly) become increasingly distinct.

Cues are used to differentiate and name activities. Pupils are given the cue before and (where appropriate) during the activity, and will usually be helped to put it away at the end. Objects, pictures, photos, symbols, songs, actions and/or scents may be used, depending on individual abilities and preferences. Most pupils also have a cue for 'one-off event' to cover emergencies and activities such as birthday celebrations.

The sensory properties of pupils' receptive communication modes are analysed and optimised – for example, the size, contrast, colours and surface material of visual symbols, or the pace and tone of speech.

An increasing vocabulary of symbols (signs/words/photos/symbols) is gradually introduced, always in functional contexts. It is recognised that pupils need repeated exposure to new symbols before they are expected to understand or use them.

Communication always proceeds at the pupil's pace. This may affect the planning and delivery of group activities if the pace of individual responses within the group varies.

Pupils may use challenging behaviour as intentional communication. Responses to this will vary depending on the severity and functions of the behaviour, but will always include an acknowledgement of the pupil's communicative intent.

Conceptual development

Pupils discriminate between self and environment. They use repetitive strategies to explore objects and familiar adults. They understand simple, context-specific cause and effect.

Pupils' engagement with the environment is easily disrupted, causing distress or a retreat into passivity or highly repetitive behaviour. Their exploratory strategies are idiosyncratic, often using only one sense.

Staff identify ways of extending pupils' range of exploratory behaviours. Some pupils may be willing to explore items in new ways if working coactively with a trusted keyworker. Others may need gradually to adapt and extend existing repetitive strategies. Some may need to work with an increasing range of items which share one or more particular properties (for example, soft furry textures) but which also have other distinctive features.

Pupils are given time to explore the equipment used in daily activities, and are increasingly expected to recognise the function of familiar items.

Any curiosity, however fleeting, shown by pupils about items in the environment is immediately followed up. Activities and movement around the environment occur at a slow enough pace for pupils to express curiosity or choice.

Pupils are given frequent opportunities to experience cause and effect in an increasing range of contexts. Particular care is taken that pupils with more severe or fluctuating sensory impairments can consistently see/hear/feel the effects of their actions.

Pupils' current learning strengths and preferences are used to support the development of new concepts.

Staff model ways of combining objects (for example, dropping balls into a box), encouraging pupils to attend to the activity but not to join in until they are happy to do so. Any combination of objects by pupils is encouraged, and opportunities given to repeat the activity using the same and similar equipment.

Teaching sessions incorporate different processes and materials, and changes in materials (for example, when water is added to cornflour). Some pupils may need to observe sessions (through sight, hearing and/or proximity) for a considerable time before they are confident about participating. Pupils' engagement with materials may remain extremely brief; their likes and dislikes are respected, although staff take care that their decisions are informed, not immediate rejections of new activities.

Whenever possible, teaching is through activities which are directly useful and transferable from school to home or a future adult setting – for example, watching meal preparation; finding their own spoon; helping to wash up.

Sensory responses

In familiar, quiet environments, pupils can discriminate motivating familiar stimuli from others and identify meaning using their residual sight, hearing and/or other senses.

They may only be able to use one sense at a time. In less ideal environments, for example, those where lighting causes glare or there are high levels of background noise, pupils may rapidly become distressed or passive.

Ongoing assessment of sensory function continues. Pupils' preferred form of sensory input is assessed in a range of settings. Optimal visual and acoustic environments are maintained, with staff monitoring those visual or acoustic intrusions which distract individual pupils.

The resources and materials used with pupils are chosen to be accessible through their residual senses. Items for exploration are presented so that pupils can revisit them easily (for example, anchoring objects on a table or wheelchair tray).

Staff watch for and act on indications that pupils are ready to develop their sensory function further. This may involve, for example, drawing a pupil's attention to items or events just beyond arms' reach; providing information through two sensory channels rather than just one, or encouraging joint attention by working with equipment held close to the adult's face.

Pupils are given opportunities to experiment with different stimuli – for example, musical instruments generating different sounds or vibrations; controlling light sources in the sensory room; exploring a container of differently textured materials.

Staff check and maintain any hearing or visual aids used by a pupil with the pupil close by. Any interest shown by the pupil is reinforced by an opportunity to observe more closely and/or coactive involvement in the activity.

Many pupils interpret and recognise familiar stimuli only after a significant delay. Pauses are built into daily routines to allow the time needed by individual pupils.

Pupils are given opportunities to recognise very familiar stimuli out of context – for example, meeting a keyworker in the corridor rather than the classroom. The additional time needed by most pupils for processing information in a new context means that such opportunities generally need to be engineered rather than left to chance.

Understanding of time and place

Pupils' understanding is generally limited to the immediate here-and-now.

They remember and can anticipate steps within some familiar daily routines and respond to familiar cues for most daily events.

Rhythm continues to be a key element of many activities (for example in music, movement or massage), because it helps many pupils to develop their sense of time.

Creative activities such as art and music are process based. End products are not essential to the activity.

Pupils begin to attend regular storytelling or drama sessions which represent other experiences. The same story or plot is enacted each week for a half- or full term. Initially pupils may observe rather than participating, and when they do participate, their understanding will remain at a concrete stage for a considerable time. The aim at Phase 2 is for pupils to be actively aware of the activity.

Pupils are increasingly encouraged to work co-operatively with staff, copying/ imitating or continuing actions they have learnt co-actively, so that pupil and adult contribute jointly to an activity without always using identical actions.

Daily timetables give information about several sessions, up to a whole morning or afternoon. Pupils are encouraged to interact with timetable objects or symbols (for example, by expressing pleasure or displeasure at the prospect of a specific activity). Pupils begin to use timetables with staff to review activities at the end of a half-day.

Staff sometimes delay steps within very familiar routines, to give pupils the opportunity to anticipate and act on their anticipation.

Pupils are encouraged to choose the sequence of some activities (for example, sips of drink and food items at snack time, or pieces of equipment used in a PE session).

Pupils continue to have designated spaces within the classroom, but (depending on their sensory and emotional capabilities) the boundaries of a space may not be defined by physical 'walls'. (For example, a rug which a pupil likes may be used, or a large basket of favourite toys.) The items in a space will vary over time with the time with the pupil's preferences, but will not change frequently or randomly.

Staff support pupils in linking people, activities and places (for example, the swimming teacher – swimming – the pool; the taxi escort – going home – the taxi). Cues are used and pupils are given time to process where they are and who they are with before beginning an activity.

Pupils begin to attend sessions in classrooms other than their own (for example, specialist teaching rooms for lessons such as science). They are supported by familiar keyworkers.

Pupils use a range of school environments for individual work with keyworkers, including the school grounds. Photos, symbols or other signifiers are used to indicate these places. A matching signifier is attached to the entrance to indoor environments where appropriate.

Orientation, movement and mobility

Pupils are able to orientate themselves within their teaching base and respond to landmarks on familiar routes.

They explore their environment with support from a keyworker, using a range of idiosyncratic exploratory strategies. Lack of confidence in exploring new areas is a significant issue for pupils.

Each pupil's daily programme includes several sessions where movement between activities is a 'learning journey'. Additional time is given to these opportunities to enable pupils to move at an appropriately slow pace.

Staff identify and introduce to pupils the learning journey landmarks which, knowing the pupil, they are most able and likely to relate to. Such landmarks will usually be explored using only one sense at a time. As pupils become more familiar with the landmarks, staff pause at appropriate points in the journey to give pupils the opportunity spontaneously to orientate themselves.

Staff identify and teach appropriate safe mobility strategies for individual pupils (for example, visually scanning the environment; trailing walls; stopping at junctions or doorways). The aim is for pupils to contribute towards their safety, even if they need assistance to move. The responsibility for using these strategies passes gradually to pupils as they become proficient in their use.

Pupils begin to learn how to use appropriate mobility aids (for example, rolator, hoople, powered wheelchair), working towards independent use with supervision.

With support from staff, pupils begin to explore the wider environment outside the classroom (for example, nearby corridors). The aim is for pupils to develop strategies for exploration and mapping which they can later generalise to other unfamiliar environments with support. Their sensory and movement preferences (for example, preferred highly repetitive movements) are used as the basis for exploration strategies.

Pupils experience mobility in outdoor environments. Most will need considerable support from staff, because of the different sensory feedback from outdoor movement. The aim is to develop pupils' awareness and confidence in very different environments, rather than to transfer learned skills.

Pupils are encouraged to locate items they want, if appropriate using resources such as resonance boards to amplify vibrations. Staff engineer situations where pupils need to use their skills and initiative to find items (for example, those which are just out of reach) and make sure that pupils' efforts are successful.

Many pupils need support to develop confidence in using orientation and mobility skills. Specific issues for individual pupils (for example, moving in crowded settings) are identified and coping strategies developed.

Ownership of learning

Pupils have a sense of agency.

They work co-operatively with keyworkers on familiar, intrinsically motivating activities.

Staff use 'burst-pause' sequencing in their own actions to stimulate pupils to request activities to continue.

Where appropriate, staff imitate pupils' actions within activities, as a way of giving pupils the lead role and to model imitation.

Pupils are given frequent, real opportunities to influence their environment and what happens to them. Their responses to activities are acknowledged and respected – for example, expressing a preference for one material over another in art. Staff are careful, however, that pupils make informed decisions, rather than rejecting unfamiliar experiences at the outset.

Many activities offer turntaking and shared control between pupil and staff member – for example, in exploring the objects to be used at snack time, the adult may offer each object and the pupil decide how and for how long to engage with it.

Staff model and support pupils in negotiating solutions to difficulties – for example, a pupil who rips paper may have a box of paper for ripping in his or her designated area, and be redirected to this box when appropriate.

Staff work co-operatively with pupils on familiar activities, each contributing to the activity and completing it between them. Pupils with profound or fluctuating impairments need particular help to stay aware of staff actions and their effects.

Staff begin to work reactively with pupils on familiar motivating activities – for example, by carrying out the same activity alongside the pupil, either at the same time or by taking turns with the pupil. Joint activities, with one member of staff working with (usually) two pupils, may also be used.

Pupils' self-esteem and confidence are bolstered whenever possible by acknowledgement of their efforts and achievements. Staff are especially quick to recognise and reinforce any spontaneous use of learned skills.

Teaching sessions are cross curricular, to promote the generalisation of learned skills and to confirm to pupils their ownership of this learning. For example, pupils who have mastered switch control using a power link device to start and stop a fan will use the same skills in another session to control a food blender.

Pupils are given opportunities to problem-solve – for example, at snack time their cup may be missing from the tray, giving them the chance to fetch it from the shelf or indicate to staff that it is missing. Situations are carefully chosen to avoid distressing or confusing pupils.

Responses to routines and changes

Pupils need the security of familiar keyworkers, routines and environments for most activities.

They tolerate changes in single aspects if these are well-cued and other conditions are optimal, but they cannot undertake other new learning when experiencing change.

Daily timetables include at least one session which is distinct to that day of the week (eg. food technology on Mondays) but which repeats the same content for several weeks or more.

Single changes to familiar routines are occasionally introduced (for example, carrying out an activity at a different time of day) and pupils' reactions carefully monitored.

Staff are alert for actions by pupils which change routines in some way; they are usually followed through.

Pupils are regularly introduced to new objects or experiences which incorporate some of their known preferences, and are encouraged to explore these. Signs of curiosity about the environment (for example, reaching towards a new wall display) are acclaimed and reinforced by staff.

Activities are structured to include choice-making by pupils. Choices are generally limited to two options, presented in concrete form (for example, two pieces of fruit to choose from for food preparation).

Pupils are introduced to naturally occurring changes (for example, weather conditions) and supported in responding appropriately (for example, choosing whether to put a coat on to go out).

Pupils work with an increasing range of adults. Staff changes are introduced one at a time, so that pupils can learn to recognise each new person and develop ways of interacting with them.

Pupils may be included in group sessions with more able pupils within the MSI Unit, often initially as observers. Once they are familiar with the setting and activity they are encouraged to participate.

Pupils may attend school-wide celebrations, festivals etc. with support from keyworkers. They may attend for only part of the event, leaving as soon as they show signs of becoming overwhelmed or distressed.

MSI Unit Curriculum: Phase 2

Case Study: Kieran

Kieran is eight years old and is working at Phase 2 of the MSI Unit Curriculum. He faces a number of challenges in learning:

- he has no sight;
- he has a moderate-severe hearing loss;
- he has hemiplegia and makes many involuntary movements, especially when excited;
- he has had a gastrostomy and major feeding difficulties in the past;
- he has severe developmental delay.

Kieran is a happy lad, who greatly enjoys being with other people and is curious about the world around him.

Learning challenges

Kieran takes a long time to take information on board, and it would be easy to assume that he had profound learning difficulties. This is not so – rather, his interaction with the environment is hugely affected by his combined blindness, hearing loss and motor problems. These mean that he gets very little information from the world around, and also (because his movements are not well-controlled) that some of the information he does receive is wrong. He may have reached for one object, for example, but in fact found another – then, because he cannot see, it is hard for him to know that the second object is not the one he wanted. His hearing is too limited and too inconsistent to give much useful information about what is happening around him. Sight is usually the sense we use to organise our information about the world, so it is doubly hard for Kieran to make sense of the very limited, often distorted data he receives. Kieran gets very little feedback about the effects of his actions or the actions of others, and so it is hard for him to learn that he can affect what happens to him, and how to affect events in the way that he wants.

Progress and priorities

Despite these challenges, Kieran has made considerable progress over the last few years. Currently:

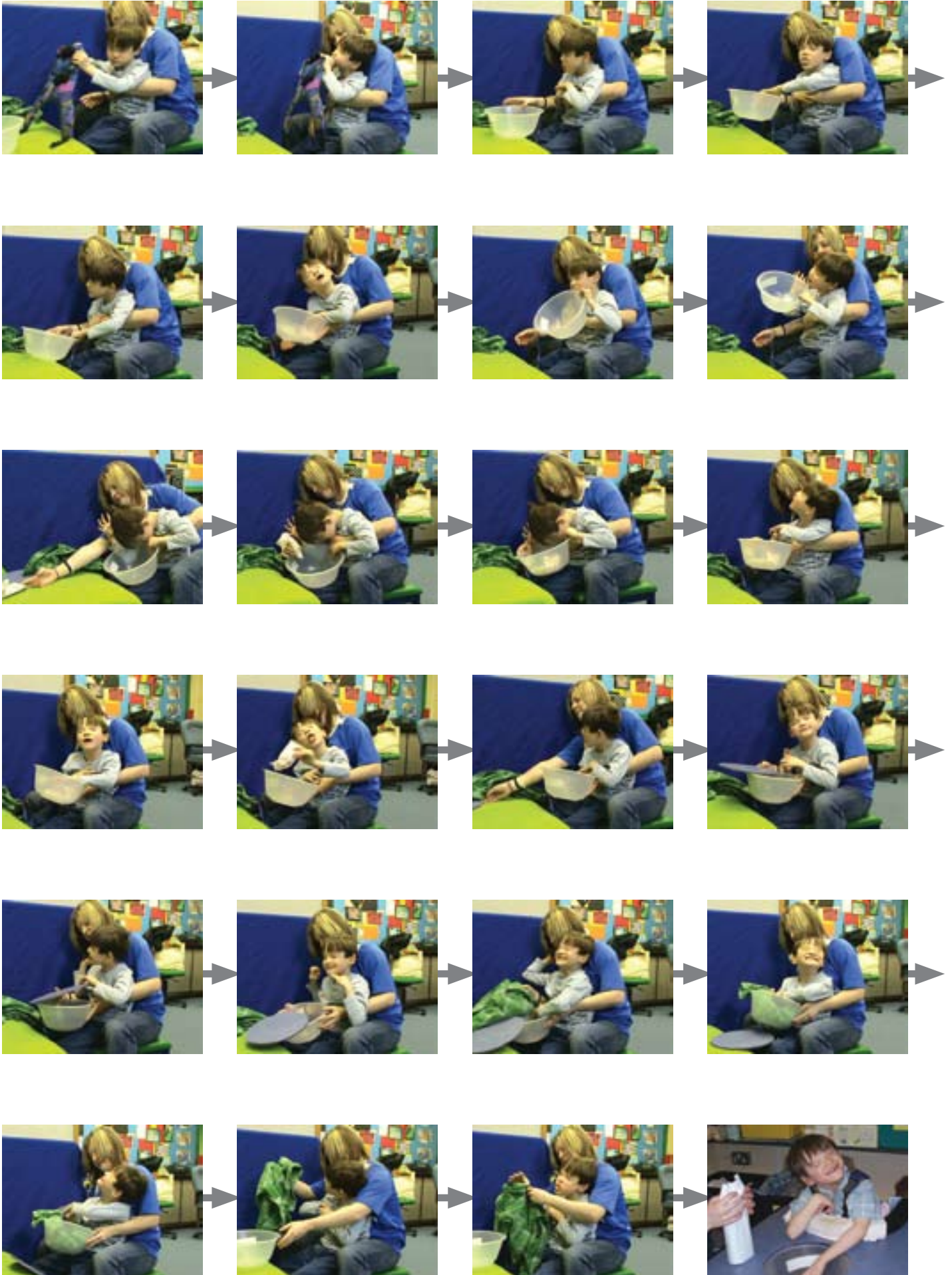
- he communicates using routines, some natural contextual cues, objects of reference, intonation and whole-body movements;
- he wears digital hearing aids, and his responses to speech and other sounds have increased;
- he explores very delicately with his left hand and is beginning to respond to textures, shapes and air currents;
- his recognition of familiar objects has improved, together with his understanding of their uses and meanings;
- he has sitting balance and enjoys using a standing frame;
- he has maintained his interest in the world and his joy in interacting with other people.

When Kieran joined the Victoria MSI Unit at the age of two, he was functioning at Phase 1 of the Curriculum. He is now making progress within Phase 2, and work with him centres on helping him to make better sense of his world – by developing strategies to find out more about the people and world around him, and by ordering and structuring what he finds out, so that he can return to what he has learnt and build on it in the future.

Snack and stand

Every morning, Kieran explores and eats breakfast cereal in his standing frame. He enjoys this activity, which has been part of his timetable for several years. Kieran has become much less anxious about eating, and over the last year or so has moved from feeling the cereal to feeling and eating it.

Kieran is cued for the activity by Liz, one of his keyworkers. All the objects used (standing frame straps, bowl, cereal, bowl lid, apron) are presented to Kieran one by one. Liz sits with her body enclosing Kieran's so that he feels her movements – this mode of communication is much more accessible to him than speech, objects or even on-body signs, so Kieran can concentrate on what Liz is doing, rather than on how she is doing it. Liz offers Kieran each object, but then leaves him to find and explore it in his own time and way. She does not take his hands or model particular ways of handling the objects.



This way of introducing the activity does far more than simply tell Kieran what is coming next. It helps him to recognise the items he uses every day, and to develop new ways of finding out about them. It gives him the experience of taking turns in a conversation – Liz’s turns involve introducing objects; Kieran’s involve exploring them. They use the same primary communication mode (whole-body movements); they both have a genuine interest in the topic, and they understand each other’s meaning. Perhaps most importantly, Kieran is learning that he can share control of an activity with an adult. He is working with Liz to explore the objects, making his own decisions about how and for how long to explore each one. He is learning that he can affect what happens to him, that his choices are respected and that he can work co-operatively with another person.

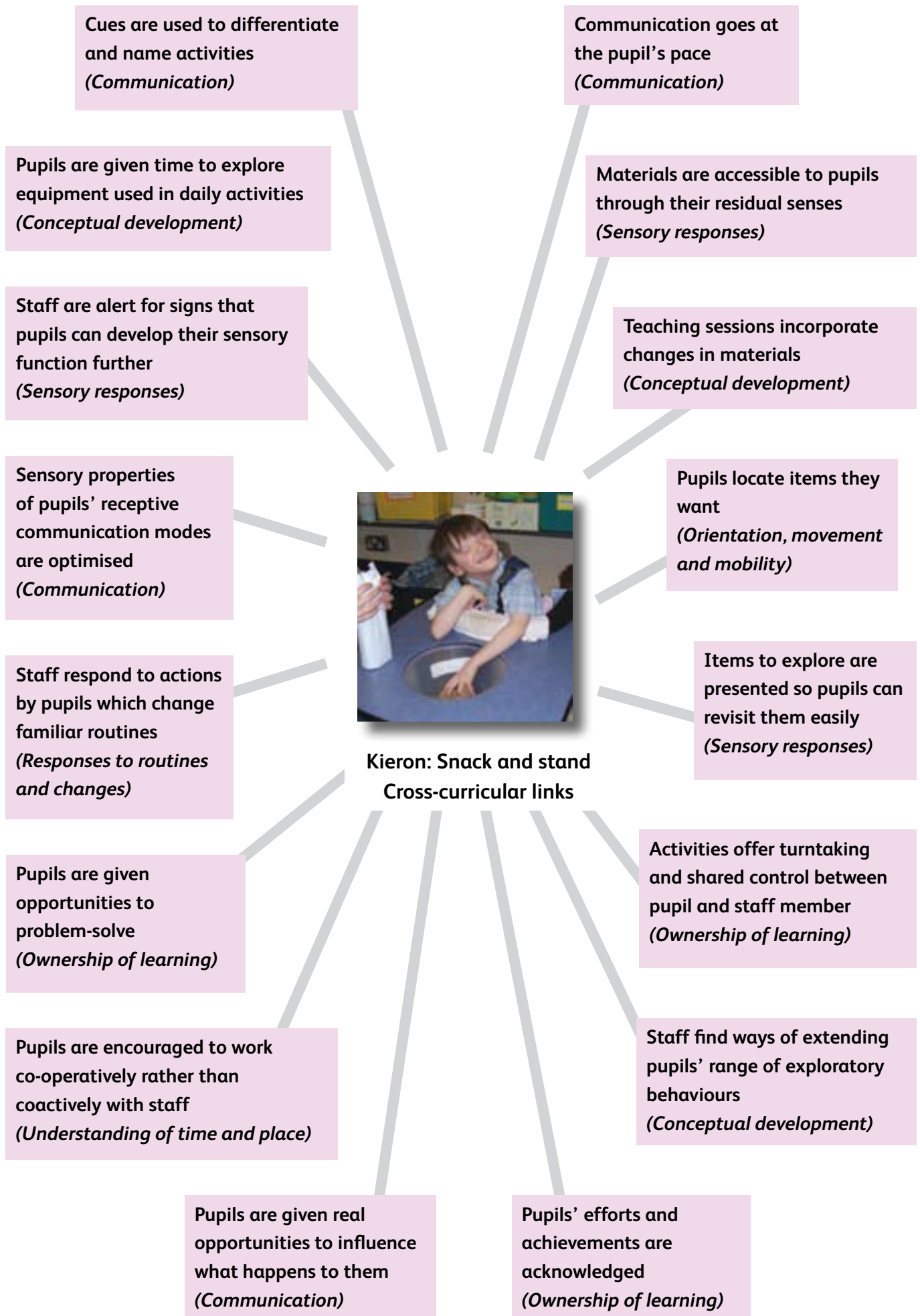
All Kieran’s learning activities are cross-curricular, to help him to consolidate his learning and recognise its relevance in different situations (*Ownership of learning*). Snack and stand, like his other activities, supports learning across the curriculum. Some of the links are shown in the diagram opposite.

The context of learning

The MSI Unit Curriculum addresses the contexts in which activities occur, as well as the objectives, strategies and expectations which they embody. At Phase 2, pupils are:

- beginning to move from daily to weekly timetables;
- working regularly with a wider range of staff than at Phase 1;
- becoming more aware of peers sharing an activity;
- experiencing different learning environments.

These aspects of Kieran’s programme are outlined overleaf.



Timetabling

This is Kieran's current timetable:

Day/ time	Monday	Tuesday	Wednesday	Thursday	Friday
9.00	greeting and circle time Liz	greeting and circle time Liz	greeting and circle time Liz	greeting and circle time Liz	soft play Liz
10.00	snack & stand Liz	snack & stand Liz	snack & stand Liz	snack & stand Liz	snack Liz
10.30	break Bob	break Bob	break Bob	break Bob	break Bob
11.00	guitar and objects Liz	sign and sing Liz	gross motor play Liz	'What shall we do with the ball today?' Liz	drumming Liz
12.00	lunch	lunch	lunch	lunch	lunch
12.45	leisure	leisure	leisure	leisure	leisure
1.30	food tech Liz	PE Liz	aromatherapy massage Liz	music + dance Liz	water play and stand Vi
2.30	snack Bob	snack Bob	snack Bob	snack Bob	snack Bob
3.00	end of day routine Liz	end of day routine Liz	end of day routine Liz	end of day routine Liz	end of day routine Liz

Each day except Friday begins in the same way and continues so until the end of break. The eleven o'clock sessions, although differently named, are variations on a theme: they all involve interacting with Liz and with objects, and being aware of the movements used in those interactions (*Ownership of learning*). In common with other Phase 2 activities, they focus on process rather than product. They are about how to interact with the world around (*Conceptual development*).

Afternoon sessions are more varied. Food technology, for example, is about experiencing raw foods through every available sense (*Sensory responses*). Fruit and vegetables let pupils experience changes in materials (*Conceptual development*) – their flesh is often quite different to their peel. A whole pineapple or other fruit, placed on a fixed tray, can be located and revisited (*Orientation, movement and mobility*). For Kieran, pineapples have the added bonus that they don't easily disintegrate when sucked and chewed, so he need not fear choking.



After snack time, the school day ends with the daily goodbye ritual. This is a daily routine for almost all the MSI Unit pupils, although the format varies from group to group. It is used to review, celebrate and wind down the day before pupils return to their homes (*Understanding of time and place*). For Kieran, like most of his activities, the goodbye session includes music, singing, touch and movement.

Responding to different staff

Kieran's current staffing is shown below (activities with different staff are shown in different colours):

Day/ time	Monday	Tuesday	Wednesday	Thursday	Friday
9.00	greeting and circle time Liz	greeting and circle time Liz	greeting and circle time Liz	greeting and circle time Liz	soft play Liz
10.00	snack & stand Liz	snack & stand Liz	snack & stand Liz	snack & stand Liz	snack Liz
10.30	break Bob	break Bob	break Bob	break Bob	break Bob
11.00	guitar and objects Liz	sign and sing Liz	gross motor play Liz	'What shall we do with the ball today?' Liz	drumming Liz
12.00	lunch	lunch	lunch	lunch	lunch
12.45	leisure	leisure	leisure	leisure	leisure
1.30	food tech Liz	PE Liz	aroma therapy massage Liz	music + dance Liz	water play and stand Vi
2.30	snack Bob	snack Bob	snack Bob	snack Bob	snack Bob
3.00	end of day routine Liz	end of day routine Liz	end of day routine Liz	end of day routine Liz	end of day routine Liz

Because Kieran gets so little information about the world around, it is very hard for him to recognise and read new staff. Because so many of his movements are unintentional, it is very hard for unfamiliar staff to read his signals. Even compared to other MSI Unit pupils, Kieran has particular difficulties in working with a wider range of staff. These are addressed in several ways.

Liz remains his main learning resource, and it is usually Liz who introduces new activities (*Social relationships and emotional development*). Kieran's lunchtime member of staff has also remained the same over time, to help build his confidence at mealtimes. Bob, who was Kieran's main keyworker in the past, still spends several periods each day with him, and other staff working with the same group take care to be involved with Kieran, greeting him and interacting with him informally. On a Friday afternoon, Kieran works with a less familiar adult (*Responses to routines and changes*). She is highly responsive to him, and the session combines two of his favourite activities (using his standing frame and water play), just to emphasise that new adults are well worth getting to know.

Most Phase 2 pupils work with a wider range of staff – typically two keyworkers sharing the teaching timetable, with at least one more familiar staff member supporting the pupil at snack, lunch and break times.

Working with peers

Kieran faces similar challenges in learning to share activities with peers. Although he participates in a number of group activities, supported each time by Liz, it is debatable whether he understands that the other pupils are joining in with the same activity. Kieran cannot yet share his attention between two happenings: if he is focusing on his own role in an activity, he cannot simultaneously focus on other people, especially as he gets so little distance information, of such poor quality.

Kieran spends break times with Bob and another boy. This lad is vocal, mobile and sociable, so Kieran can hear him and feel him. It is important that these sessions have no content other than 'being together' – this, for Kieran at present, is an activity in its own right (*Social relationships and emotional development*).

Learning environments

Pupils working at Phase 2 use a range of school environments, including classrooms other than their own (*Understanding of time and place*). Kieran appears at first glance to be an exception to this:

Day/ time	Monday	Tuesday	Wednesday	Thursday	Friday
9.00	greeting and circle time Liz	greeting and circle time Liz	greeting and circle time Liz	greeting and circle time Liz	soft play Liz
10.00	snack & stand Liz	snack & stand Liz	snack & stand Liz	snack & stand Liz	snack Liz
10.30	break Bob	break Bob	break Bob	break Bob	break Bob
11.00	guitar and objects Liz	sign and sing Liz	gross motor play Liz	'What shall we do with the ball today?' Liz	drumming Liz
12.00	PHSE lunch	PHSE lunch	PHSE lunch	PHSE lunch	PHSE lunch
12.45	leisure	leisure	leisure	leisure	leisure
1.30	food tech Liz	PE Liz	aroma therapy massage Liz	music + dance Liz	water play and stand Vi
2.30	snack Bob	snack Bob	snack Bob	snack Bob	snack Bob
3.00	end of day routine Liz	end of day routine Liz	end of day routine Liz	end of day routine Liz	end of day routine Liz

Sessions coloured mauve take place in Kieran's base room; different colours denote different rooms. In fact, Kieran uses different parts of his base room for different activities. He also experiences different equipment (his standing frame, for example) as different mini-environments.

In unfamiliar rooms, Kieran tends to check that he has a trusted adult with him, and then to ignore the new environment, although he occasionally responds to air currents and auditory signals. Wherever possible, other rooms are linked to their purpose – playing the piano, for example (*Understanding of time and place*). For Kieran, the emotional aspect of using new environments (covered in *Responses to routines and changes*) is not currently an issue. The skills needed to explore and map new environments are addressed at Phase 2 through daily ‘learning journeys’ which pupils undertake (*Orientation, movement and mobility*). Most of Kieran’s learning journeys follow routes within his base room. Once his skills in this trusted environment are secure, he will be equipped to tackle more difficult routes.

MSI Unit Curriculum: Phase 3

Features of learning on entry to Phase 3

Pupils at Phase 3 of the MSI Curriculum are generally working between P Levels P3(ii)- P6. The learning of pupils entering Phase 3 usually has the following distinctive features:

- **Social relationships and emotional development**
Pupils remain egocentric, but are increasingly conscious of their feelings and desires and sometimes able to moderate their emotional responses. They interact with familiar adults. They are aware of their peers and interact with them in structured situations.
- **Communication**
Pupils understand and use some symbolic communication (speech, signs, symbols, pictures or objects of reference, accessed directly or through ICT).
- **Conceptual development**
Pupils use a range of strategies to explore and manipulate objects, and understand the function of many familiar items.
- **Sensory responses**
Pupils can discriminate and recognise stimuli using residual sight, hearing and/or other senses, but will comprehend (understand the implications of) only very familiar sights and sounds.
- **Understanding of time and place**
Pupils are beginning to move beyond the immediate here-and-now in their understanding of the world.
- **Orientation, movement and mobility**
(As far as their physical abilities allow:) Pupils recognise and remember familiar routes and environments and navigate them in the presence of a keyworker. They have the orientation and mobility skills needed to explore new environments, but need support to travel within them.
- **Ownership of learning**
Pupils begin to differentiate between actions they can complete independently and those with which they need help.
- **Responses to routines and changes**
Pupils generally adapt to single changes in routines, but withdraw or become distressed if there are multiple changes. They are curious about new things provided they are well-supported and secure.

Pupils at Phase 3 use many different areas within the school and their timetables include many activities based on specific subjects (eg: food technology, drama). Learning activities remain cross-curricular, to support generalisation and decrease prompt- and context-dependency.

MSI Unit Curriculum: Phase 3

The MSI Unit Curriculum for pupils at Phase 3 seeks to develop their learning as follows:

Social relationships and emotional development

Pupils remain egocentric, but are increasingly conscious of their feelings and desires and sometimes able to moderate their emotional responses. They interact with familiar adults. They are aware of their peers and interact with them in structured situations.

They do not generally initiate or maintain contact spontaneously, unless the other person has something which they want. They respond in small group situations if they are individually supported by a keyworker.

Creative activities such as art, music and drama are used to explore emotional and aesthetic responses and concepts.

Staff give names to pupils' moods or emotions where appropriate (for example, signing 'You're cross'.) They show awareness of and respect for pupils' emotional responses, communicating these in ways that have meaning for the pupil.

The timetable includes an increased range of group activities such as drama, art, music, movement, library and/or circle time. The size of the group will vary between activities. Most activities offer both highly structured and supported interactions between pupils and opportunities for more spontaneous interaction.

Established group activities such as greetings, snack time and collective worship are modified to encourage less structured interaction.

Positive spontaneous interactions between pupils are acclaimed and supported. Situations which have given rise to spontaneous interaction are noted and re-created.

Pupils are encouraged to interact, for example by needing to share props in drama. Staff may manipulate activities to promote interaction – for example, by looking at class photos with one pupil in another pupil’s presence.

Joint teaching activities, with one member of staff working with (usually) two pupils, are structured to encourage pupils to be aware of, and where possible learn from, each other’s actions.

Specific interaction skills (for example, asking a peer for an object) are modelled and practised in a number of different sessions.

Communication

Pupils understand and use some symbolic communication (speech, signs, symbols, pictures or objects of reference, accessed directly or through ICT).

They use single words, signs or symbols to represent ideas. Much of their expressive communication remains non-verbal and they are still reliant on contextual cues in many situations.

Staff gradually reduce the support given to pupils – for example, by not always initiating routine activities – so that pupils are motivated to initiate communication and use different communicative functions such as gaining attention and showing items to staff. This approach is sensitively managed so that pupils’ confidence and motivation is maintained.

Staff communicate with each other using modes that are accessible to pupils (for example, signing to each other if pupils use sign). The messages that they convey in this way are limited to those within pupils’ understanding.

Staff model different communicative functions in their conversations with pupils – for example, possession (‘That’s my coat!’); denial (‘Have you had a drink? No, you haven’t.’)

Pupils are encouraged to help repair breakdowns in communication, for example by repeating their previous utterance. Initially staff may need to pretend that they have not heard or understood when in fact they have, so that they have enough information to support pupils effectively in repairing the ‘breakdown’.

Staff increasingly expect pupils to use symbolic communication, for example in making choices.

Staff use more complex language structures in their communication with pupils. The information provided in activities like calendar work becomes more detailed – for example, showing where and with whom an activity will take place.

Vocabulary is extended through an increasingly differentiated timetable – for example, the names of utensils used in food technology and at snack time; the different school areas used for science, food technology, PE etc.

Increasingly detailed information is provided during activities – for example, a series of photos showing different stages of an activity, rather than a single photo, and/or a series of signs and gestures rather than a single sign. The aim is to give pupils the opportunity to talk about the activity (for instance, by picking up the photo of the adult leading the session) rather than just to name the activity.

Pupils are routinely offered three or more options to choose from (choosing leisure activities; choosing where to go in mobility sessions, choosing their favourite activity of the day to share in collective worship etc.) Options are presented in the form of photos, symbols, signs or words rather than real objects.

The responsibility for identifying and interpreting contextual cues moves gradually from staff member to pupil.

Simple stories with repetitive structures are used to encourage pupils to anticipate and join in with verbal sequences.

Conceptual development

Pupils use a range of strategies to explore and manipulate objects, and understand the function of many familiar items.

Their understanding of basic concepts is tied to familiar, practical activities. Their rote learning (for example, number sequences, song tunes, routes) may be much better than their understanding.

Pupils are offered objects with a range of properties for use in free or structured exploration. New strategies for exploration are modelled by adults or peers.

Pupils are encouraged to use an increasing range of actions on objects (directly or using tools) to produce effects in activities such as art, food technology, music and computer work.

Very familiar daily activities such as greetings and collective worship are gradually extended to incorporate new concepts (such as identifying who has and who hasn't taken part in an activity).

Practical, intrinsically motivating activities are used to develop concepts such as sorting by property and understanding of quantity. Familiar people may also be used – for example, matching photos to people, or building up a photo of a keyworker’s face from different features.

Pupils’ learning strengths are used to scaffold their conceptual development – for example, pupils who remember songs easily may use counting songs to support quantification. Rote learning, if this is a pupil’s strength, is always linked to practical activity.

Pupils are given opportunities to explore new objects or equipment before they are expected to use them in learning activities (for example in science, food technology, circle time and drama).

Pupils begin to record accounts of their experiences using drawings, photos, symbols or artefacts, with support from staff. They are supported in sharing their accounts with staff and peers.

Pupils are helped to label work as theirs – for example, by making a mark with a pen or by sticking on their photo or tactile identifier.

Where possible, teaching is through activities directly useful in adulthood (for example, laying the table, making a snack, handling money). This is particularly the case for older pupils.

Sensory responses

Pupils can discriminate and recognise stimuli using residual sight, hearing and/or other senses, but will comprehend (understand the implications of) only very familiar sights and sounds.

They are likely to be highly distractible by extraneous stimuli.

Ongoing assessment of sensory function continues.

Pupils are always given as much time as they need to receive, interpret and respond to sensory information.

Many pupils attend only to their fairly close surroundings – often within about one metre – even though they can access some aspects of the more distant environment (for example, through residual sight, hearing, smell and/or changes in air pressure on their skin). Any fleeting attention to more distant events is acclaimed and noted by staff, and the circumstances recreated as far as possible on other occasions.

Pupils' preferred forms of sensory input are incorporated into leisure and other activities. Group activities such as drama, art and science are multi-sensory to cater for the range of needs.

Pupils are given experience of both optimal and less optimal visual and acoustic environments, with appropriate support in less optimal settings. In less optimal environments activities make fewer demands on pupils, and proceed more slowly.

Staff model and draw pupils' attention to ways of adapting the environment eg: by shutting doors to lessen noise or switching on lights.

Where appropriate, the use of specially-designed cues (objects of reference, photos, symbols etc.) is gradually reduced and the pupil's attention drawn to naturally-occurring contextual cues. Naturally-occurring sights, sounds and other cues may be enhanced or specifically emphasised in the earlier stages of this process.

Pupils are given opportunities to recognise familiar stimuli in a range of contexts. They are supported in working out the implications of familiar sensory information – for example, anticipating an outing from watching packed lunches being put into a coolbag.

Pupils are given frequent opportunities during a range of activities to attend jointly to a person and an object or other stimulus. It is recognised that this is difficult for many pupils.

In group activities, pupils are cued if necessary when the focus shifts from one member of the group to another. Pupils are given as much time as they need to shift their attention.

Pupils who use hearing or visual aids work co-operatively with staff to check and maintain them, sharing responsibility for the activity with staff and carrying out some of the actions themselves.

Rhythm continues to be a key element in how experiences are presented (for example in music, speech, movement or pulsing light).

Understanding of time and place

Pupils are beginning to move beyond the immediate here-and-now in their understanding of the world.

They understand references to very familiar activities, places and people not immediately present and can anticipate or review several activities using a daily timetable.

Pupils are increasingly encouraged to work co-operatively with staff, imitating or continuing actions modelled visually and/or hand-under-hand, rather than working coactively.

Pupils use an increasing range of school environments, including the school grounds. Photos, symbols or other signifiers are used to refer to these places.

Visits out of school include the use of community facilities (for example, the local park). Pupils go on regular shopping trips to local shops, initially buying one item (for example, one piece of fruit) with support. They are supported in using object, photo or symbol shopping lists.

Daily timetables give information about several sessions and are gradually extended to cover the whole day. Timetables are used to review activities which have been completed, as well as to anticipate those still to come.

Weekly calendars are introduced, initially emphasising one key activity for each day which is then clearly linked to the daily timetable. Weekly timetables include reference to weekends.

Pupils are helped to develop appropriate forms of recording – for example, making marks on paper, or recording speech or vocalisations. Records are reviewed with the pupil (for example, looking back at previous computer-made pictures in a scrapbook); staff emphasise ‘*You made this; this is your work*’.

Records of significant or familiar events (photo books, diaries, recorded stories etc.) are used as resources for shared communication and/or leisure.

Creative activities such as art and music gradually change focus from process alone to process and product.

Staff model and encourage pupils to join in with simple role play, initially of very brief, familiar activities such as drinking from a toy cup. Pupils are given time to explore any equipment used before using it in imaginative play.

Pupils access stories, including myths and traditional tales, in sessions such as library and drama. These sessions emphasise pupils' sense of 'other' and movement-based participation rather than their recounting of a plot.

Pupils participate in birthday parties and other celebrations, in the unit or with other pupils in the school. They are supported by key workers when necessary, but not as a matter of course.

Orientation, movement and mobility

(As far as their physical abilities allow:) Pupils recognise and remember familiar routes and environments and navigate them in the presence of a keyworker. They have the orientation and mobility skills needed to explore new environments, but need support to travel within them.

They may use the same limited range of exploratory strategies each time. Lack of confidence in new settings is as great an issue as physical safety.

Each pupil has an individually designed programme of movement-based sessions (for example, mobility, PE, swimming, physio, structured movement, horse-riding). These aim to increase confidence and skill in moving through space and interacting with the physical world.

Pupils' abilities and preferences are assessed, formally and/or informally, to identify appropriate mobility strategies for them to use when travelling independently or semi-independently. These may include, for example, trailing a wall when lighting conditions are poor or the route is crowded; stopping at junctions and scanning the environment visually; identifying potential changes in floor surface or level and seeking support from an adult; working towards using formal mobility techniques and/or aids. Pupils are supported in using these strategies on familiar routes.

Landmarks on specific routes are pointed out to pupils, and pointed out again in reverse order on the return journey. Landmarks may be visual, auditory and/or tactile, but must be consistently available.

Pupils are increasingly expected to find their own way to rooms used for specialist teaching sessions, usually with a cue (for example, a symbol card Velcroed to their rolator) to remind them of their destination. Staff are nearby but unobtrusive.

For many pupils, travel to a teaching room or other destination is an activity in its own right, and often a demanding one. Pupils may need time to relax on arrival, before meeting the further demands posed by the teaching activity.

Pupils are given choices within mobility sessions, for example choosing their destination or choosing an activity which requires travel, such as returning a utensil to the food tech. room.

Pupils are given opportunities to explore and map new environments with support. These may be within the school setting or on trips – if the latter, trips must be repeated several times at least to enable pupils to learn to access and integrate new information.

Mobility sessions incorporate outdoor routes with a variety of surfaces and challenges. Pupils may need considerable support initially, especially in weather conditions which affect the sensory information they receive (eg: wind, rain).

Pupils begin to learn formal mobility techniques if appropriate (for example, using a hoople). These must be presented in such a way that pupils see immediate value in their use.

Ownership of learning

Pupils begin to differentiate between actions they can complete independently and those with which they need help.

They work co-operatively or reactively with adults on familiar activities.

They rarely generate solutions to new problems but may do so if very highly motivated. They may be prompt-dependent and need considerable encouragement to use their skills independently.

Pupils are encouraged and expected to use their skills to the full in activities with strong intrinsic motivation (for example, snack time, dedicated ICT sessions). Staff model and support pupils in asking for help when they need it, and indicating exactly what help they want. Self-care routines are extended to include pupils indicating when they need help with specific activities.

Staff share the control of activities with pupils whenever possible – for example, by taking turns to help each other complete a task.

Learning activities encourage imitation by pupils of actions modelled by staff. Pupils with sufficient residual vision are encouraged to copy visual models; those who need physical modelling are encouraged independently to repeat the actions used.

For some activities, pupils have folders showing one stage of the activity on each page. These are used both to anticipate and review the activity, and also to help pupils become less dependent on staff by using the book to remind them of each next stage.

Staff use routine mismatch (delaying the next step in a routine, or getting it wrong) to stimulate pupils' independent activity and reduce prompt dependency.

Pupils are encouraged to make choices from an increasing number of options (for example, choosing who to sing to next at the end of the day; choosing what to eat at lunchtime; choosing which role to take in drama). Prompts (for example, photos of peers) are used where necessary. Pupils are encouraged to negotiate with staff, for example by suggesting other options if they don't like the choices offered. Free choices are introduced where possible, usually in familiar, highly motivating situations.

Break times are structured to offer pupils a choice of independent and/or interactive leisure activities. There is a particular emphasis for older pupils on choosing independent leisure activities which are not purely stereotypical.

The range of teaching sessions includes:

- those using familiar skills in new situations (for example, snack time inclusion with a more able group);
- group sessions with both more and less able peers (for example, circle time, library, greetings);
- sessions offering a mixture of old and new learning;
- opportunities for pupils to take charge of the session ('be the teacher').

Teaching sessions are planned to incorporate skills learned in other contexts, to support generalisation of learning.

Staff encourage pupils' awareness of safety issues, initially through the use of routines (for example, always moving away from the toaster before it is switched on; always waiting for the green man before crossing the road).

Mobility teaching incorporates both independent and assisted travel. Pupils are encouraged to find their way independently to other areas of the school and/or to choose where they would like to travel to during mobility.

Responses to routines and changes

Pupils generally adapt to single changes in routines, but withdraw or become distressed if there are multiple changes. They are curious about new things provided they are well-supported and secure.

They accept working with a range of familiar adults, provided these use appropriate strategies and routines; they still need the security of very familiar keyworkers for new activities or in unfamiliar contexts.

Pupils still have one or two named keyworkers, but are timetabled to work regularly with an increasing range of skilled adults.

Some teaching sessions (for example, food technology, science) are led by specialist subject teachers from the main school with support from MSI Unit keyworkers.

Staff sabotage familiar routines by making a ‘mistake’ in their own contribution or by needing urgently to do something else during the routine. Pupils are encouraged to take responsibility for repairing the breakdown by continuing independently or giving appropriate directions.

Routines within activities are sometimes sabotaged, for example by the right equipment being unavailable. Pupils are supported in solving the problems created. It is recognised that this challenges many pupils both cognitively and emotionally, because of the security which routines provide, and the support provided takes account of this.

Pupils may be included with other groups of students, in the main school or a nearby school, for specific weekly sessions. Inclusion is carefully planned and managed to ensure that it is genuinely valuable for both MSI and host students. Most students are supported by keyworkers [for details, see ‘Planning inclusion for children with MSI’ by Heather Murdoch, *Special Children*, 157, Nov-Dec 2003].

Pupils participate in school-wide celebrations, festivals etc. with support from keyworkers. Participation is carefully managed to take account of individual needs, such as sensitivity to high background noise levels.

Some weekly teaching sessions have a repeated overall framework, but content which changes from week to week – for example, food technology, science, art.

Single changes to routines are regularly introduced and pupils' responses carefully noted. Changes are explained to pupils (for example, a teaching room is needed for a performance). Explanations generally need to be supported by non-verbal cues, such as visiting the room and seeing the other activity within it.

When pupils are generally confident with one change, two changes are introduced (for example, carrying out a small group activity with one fewer pupil than usual and in a different part of the classroom). Changes are chosen to mimic those which may occur naturally and unavoidably, for instance through staff and/or pupil absence. Pupils' reactions are closely monitored, and they are given as much support as necessary.

Staff are alert for actions by pupils which change routines in some way; these are usually followed through.

The teaching approaches used at Phase 3 include routine mismatch (delaying or altering the next step in a routine), and working with pupils in pairs or groups, which increases the likelihood of routine breakdown.

MSI Unit Curriculum: Phase 3

Case Study: Amanda

Amanda is sixteen years old and is working at Phase 3 of the MSI Unit Curriculum. She faces a range of challenges in learning:

- she has limited vision, with restricted visual fields, short-sightedness and poor contrast sensitivity;
- she has a fluctuating moderate-severe hearing loss;
- she has asthma, eczema and a number of allergies;
- she is often very impulsive in her reactions, and has no sense of danger, especially regarding what is safe to eat;
- she has severe developmental delay.

Amanda enjoys learning, especially about how things work. She loves music, water and being outdoors.

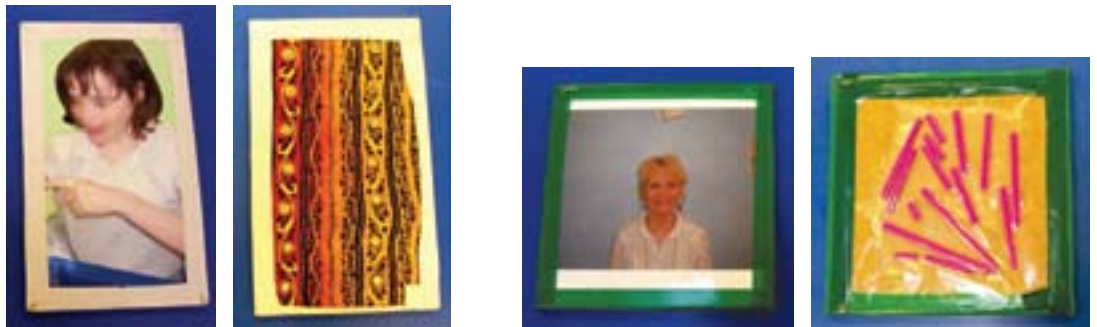
Learning challenges

Amanda often finds her world hard to understand. Her sight and hearing vary from day to day, so that the information she gets is distorted and unreliable. She relies on sight but has difficulty processing visual information, especially in busy contexts – she uses and understands clear symbols, for example, but has difficulty perceiving photographs. Sustained visual attention quickly tires her. Her health also sometimes affects her ability to concentrate and learn. Amanda often enjoys interacting with the world around her, but she finds interaction demanding and needs frequent breaks from it. She often tries to break or eat objects and her behaviour used to be very challenging, with split-second responses endangering herself and others.

Progress and priorities

Amanda has made very good progress over the past few years. Currently:

- she understands and uses large computer-generated symbols backed on unbreakable plastic. Her vocabulary has increased from 10 symbols to 50 in three years;
- she communicates using her symbols, tactile photo cards of familiar people (see below), a few signs and clear non-verbal means;



Pupils and staff have multi-sensory photo cards as their symbols. Tactile photo cards of pupils are oblong, white-edged and backed with textured fabric; those of staff are square, green-edged and backed with small items under plastic

- she is much less impulsive and more relaxed than previously, although her emotional security and behaviour still need considerable support at all times;
- she usually anticipates familiar routines and structures and can interact in increasingly sophisticated ways – for example, sorting sets of objects; participating with support in small group activities. She understands that she can negotiate with staff and often does so;
- her visual attention span has lengthened and she has learned to watch and follow an adult's actions without always needing physical support. Similarly, she has become more aware of her peers and has occasionally copied their actions;
- she is beginning to recognise and enjoy her own achievements.

Current work with Amanda centres on increasing her autonomy (by developing both practical and decision-making skills) and on strengthening her sense of self and her confidence in interaction with others.

Daily site walk

Each day Amanda has a short trip outdoors in the school grounds. This activity has been part of her timetable for several years, and is a key factor in maintaining her emotional stability and motivation. It gives her a break from interaction with people and also gives her time outdoors, which she loves.

When Amanda worked at Phase 2, the walk had educational value in its own right. At Phase 3, an obvious progression would be to talk about the walk with Amanda while it takes place, but she has firmly and consistently rejected occasional attempts at this. Instead, we have searched for ways to develop the activity without changing its nature or detracting from its value:

- before her walk, Amanda now chooses which hat, gloves, boots and coat she will wear, or alternatively helps to put on her suncream. She is working towards choosing appropriate clothing for the day's weather;
- during the walk, Amanda interacts with various landmarks – running a stick along railings, for example. On the return journey she interacts with the landmarks in the reverse order;
- after the walk, Amanda operates a series of Powerpoint slideshows about the different landmarks, using a single switch. We are still assessing how much information she gets from photographs, and those used in this activity are stripped of their background, backlit and well-cued by the walk beforehand. A typical slideshow is shown on the next page. We have recently introduced a series of books using the same pictures, for Amanda to share with a staff member.

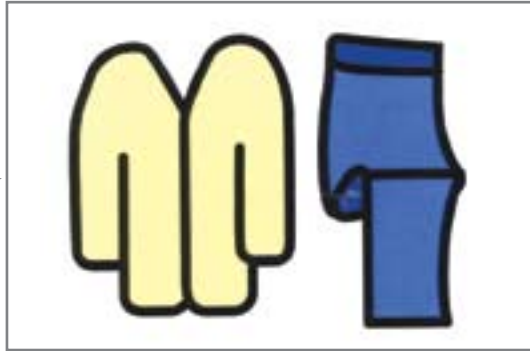
Amanda accepts and usually enjoys these newer aspects of her walk, and some of the learning objectives have in turn been transferred to other sessions – for example, her greetings routine now includes short Powerpoint sequences. The changes have allowed us to maintain the site walk, which is very important to Amanda, whilst working within Phase 3. The site walk, like all Amanda's activities, is cross-curricular, and some of the links are shown overleaf:

The context of learning

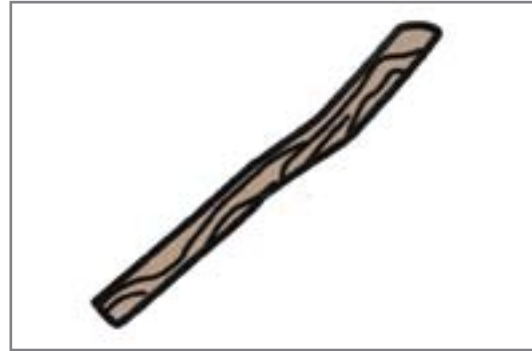
The MSI Unit Curriculum addresses the contexts in which activities occur, as well as the objectives, strategies and expectations which they embody. At Phase 3, pupils are:

- using weekly timetables with key daily routines;
- learning to interact with peers and a range of adults;
- working in a range of learning environments;
- experiencing change and greater autonomy in a range of contexts.

Amanda's site walk
railings



Amanda's symbol for 'site walk'



Stick symbol used to indicate this particular slideshow



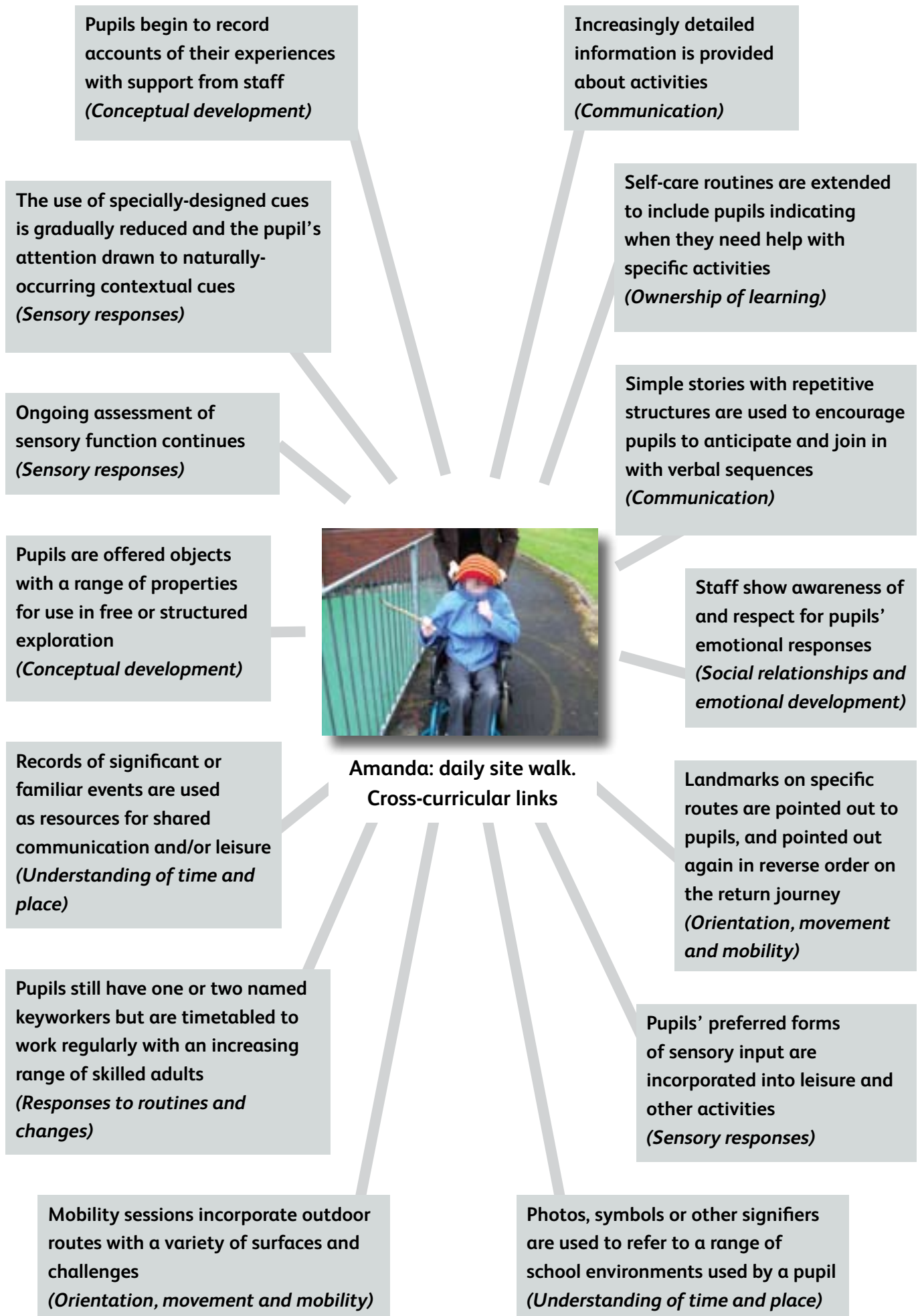
Photos stripped of all non-essential background



Same photos repeated with background shown



One of Amanda's slideshows about her site walk



These aspects of Amanda's programme are outlined below.

Timetabling

This is Amanda's current timetable:

Day/ time	Monday	Tuesday	Wednesday		Thursday	Friday
9.00	timetable Dawn	timetable Mary	timetable Lynne		timetable Mary	timetable Lynne
9.30	greeting session Dawn	greeting session Dawn	food tech Lynne	group snack preparation Mary	greeting session Mary	greeting session Lynne
10.00	Library Lynne	sorting and matching Lynne			sorting and matching Mary	story Dawn
10.30	snack	snack	snack inclusion		snack	
11.00	site walk review hand/foot massage Christine	new site walk review Mary	site walk review head massage Lynne		site walk review head massage Lynne	site walk + science Christine
12.00	lunch	lunch	lunch		lunch	lunch
12.45	leisure	leisure	leisure		leisure	leisure
1.30	art Emma	drumming Sharon	drama Mary		music Mary	swimming Gareth
2.30	snack	snack	snack		snack	snack
2.45	review day Emma	review day Mary	review day Mary		review day Mary	review day Dawn
3.00	collective worship Emma	collective worship Mary	collective worship Mary		collective worship Mary	collective worship Dawn

Each day begins with timetable work and ends with review and collective worship. At Phase 3, different staff members often lead the same activity on different days (*Responses to routines and changes*) – the security of trusted adults and familiar activities make this a positive experience for Amanda, and she identifies and enjoys the small changes brought to an activity by different staff. With timetable work, especially, her preferences for one adult’s singing and another’s conversation have over time created quite different sessions. The key factor here is that Amanda has been fully involved in negotiating the changes (*Ownership of learning*).

For most Phase 3 pupils, the beginning and end of the day are the only consistent daily routines. Amanda also has her site walk, although this again is carried out by several members of staff. Two different routes are also used (‘site walk’ and ‘new site walk’), and the walk and review are followed by different massages or other activities. Amanda’s other learning sessions vary with the days of the week.

Amanda uses computer-generated symbols to receive information and make choices – she has two differently shaped and coloured backing boards, which indicate whether we are telling her something or asking her a question (*Communication*). Key symbols (‘drink’, ‘I need a break’, ‘talk to me’, the day’s activities) are kept within her reach and view. Each day on arrival she views her timetable for the morning; after lunch, she previews the afternoon’s activities. A folder containing the same symbols, backed on card rather than plastic, is later used to review her day (*Understanding of time and place*).

A key aspect of Phase 3 is pupils’ growing understanding that places, events and people which are not immediately accessible still exist, and can be thought and talked about. Photos, sound stories, symbols and artefacts (including those produced by pupils) are used to anticipate or recall specific aspects of events (*Conceptual development*). Amanda uses micro-stories on Powerpoint and paper to review different aspects of her arrival at school (taking her coat off, for example) and different landmarks on her site walk. The functional links between preview/review and the events themselves are emphasised whenever possible – for example, making and using a graphic shopping list.

Most of Amanda’s learning activities still focus primarily on what happens during the activity, rather than what is produced at the end of it. This focus is gradually changing, however. Food interests Amanda greatly, so currently her snack and cookery sessions provide the most motivating end-products. She is

also sometimes interested in making and printing pictures using touch-screen drawing programs, and occasionally enjoys making marks on paper with crayons or paint (*Conceptual development*). These pictures are pasted into her scrapbook and occasionally briefly reviewed with her. At present this is not an activity she finds interesting, but we anticipate that in the future she will enjoy looking back at her work over time.

In art sessions over recent terms, Amanda's group have made a series of large sculptures – some from junk (boxes covered in chicken wire, then papier-mache, and painted); others woven on huge frames using strips of fabric. These projects, developed over time, have helped pupils to develop a sense of progression and have also demonstrated that absorbing processes such as papier-mache can result in lasting products (*Understanding of time and place*).



Most of Amanda's school activities are functional and/or creative, with an emphasis throughout on negotiation between Amanda and her keyworkers and peers (*Ownership of learning*). Her sorting and matching work, for example, uses kitchen items among others, with a view to table setting and other kitchen skills. The pace of the session, the items used and its finishing point are negotiated between Amanda and the staff member working with her. Initially Amanda's contribution to this was non-verbal and undifferentiated – pushing items away, for example. Over time, she has learnt to express herself more clearly – for example, choosing between the signs for 'different' (ie: different equipment, program or section of activity) and 'finished' when they are signed hand-under-hand.

Interaction with others

In the past, Amanda has participated in group activities with 1:1 support, but her attention to peers and other staff has been minimal. This has changed over the past year and her timetable has changed in response. About half her sessions are now with other pupils, with the rest taught individually. In group work she may be supported 1:1 or 2:3, or (as a halfway house) 2:2, where she and another pupil share two adults who move between them (*Social relationships and emotional development*).

This year, for example, Amanda has joined a library session, bringing the number of pupils attending up to five. One adult leads the session, and three more support pupils. Each story is repeated for half a term and over this time pupils develop greater participation and the leading of sections of the narrative (*Communication*). Books, objects, puppets, songs, musical instruments and switches with recorded sounds are used to tell and respond to the story. Because the activity is new to Amanda, she has an individual story session on Fridays using the same resources. The aim is to boost her understanding of how the session runs, and also to make the props more familiar and less distracting for her.

Some group activities focus on content (for example, art and drama); others focus on interaction with peers (for example, greetings and music). For Amanda at present, these sessions focus on shifting attention between members of the group and on sharing and passing objects – a particular challenge for her (*Sensory responses; Social relationships and emotional development*). Her level of support sometimes reflects the risks of using particular items of equipment rather than her cognitive or social needs.

Most pupils at Phase 3 spend some time included with other classes in the main school or at the neighbouring school for pupils with hearing impairments. Sessions are chosen to reflect pupils' specific needs and/or interests (one pupil, for example, sings in the school choir). Amanda is still learning about being part of a group of very familiar pupils. Her inclusion is currently with the Phase 4 pupils for one snack time a week, so that she can see their spontaneous interaction (*Social relationships and emotional development*).

Learning environments

Amanda knows the main routes around the school, and the parts of the grounds used for her site walks. With support from familiar staff, she attends a number of sessions taught by other teachers in other rooms (art, drumming, science, music, swimming) (*Responses to routines and changes*). She also identifies different areas of her base room by their purpose, especially the table which she uses for individual work and the large group table where activities such as snack and collective worship take place.

One Monday in every four, Amanda goes on a day trip out with six other pupils. These trips either link to form specific projects (for example, repeated trips to Symphony Hall to work on a musical composition project), or they relate to other learning activities (for example, visiting Birmingham's Ragmarket to buy fabric for class-wide co-operative weaving) (*Understanding of time and place*). Amanda's classmates also visit the local shopping centre once a fortnight, buying individual pieces of fruit which they eat on return. Amanda does not yet accompany them regularly because, whilst her self-control regarding objects has improved greatly, it still needs to improve a little more for shopping to be a positive experience.

Change and autonomy

Amanda's sight and hearing fluctuate, so that the information she receives about the world around is unreliable. Unanticipated changes to her routine can quickly make her confused and threatened, and she may respond by withdrawing or with impulsive and challenging behaviour. Many of Amanda's school activities incorporate work on managing and responding to change – drama sessions, for example, keep the same structure for a term at a time, but within this structure the order and content of experiences vary from week to week (*Responses to routines and changes*).

Amanda is usually able to work co-operatively with an adult and, with support, to ask for help when she needs it. Activities such as making her own drink help her learn to identify when and what kind of help is needed (*Ownership of learning*). She will always need assistance with some activities, and the more she is able to direct others how to help her, the greater her autonomy will be.

Amanda is gradually learning to tolerate activities not going to plan – sometimes because a task is difficult for her (sorting cutlery, for example); sometimes because routines are deliberately sabotaged by staff – perhaps the jug for her drink is missing, or she visits the bathroom before snack rather than after (*Responses to routines and changes*). These experiences are very carefully planned and Amanda's reactions are watched very closely so that she can be given as much support as she needs. Communication is key, in terms both of cueing Amanda about imminent events, and of responding to her symbols and signals.

MSI Unit Curriculum: Phase 4

Features of learning on entry to Phase 4

Pupils at Phase 4 are generally working between P Levels P5-P8. The learning of pupils entering Phase 4 usually has the following distinctive features:

- **Social relationships and emotional development**
Pupils are able to express their feelings intentionally and clearly and to show some empathy towards others. They initiate and briefly maintain interactions with peers. They respond in small group situations and are beginning to understand social codes of behaviour such as sharing.
- **Communication**
Pupils understand and use symbolic communication (speech, signs, symbols, pictures or miniaturised/partial objects of reference, accessed directly or through ICT), supplemented by non-verbal communication.
- **Conceptual development**
Pupils understand and participate in early academic work with support (for example, reading key words with symbols attached; counting to five). They are aware of print, braille, Moon or another formal recording system.
- **Sensory responses**
Pupils integrate information from different senses. They understand the implications of familiar sensory information and seek further information if necessary.
- **Understanding of time and place**
Pupils refer to past and future events and talk about people who are not present.
- **Orientation, movement and mobility**
(As far as their physical abilities allow:) Pupils use familiar environments confidently and competently. They can explore and map new environments in the presence of a keyworker, and use appropriate mobility skills to follow known routes.
- **Ownership of learning**
Pupils complete familiar activities independently and/or indicate when help is needed.
- **Responses to routines and changes**
Pupils generally accept changes in routine if given appropriate explanations. They transfer familiar skills to new situations with support, for example counting in different contexts.

Pupils at Phase 4 use many different areas within the school and their timetables are subject-based. They spend some time included with other groups of pupils, either in the main school or (if they communicate through signing) in the neighbouring school for pupils with hearing impairments. Many learning activities remain cross-curricular, to promote generalisation and reduce prompt- and content-dependency.

MSI Unit Curriculum: Phase 4

The MSI Unit Curriculum for pupils at Phase 4 seeks to develop their learning as follows:

Social relationships and emotional development

Pupils are able to express their feelings clearly and show some empathy towards others. They initiate and briefly maintain interactions with peers. They respond in small group situations and are beginning to understand social codes of behaviour such as sharing.

They can sustain extended interactions with trusted adults who know them well, although the adult may need to structure the interaction and repair breakdowns.

Staff encourage pupils to talk about their emotional responses and to link these to events (for example 'I'm cross because...'). Pupils are encouraged to be aware of others' feelings and responses, especially where these are linked to their own behaviour.

Stories in library and drama sessions are used as a basis for discussion of the characters' feelings and actions.

Pupils are encouraged to engage in role play, for example by having dressing-up clothes readily available. Staff may initiate and/or join in with role play, especially to model 'what if?' scenarios.

Social communication (for example, greeting, thanking, maintaining overt interest in another's utterance) is modelled by staff and increasingly expected from pupils.

Staff model decision-making processes using speech, signing and/or other forms of language – for example, 'I want the last cake, but Aftab wants it too and he hasn't had a cake yet, so it's fair that he should have it'.

Pupils are increasingly expected to function as part of a group. They are encouraged to attend to peers as well as to staff, help and learn from each other, and manage the social and communicative aspects of group learning alongside the session's content. Many pupils will need specific support to work in this way; for example, identification by staff of each new speaker or assistance to find and use a specific learning resource.

Pupils are included with other groups of peers (using similar communicative modes) for social activities, to give a wider range of opportunities for interaction.

Pupils are supported in hosting visitors to the school and in communicating where appropriate with other strangers. Staff model and discuss with pupils the different social rules which apply to interaction with unfamiliar people. Visitors and others are given guidance on how to respond (for example, accepting longer pauses in interaction than would normally occur).

Established group activities such as snack time and collective worship are modified to encourage pupils to organise sessions co-operatively, with adult support only if needed.

Break times are often left unstructured, with pupils left to choose and organise their own activity.

Pupils develop independent relationships with adults in a range of roles (catering staff, specialist teachers, shop staff etc.), rather than such relationships being mediated through keyworkers.

Communication

Pupils understand and use symbolic communication (speech, signs, symbols, pictures or miniaturised/partial objects of reference, accessed directly or through ICT), supplemented by non-verbal communication.

They link two or more words, signs or symbols in expressing ideas. They use a range of communicative intentions, for example greeting, drawing attention to, requesting and rejecting. In communication with adults, they show joint attention and emergent understanding of conversational rules such as gaining attention, turn-taking and maintaining a topic. Their communication may still be idiosyncratic in form and they may be unwilling to communicate with less familiar people.

Staff model increasingly complex language structures, in their communication with pupils and with each other. Staff routinely communicate with each other using modes that are accessible to pupils (for example, signing to each other if pupils use sign), but they no longer restrict the complexity of messages to that already understood by pupils.

Staff model an expanding range of communicative functions, and support pupils in using these – for example, describing; questioning; reviewing; explaining preferences.

Pupils are encouraged to ask and answer questions and to take increasing responsibility for finding out and passing on information. Staff model and explain the use of different interrogatives (for example, who, where, when, why)

Pupils are increasingly expected to recognise and try to repair breakdowns in communication, initially in conversation with adults and later also with peers.

For pupils with useful residual vision, graphic communication is used to support understanding and expression. Wherever possible pupils are encouraged to move towards generating their own drawings or symbols by hand, because this is the most flexible approach. Some pupils will need to use ICT or select from available symbols/photos/drawings.

Pupils are encouraged to interact appropriately with a range of people in different contexts within the wider community, with attention to both the style and the content of interaction – for example, ordering food from school catering staff; buying a birthday card for a peer in a local shop.

Pupils are included where possible with peers who are more competent communicators. This must be carefully managed to maintain pupils' confidence and self-esteem.

Pupils who sign are given the opportunity to use a member of staff as an interpreter when needed. They are encouraged to recognise when this is appropriate and necessary and to take the lead in asking staff to act in this role.

Stories, including myths and traditional tales, are repeated over a number of sessions in library and drama. Pupils are encouraged to recount stories with decreasing support as time goes on, and to suggest extensions or other changes, using props or other concrete prompts if necessary.

Conceptual development

Pupils understand and participate in early academic work with support (for example, reading key words with symbols attached; counting to three). They are aware of print, braille, Moon or another formal recording system.

Abstract concepts must be tied to familiar and/or practical activities.

All materials are appropriately designed and presented, with ongoing functional assessment of pupils' sensory responses to check for changes in their needs. It is likely that most materials will need to be made or adapted.

Topic work is increasingly emphasised as a means of introducing different academic subjects in a meaningful context. The links between different topic activities are made overt, as are links between work in school and the wider environment.

Pupils share a range of books with adults and peers, some about real familiar people and their own activities and some published story or non-fiction books. They are encouraged to use contextual and other cues in decoding the text and/or retelling the story.

Different forms of social symbols (notably those used for toilets) are drawn to pupils' attention.

Pupils are introduced to the alphabet through print, braille, Moon, fingerspelling and/or keyboard use.

Pupils begin to record accounts of their experiences using recorded text (through attempted writing, keyboard use and/or vocal recording) as well as drawings, photos, symbols or artefacts. They are supported in sharing their accounts with staff and peers.

Pupils begin to use formal systems to record ongoing events (for example, a tally chart to record the frequency of different weather conditions; a register grid to record the presence or absence of class staff and pupils each day). They work towards using these systems independently, recording either manually or through ICT. Staff support them in interpreting, collating and reflecting on the information.

Pupils are introduced to formal value systems (for example, the values of different coins) using functional activities. This work is begun in class and reinforced in functional settings.

Pupils are given frequent opportunities to problem solve. This may be within established activities or routines (for example, when equipment 'cannot' be found) or as an activity in its own right (for example, pupils may be given certain materials and tools and asked to work out what they can do with them).

Sensory responses

Pupils integrate information from different senses. They understand the implications of familiar sensory information and seek further information if necessary.

They are greatly disadvantaged in non-optimal environments – for example, with high background noise levels, or where lighting causes glare.

Ongoing assessment of sensory function continues.

Pupils are given experience of non-optimal visual and acoustic environments, and are encouraged to identify and communicate ways in which these could be made better for them (for example, by switching on lights or closing doors).

Pupils are helped to identify the strategies which best meet their individual sensory needs – for example, needing to sit in a particular place in the classroom or to use a brightly-coloured plate at mealtimes; remembering to stop and listen at corridor junctions or to trail walls if lighting levels are poor. Strategies are always presented positively by staff, and pupils are increasingly encouraged to take responsibility for remembering to use them, and if necessary communicate them to others.

Pupils increasingly take responsibility for day-to-day cleaning and maintenance of hearing aids, spectacles and low vision aids – for example, telling staff when their hearing aids need new batteries. Staff closely monitor their performance in this area, ensuring that aids remain fully operational.

Pupils who use hearing and/or visual aids of any kind are encouraged to learn to use them as independently as possible.

Pupils are increasingly expected to identify and interpret naturally-occurring contextual cues (for example, staff getting riding hats from the cupboard) and to ask for further information if appropriate.

Understanding of time and place

Pupils refer to past and future events and talk about people who are not present.

They can anticipate or review a week's main activities using a calendar system and are aware of seasons, annual festivals and local community amenities. They need overt support to anticipate what will happen, because they receive too little environmental information to rely on contextual cues (for example, they may need to be told when someone new enters the room).

Staff and pupils discuss events that happen at home as well as those in school.

Pupils contribute directly to their home-school diaries (for example by drawing their favourite event of the day, or helping to record a vocal message to take home) and are read any other messages written by staff. Pupils and their families are encouraged to use home-school diaries as a basis for discussion about the day.

Pupils gradually take responsibility for developing and maintaining their own timetables, using prompts (such as a larger weekly timetable on the wall) if necessary.

Pupils work with staff on monthly and yearly calendars of significant events. These provide the framework for linked practical activities – for example, buying and writing cards for a peer’s birthday. The responsibility for developing and using these calendars is gradually passed from staff to pupil.

Pupils regularly use an increasing range of environments including local community facilities (for example, local shops). Outings are prepared and reviewed in school, with pupils taking increasing responsibility for developing prompts and resources such as shopping lists. Staff analyse and fill any gaps in pupils’ knowledge of the purpose and functioning of different facilities, working closely with pupils’ families in developing appropriate programmes.

Many pupils have difficulty with time management – for example, completing the tasks involved in getting ready to go home before the deadline of the transport arriving. Appropriate support systems (such as egg timers and later kitchen timers) are used to help pupils become more aware of time passing and less dependent on repeated prompts from staff.

Pupils are encouraged to develop overt awareness of their own and other cultures, for example through discussion, visits, books, artefacts, performances and the observance of festivals.

Pupils are offered free choices wherever possible. Concrete prompts (for example, photos of peers) may still be used when pupils are choosing from a limited range of options, but their use is gradually decreased.

Pupils are encouraged to review events evaluatively, for example deciding which part of an event they liked best.

Orientation, movement and mobility

(As far as their physical abilities allow:) Pupils use familiar environments confidently and competently. They can explore and map new environments in the presence of a keyworker, and use appropriate mobility skills to follow known routes.

They need time to explore new environments before using them.

Pupils learn appropriate formal orientation and mobility techniques, adapted for their specific sensory and physical needs. These may include the use of appropriate equipment (for example, long cane or electric wheelchair); techniques to identify and avoid obstacles and maintain safety; mapping skills for new environments, and the use of landmarks.

Pupils practise independent mobility, using appropriate techniques, in both indoor and outdoor settings. Functional contexts are used – for example, taking a message to a different class.

For many pupils, travel is an activity in its own right, and often a demanding one. Pupils may need time to relax after travelling to a teaching room before beginning the next activity.

Pupils are given opportunities to travel out of school, on regular outings to the same destination and on one-off trips. These trips are prepared and reviewed, and pupils are supported in mapping the settings of repeated trips (for example, identifying the location of the ticket office at the local railway station). Trips also give pupils the opportunity to use sighted guide or other mobility techniques in unfamiliar settings.

With support from staff, pupils begin to develop and use maps of regularly visited areas (for example, the local shopping mall). Maps are highly individualised in both form and content, in order to be accessible to pupils and to provide information which they can understand – for example, a plan showing the location only of frequently visited shops, identified by their logos.

Pupils use a range of different forms of transport on trips out from school (for example, walking or travelling by wheelchair to the shopping centre; taking the bus to the local library; travelling by train to the city centre). They plan and discuss appropriate transport for outings with staff, and increasingly take responsibility for purchasing and looking after their own tickets.

Ownership of learning

Pupils complete familiar activities independently and/or indicate when help is needed.

They work in partnership with adults, taking the lead in response to delays or breakdowns in routines. They respond to a range of prompts, including verbal prompts, and can imitate others' actions after the actions are completed.

They may seek constant feedback about their performance.

Pupils are supported in identifying and communicating the specific types of help they need – for example, switching lights on in corridors; sitting directly facing a speaker.

Pupils are given responsibility for specific roles in the class group, such as setting the table for snack time. These roles are frequently varied, to avoid reliance on routine and so that the sense of challenge and responsibility is renewed.

The physical environment is arranged in a way that supports pupils' independence – teaching rooms are uncluttered; items are always put away in the same places; equipment is accessible; drawers and cupboards are labelled when appropriate; each pupil has their own individual storage space.

Timetabling takes account of the need of most pupils with MSI for additional time to complete activities independently.

Pupils' awareness of safety and danger is fostered by discussion with staff, role play, the use of drama and stories and on trips out. Specific individual safety issues (for example, due to poor sight or epilepsy) are identified and incorporated.

Where appropriate pupils use star charts or similar strategies for self-care routines. Pupils are involved in deciding whether to use such strategies, and in their design and implementation.

The responsibility for identifying the next activity, and for moving to the right place with the right resources, moves increasingly from staff to pupils. Some pupils will need prompts (for example, photos of equipment needed for each activity) – if so, they are encouraged to be responsible for keeping and using the prompts.

In art, design and technology and other creative activities pupils are supported in planning, completing and evaluating their own projects, working individually or in a small group. Initially they will need considerable support at every stage, but this is reduced as pupils' confidence grows.

Pupils complete an increasing range of self-care activities independently from start to finish, or direct others to do so – for example, ordering and collecting their lunch from the counter, or asking a staff member to carry it for them.

Pupils are encouraged to lead small group sessions, beginning with very familiar activities such as greetings or collective worship.

Responses to routines and changes

Pupils generally accept changes in routine if given appropriate explanations. They transfer familiar skills to new situations with support, for example counting in different contexts.

They can work successfully on a new activity, in a new environment or with an unfamiliar person provided only one or two of these changes occur at a time. They rapidly lose confidence if there are too many changes too quickly.

Key routines which pupils use to regulate their day (for example morning arrival routines) are maintained unless pupils act to change them.

Rhythm and pattern continue to be key elements of many activities. Pupils are encouraged to engage with more complex rhythms and sequences and to notice and respond to patterns in a range of contexts.

Pupils are encouraged to seek to understand changes in order to increase their sense of autonomy – for example, to ask a familiar adult why furniture has been moved. Staff discuss changes with pupils ahead of time when possible, talking through the pros and cons and encouraging pupils to express an opinion. Pupils are also helped to evaluate changes after they have happened.

Staff generate opportunities for pupils to use learned skills in new contexts and to solve difficulties using skills or knowledge learned previously. Pupils are given as little support as possible in transferring skills or generating solutions.

Appropriate initiatives by pupils to change routines (for example, carrying out an activity in a different way or place) are acclaimed and supported wherever possible.

Pupils are included with groups of pupils from outside the Unit for some sessions to gain experience of different learning environments. Host groups and sessions are carefully chosen to build on pupils' strengths and preferences. When necessary pupils are supported individually by keyworkers from the Unit, but wherever possible direct support is gradually reduced.

Many pupils continue to find change difficult and need to develop specific strategies for dealing with its emotional impact – for example, always keeping a particular precious object in their school bag. Pupils are helped to develop appropriate strategies where needed, and these are respected by staff.

Pupils increasingly develop and maintain their own daily and weekly timetables, and are supported in changing these when necessary to reflect unusual or one-off events. Staff supporting pupils to anticipate one-off events (such as trips out or performers visiting school) increasingly emphasise the positive, enjoyable nature of the event rather than the change in routine per se. There is a growing expectation that pupils will enjoy engaging with novel activities provided they are well prepared for these.

Opportunities to generalise learning are emphasised. Pupils are given repeated opportunities to use current skills and knowledge in new contexts (for example, buying items using money at the weekly school coffee morning, in shops etc.)

MSI Unit Curriculum: Phase 4

Case study: Harry

Harry is thirteen years old and has recently begun work on Phase 4 of the MSI Unit Curriculum. He faces a number of challenges in learning:

- he is profoundly deaf with no responses below 110dB;
- he has a range of visual problems, including limited fields of vision, poor light-dark adaptation and long sight;
- his balance is poor;
- his vision and balance are deteriorating (he has Usher Type 1);
- he has severe developmental delay.

Harry is increasingly confident in his own abilities. He has good relationships with both adults and other students, and enjoys most activities, especially those involving food.

Learning challenges

Harry gets no information through hearing and his vision, on which he relies completely, is becoming progressively more limited and less reliable. He relies on routine and order to make his world manageable and secure. One of his major challenges is to use routines for his benefit, rather than being ruled by them in a way that limits his world still further. Harry finds change hard to cope with unless it is fully explained in a way that he can understand. He needs considerable support in generalising his skills to a range of settings. Harry often lacks the confidence to risk making errors, preferring to behave in ways that feel safe to him – observing rather than participating, for example, and copying others rather than acting independently.

Progress and priorities

Despite these challenges, Harry has made considerable progress over the past few years. Currently:

- he communicates using BSL signs, graphic communication, text with symbols and with pictures illustrating BSL signs (from the computer programs 'Writing with Symbols' and 'Let's Sign and Write' respectively), photos and non-verbal means;
- he interacts spontaneously, though often hesitantly, with adults and with his peers;
- he works as part of a group, not yet taking the lead but beginning to express his own opinions;

- he is independent in many self-care activities;
- he is increasingly confident in new settings provided he is supported by a familiar adult;
- with help, he develops and uses strategies to manage unpredictable situations – for example, using a long cane to walk in crowded corridors.

Calendar usage

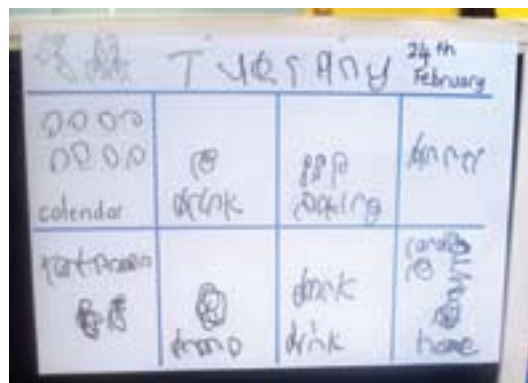
Each morning Harry develops his timetable for the day, drawing representations of the main activities onto a 2x4 grid, colour-coded for the day of the week. Each box in the grid can be divided into two to allow greater flexibility in the number of activities recorded. To reinforce his timetable work Harry uses computer-generated symbols (from 'Writing with Symbols' and 'Communicate in Print') and sign graphics (from 'Let's Sign and Write').

Over time, Harry's timetable work has progressed through a number of stages:

- at first he built his timetable with 1:1 support, by choosing the appropriate symbols to velcro onto a laminated grid. The staff member gave the BSL sign for each activity and Harry copied it. New symbols were paired with photos until he learnt their meaning;
- the written word for each activity was later added beneath the symbol, so that Harry could associate the activity, the symbol, the written word and the sign;
- Harry began to draw the symbols onto a colour-coded grid which a staff member made with him from a template, initially also completing the laminated version to reinforce his understanding. At first all Harry's drawings were circular, although they held distinct meanings for him. Over a period of months staff modelled how to include a greater amount of detail in drawings without copying the symbol exactly;
- the day name was written at the top of the page and Harry was encouraged to over-copy this. Over time he progressed to copying the name without needing the pencil guide, and to over-copying some of the activity words;
- Harry's signs are often small and indistinct due to his under-confidence. The 'Let's Sign and Write' program, which provides pictures of signs being formed, has been used to make a sign graphic version of Harry's timetable. This is used to reinforce Harry's drawings of the day's activities. Harry easily interprets the sign graphics and has responded very positively to their use, signing more confidently and clearly.



Harry's Tuesday timetable: *calendar, drink, cooking, dinner, toothbrush, drama, drink, candle, home*. Harry's drawing and writing are shown above right; his 'Let's sign and write' reinforcement below it.



From a year ago, showing the changes in Harry's drawings.

A completed month on Harry's calendar—he has added his favourite photos.



Harry takes his evening timetable (covering *arrive home to sleep*) home with him from school. The blank space is for a spontaneous choice.



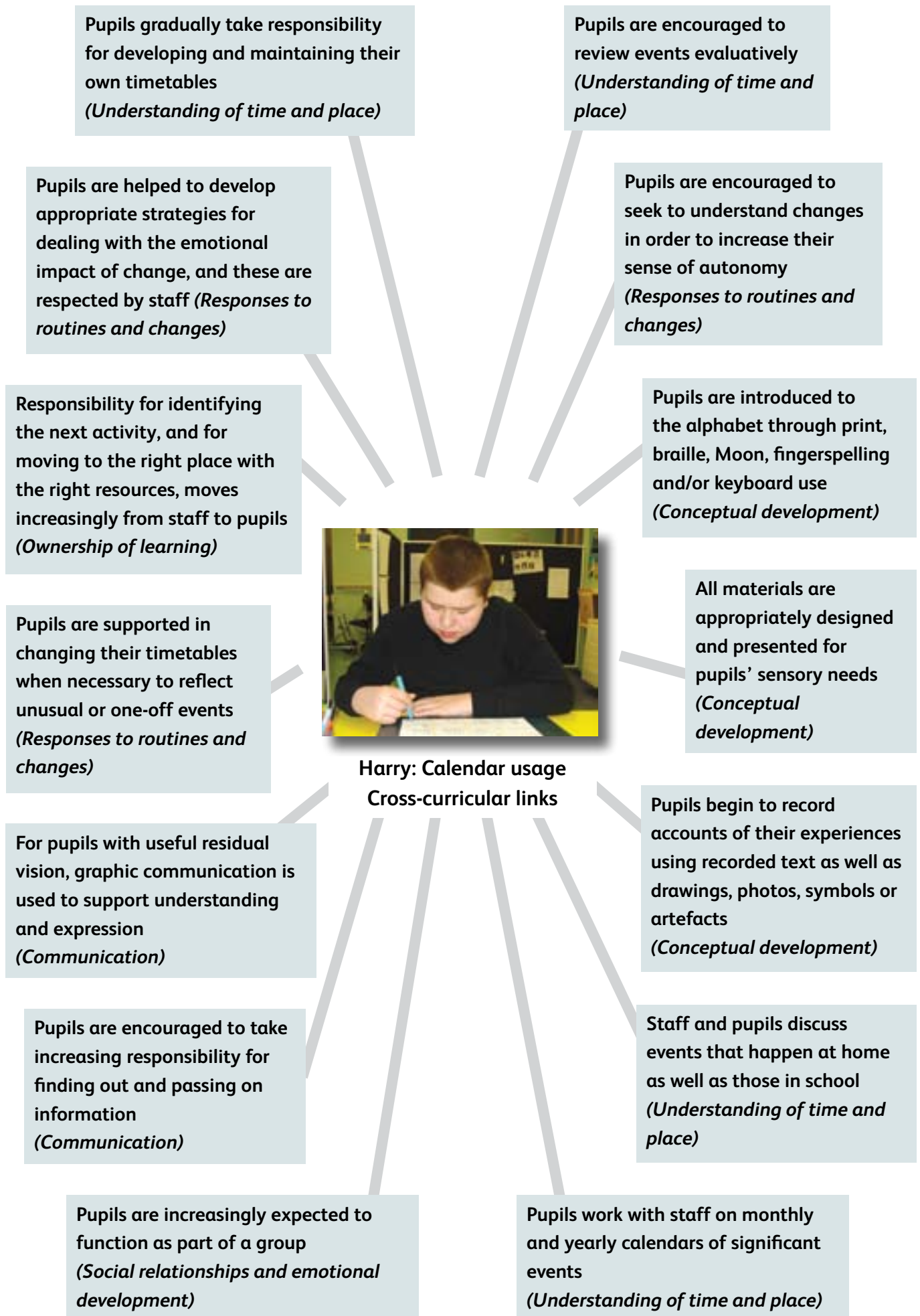
Harry's timetable work has developed in content as well as in form. Once his understanding was established in school, he began using a timetable to plan his evenings at home, where he had previously established very rigid routines. At first his evening timetable used photos, with Harry choosing in school whether he would play with his toys or his dog or watch TV after tea at home, and building his timetable accordingly. Later, one box was left blank for Harry to complete at home, so that he developed greater flexibility. This also gives a basis for conversation as Harry arrives at school each morning and returns the timetable. The photographic timetable has also been changed to a sign graphic version, to increase Harry's willingness to sign at home.

A couple of years ago Harry began to use a weekly calendar to extend his daily timetable work, with trips out, respite stays, musical workshops etc. marked on the relevant days. This has been extended to a fortnightly and now a monthly calendar. Harry quickly learned to use his calendar functionally as a reference point, anticipating changes to his routine. He also exerts greater choice and control by negotiating and recording when particular activities will happen. Over time, Harry's overview of forthcoming events will continue to extend to longer and longer periods, to help him understand how the jigsaw puzzle of days, weeks, months, years, terms, holidays, significant festivals and other occasions fit together.

Currently Harry has a copy of his monthly calendar in his working folder, and each day staff talk with him about the day and date and he crosses off the finished day. At the end of each month he chooses his favourite photos from the month's activities and adds these to the calendar page, so that he retains a diary record. He also has a copy of the calendar at home so that his family can mark key events, as he became unsettled by changes during the school holidays.

As well as helping him to anticipate events, Harry's timetable is used to explain unexpected changes to his routine. If a planned activity is cancelled, a staff member works with Harry to explain why it will not take place, draw a big cross over the timetable symbol and replace it with a photo, symbol or drawing of the substitute activity. This approach enables Harry to accept changes with relative confidence; a huge step forward for him.

Timetables and calendars are essential tools for Harry, reducing his reliance on routine and his anxiety about change, and giving him the knowledge he needs to anticipate and control events which affect him. Their use encourages his confidence, his self-assertiveness and his communication and underpins his understanding of his world. Harry's timetable and calendar work links to every curricular domain; some of the specific links are shown on next page.



The context of learning

The MSI Unit Curriculum addresses the contexts in which activities occur, as well as the objectives, strategies and expectations which they embody. At Phase 4, pupils are:

- using monthly and yearly calendars to supplement weekly timetables;
- developing greater autonomy in a range of physical and social environments,
- setting events in context in terms of time and place and recognising their own role;
- transferring and generalising learning

Timetabling

Harry's current timetable is shown below:

Day/ time	Monday	Tuesday	Wednesday	Thursday	Friday
9.00	calendar	register + calendar	register + calendar	register + calendar	register + calendar
10.00	community visit	library books	semi-structured play	question box	coffee shop inclusion with main school
10.30		snack	snack	snack	snack
11.00		food tech	school library	circle time	science
12.00	lunch	lunch	lunch inclusion at school for HI pupils	lunch	lunch
12.45	leisure	leisure		leisure	leisure
1.30	art	drama	ICT	bike/mobility	swimming
2.30	snack	snack	snack	snack	snack
2.45	review day	review day	review day	review day	review day
3.00	collective worship	collective worship	collective worship	collective worship	collective worship

Harry works 1:1 for his Thursday and Friday calendar sessions, but his other activities are all in pairs or small groups. When he works in a pair the staff ratio is 1:2; in group work it may be 2:3 or 2:4, usually with both staff working with the whole group.

His learning activities vary from early academic work and formal recording (for example, register and calendar) through to lightly supervised sessions such as semi-structured play, where the focus is on co-operation between peers (*Social relationships and emotional development*). The Thursday question box session takes this a step further: three pupils including Harry are given a box containing some materials and expected to work out what the materials are for. Every opportunity is taken to present minor changes to Harry as non-threatening, everyday and manageable. His class register, for example, takes the form of a tally chart, marking who is present; the names on the chart are written in a different order each week (*Responses to routines and changes*).

Harry's pace of learning is slow and his visual loss is progressive. With these factors and his age in mind, his programme is increasingly functional, geared towards life skills and the situations he will encounter in his post-school years. His lunchtime inclusion at the neighbouring school for hearing-impaired pupils, for example, is preceded by making his own packed lunch. When shopping, he chooses beforehand what he will buy, and makes a list with staff. He pays for items independently, knowing that money is needed although he does not understand coin values, and he recognises that a bag, a receipt and sometimes change signal the end of the transaction (*Conceptual development*).

Harry's use of a monthly calendar is detailed above. Other pupils in his group also use yearly calendars, identifying annual events such as birthdays and exploring the patterns of school terms and holidays (*Understanding of time and place*).

Autonomy and learning environments

Harry learns in a range of physical and social environments. He uses specialist teaching rooms within Victoria whenever appropriate (for food tech, science, library, mobility, coffee shop, swimming); he visits the neighbouring school for hearing-impaired pupils once a week for lunch and breaktime; he regularly uses a range of community facilities – shops, cafes, libraries, the post office – and travels on public transport using his bus pass (*Understanding of time and place; Orientation, movement and mobility*). Harry's community trips and inclusion with

hearing-impaired pupils and with main school pupils at Victoria provide differing social environments in which he can see different social codes in operation (*Social relationships and emotional development*). Harry is an astute observer, although often a reluctant participant, and his facial expression often shows fascination with these new settings.

At Phase 4, pupils are encouraged to identify the environmental adaptations or help that they need because of their sensory impairments (*Ownership of learning*). Harry's visual function is greatly affected by lighting levels, and he has learned to look for light switches and turn lights on when necessary. He also has significant visual field losses, especially in his lower field. Together with his poor balance, these affect his mobility, especially in busy situations where he must judge the movements of others coming towards him. In such settings (for example, in the corridor at home time) he uses a long cane, which has greatly increased his confidence (*Sensory responses*). In unfamiliar environments he takes the hand of a member of staff, not as a matter of course but when he judges that he needs support.

Harry's base room is set up to encourage independence, responsibility and peer interaction. Each pupil has their own set of drawers (one for each day) containing the equipment they need, and their own workspace (*Ownership of learning*). Harry often works in a group of three pupils and he is generally the least confident in this group. To counter this, some of his sessions (circle time, drama) include pupils less able and less sociable than he is, and he is encouraged to lead sections of the session and to help his peers. He still needs considerable support to do this, but is making progress. Within his usual group, with encouragement, he is increasingly willing to assert himself – for example, when the group are reviewing the day, they each say which activity they have most enjoyed. Harry used always to copy his friend Ben, but has recently become willing to choose a different activity, and is clearly pleased with himself for doing so (*Social relationships and emotional development*).

Harry and his peers are encouraged to interact directly with adults in a range of roles (shop staff, school catering staff, bus drivers etc.) rather than relying on mediation by keyworkers (*Communication*). Currently Harry's communication in such settings is usually non-verbal (offering a bus pass; pointing to the food he wants). Other pupils in his group are learning to ask a staff member to act as a sign interpreter when needed.

Contextual understanding

Harry's understanding of context and his relation to others is supported throughout his time in school. Timetables and calendars support his understanding of past and future. Photographs, symbols, pictures and artefacts are used to record and review events (*Conceptual development*). At Phase 4, discussion of pupils' reactions becomes more detailed, investigating, for example, why they liked the bus journey more than the market stalls (*Communication*). Harry is encouraged to be aware of his feelings and those of others, both adults and peers. The different settings in which pupils spend their lives are explicitly linked: Harry contributes to his home-school diary, for example – staff sign to him what they have written and then hand him the book to record his favourite activity through drawing (*Understanding of time and place*).

Books, stories and drama sessions are also used to explore context and relationships (*Social relationships and emotional development*). Harry's drama group of four pupils, for example, go on an imaginary bus journey each week. The outer shell of the session – the bus trip – follows the same pattern each time: one pupil is the bus driver and the others buy tickets; the driver decides the turnings, bumps, tunnels and other features of the route. The pupils take a suitcase with them, which contains clues to their destination – sunglasses, shells and a bucket and spade for the beach, perhaps. The destination is different each week. Often the pupils do not reach the destination at all, because the bus breaks down, or someone traps their leg in the door, or a lost cat is found wandering ... Harry enjoys drama and likes to take the part of the bus driver. He watches with interest when new roles are created, and may volunteer to act them on a second or subsequent performance. In this way he experiences variety in a safe environment, where change is interesting and empowering, not intimidating. He also has the chance to try different roles and ways of relating to others, again in a safe, non-threatening context (*Responses to routines and changes*).

Generalisation

Although Harry presents as proficient within his familiar school environment, his competence relies on his expert knowledge of routines and his trust in familiar staff. Without these props he is rapidly lost and the limitations imposed by his profound sensory impairments become clear. He does not gain enough information about different settings to compare their similarities and differences and so does not recognise when it is appropriate to use familiar skills in new contexts. His limited confidence compounds this problem. To address these difficulties, Harry is specifically taught to transfer skills, by learning to use them in new settings and by discussion and experience of the similarities which make their use appropriate (*Responses to routines and changes*).

For example: with two other pupils, Harry visits the local library monthly, travelling by public bus; he shops twice a month at the local shopping centre, and he uses public transport for one-off visits to a range of venues. The common elements of the trips (for example, using his bus pass for each bus journey) are stressed in planning and review, and trips may be selected solely to encourage pupils' understanding of generalisation – for instance, visiting several different public libraries to emphasise that the process of borrowing books is the same in each one.

Harry's cumulative understanding from these trips enables him to make choices on a relatively major scale. He may, for example, have the choice of whether the group shopping visit is to the supermarket or the shopping centre, or choose which public library to visit on the bus (*Ownership of learning*). He now understands the concept of a vote, when alongside other pupils he chooses which of two cafes to visit. Pupils' names are put into one of two columns depending on their choice, and Harry understands that the majority decision goes!

Assessment profiles

Using the Assessment Profiles

The Assessment Profiles consist of sets of typical achievements which suggest that the pupil has mastered the skills, concepts and global understanding associated with each Phase. The sets of achievements are not intended to be exhaustive. The Profiles are criterion-referenced assessments, linked to the MSI Unit Curriculum, not generic developmental measures.

The achievements for each Phase are categorised in the same domains as the Curriculum. They describe abilities rather than specific behaviours wherever possible, to try to avoid excluding any pupils with multi-sensory impairments (for example, blind pupils) and to put the emphasis on what pupils can do rather than what they can't. Abilities may be demonstrated in any way appropriate to the pupil's abilities, age and teaching programme. The 'Comments' section of the profile is used to record details of how the pupil has shown (or is working towards) each achievement.

The Profiles are designed to serve a range of purposes:

- to record pupils' progress over time, both in terms of new abilities and in the generalisation of current learning. Because the emphasis of the curriculum is on learning how to learn, many achievements describe aspects of this process (for example, processing and responding to sensory information) rather than subject-related knowledge. The Assessment Profiles cannot be viewed as an MSI-friendly version of the P Scales.
- to help staff reflect on pupils' global development – for example, identifying islands of strength or areas where pupil may require more intensive work over next few months. The curriculum content contains suggestions for how to plan or adapt activities to meet needs identified in this way.
- achievements may be used as targets in one or more teaching sessions, although it is likely that they will be re-written to make them specifically relevant to an individual pupil. For example, a Phase 3 achievement is

makes clear, informed choices from 3+ options (attends to all options; clearly indicates choice)

A first target related to this might be

takes photo or uses adult's finger to point to photo to indicate choice

moving on to three options once choices are consistently made clearly.

Because the Profiles are not exhaustive, pupils will need additional targets, especially when other impairments interact with the effects of MSI.

Completing the profile

Instructions for completing the Profiles are given at each Phase, and only summarised below.

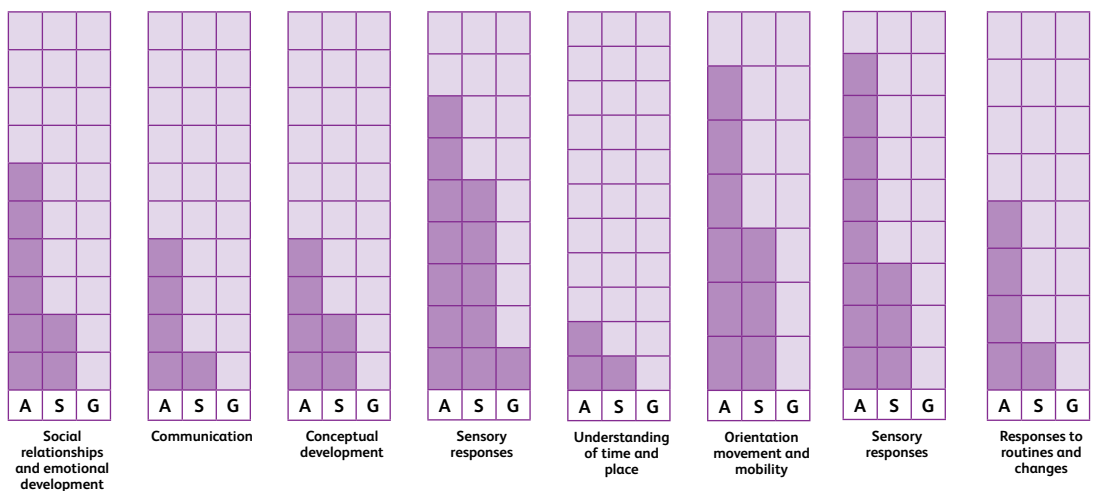
For each typical achievement, tick boxes are used to record the dates when:

aware	the pupil shows signs of being ready to learn this ability – for example, s/he is attentive although not yet active; s/he has relevant pre-knowledge; s/he has fleetingly used the ability on occasions
achieved in specific contexts	the pupil consistently uses this ability in some but not all of the situations in which it could be used
generalised	the pupil consistently uses this ability in all appropriate situations, although s/he may need prompting in unfamiliar settings or activities

The ‘Comments’ box is used to add examples of how the pupil shows the ability, any specific needs or constraints (for example, from physical disability) or any other significant information.

The Summary Sheet gives a picture of a pupil’s overall progress within a particular Phase. It is completed by totalling the number of items completed at each level for each section and marking off the appropriate number of boxes – for example, in Communication a pupil might have achieved 10 items at aware, 7 at achieved in specific contexts and 3 at generalised. When the pupil’s Profile is updated, progress is shown by using dates or different colours in updating the Summary Sheet. An example of a completed Summary Sheet is shown below:

A = aware S = achieved in specific contexts G = generalised



MSI Unit Curriculum: Pupil Profile

Phase 1

Name _____

Date of birth _____

Completing the profile

The MSI Unit Curriculum Profiles are designed to show progress by pupils with MSI, whatever their types and degrees of sensory impairments and additional disabilities. Pupils with different combinations of impairment may demonstrate a particular ability in very different ways. For this reason, the Profiles combine tick boxes so that progress can easily be quantified with space for description of a pupil's specific behaviours.

For each item, in each of the first three boxes put the date when:

aware	the pupil shows signs of being ready to learn this ability – for example, s/he is attentive although not yet active; s/he has relevant pre-knowledge; s/he has fleetingly used the ability on occasions
achieved in specific contexts	the pupil consistently uses this ability in some but not all of the situations in which it could be used
generalised	the pupil consistently uses this ability in all appropriate situations, although s/he may need prompting in unfamiliar settings or activities

In the 'Comments' box, add examples of how the pupil shows the ability, any specific needs or constraints (for example, from physical disability) or any other significant information.

The Summary Sheet gives a picture of a pupil's overall progress within a particular Phase. To complete the Summary Sheet, total the number of items completed at each level for each section and mark off the appropriate number of boxes – for example, in *Communication* a pupil might have achieved 5 items at 'aware', 2 at 'achieved in specific contexts' and 1 at 'generalised'. When the pupil's Profile is updated, progress is shown by using dates or different colours in updating the Summary Sheet.

Social relationships and emotional development

typical achievement	aware	achieved in specific contexts	generalised	comments
expresses emotions in response to external events (eg: pupil upset when refused an item they want)				
responds to trusted adult by calming, relaxing and/or becoming more engaged				
responds to inanimate source of security by calming or relaxing (eg: individual space in classroom, preferred object)				
differentiates between very familiar adults (eg: shows increased pleasure when favourite adult interacts with them)				
shows awareness of peers (eg: briefly stills to peer's characteristic sound, then ignores it)				

Communication

typical achievement	aware	achieved in specific contexts	generalised	comments
shows consistent preferences eg: prefers one spread to another; has favourite tune; has preferred toy				
uses intentional non-symbolic communication (eg: eye-pointing towards wanted object; pushing objects or people away to reject them)				
shows understanding of on-body signs for 'more'/'stop'/'finish' used within familiar routines				
differentiates between very familiar adults (eg: shows increased pleasure when favourite adult interacts with them)				
shows understanding of familiar symbols used in context (eg: keyworker's identifier; ORs for activities) by showing pleasure or rejection				

Conceptual development

typical achievement	aware	achieved in specific contexts	generalised	comments
responds to environmental changes which are accessible through residual senses; still greatly affected by hunger, fatigue etc.				
examines keyworker's face/hands/ other acceptable body areas using sight and/or touch				
with support (non-verbal prompts), explores items (maybe briefly) using repetitive strategies				
understands cause and effect in specific settings where effect rapidly and reliably follows cause				
knows function of 3+ familiar objects used in daily routines (eg: cup, spoon, standing frame)				

Sensory responses

typical achievement	aware	achieved in specific contexts	generalised	comments
attends at least briefly to stimuli deliberately and appropriately presented				
discriminates sensory properties (eg: shows consistent preferences for specific colours, textures or high/low frequencies of sounds)				
discriminates highly motivating stimuli from others in familiar quiet environments (eg: responds to keyworker's voice more than to other staff voices)				
shifts attention between adult and object with support				
identifies meaning of familiar motivating stimuli (eg: recognises own name or identifier / recognises keyworker by identifier, sight or perfume /wants to finish activity when smells dinner)				

Understanding of time and place

typical achievement	aware	achieved in specific contexts	generalised	comments
changes behaviour (eg: by alerting, pausing, moving or vocalising) after rhythmic activity begins)				
anticipates some steps within motivating, very familiar daily routines				
anticipates familiar activities from cues (real ORs, songs, scents and/ or action sequences) presented just before activity – eg: alerts towards part of room where activity happens				
shifts attention between adult and object with support				
identifies meaning of familiar motivating stimuli (eg: recognises own name or identifier / recognises keyworker by identifier, sight or perfume /wants to finish activity when smells dinner)				

Orientation, movement and mobility

typical achievement	aware	achieved in specific contexts	generalised	comments
responds to landmarks (eg: by looking or repeatedly touching) on very familiar routes eg: classroom to bathroom; bus to classroom				
consistently finds preferred item, area or surface in individual base area within classroom				
orientates self in very familiar small environments (eg: individual base area within classroom) – shows awareness of particular parts and/or boundaries of environment				
willing briefly to explore classroom environment (floor surface, furniture, doors etc.) through touch and/or other senses with support from keyworker				

Ownership of learning

typical achievement	aware	achieved in specific contexts	generalised	comments
without prompting, gives signal (any signal) for keyworker to continue activity during pause in familiar routine				
consistent increase or decrease in activity in highly reactive environments (eg: resonance board, Little Room)				
acts intentionally on objects or physical environment (eg: kicking mobile to make sound)				
works co-operatively with keyworker on very familiar motivating activities (joint working to complete activity between them)				

Responses to routines and changes

typical achievement	aware	achieved in specific contexts	generalised	comments
participates in specific greetings routines or other daily routines with keyworker (keyworker structures interaction and repairs breakdowns)				
anticipates daily routine events from contextual cues eg: mouth movements when sees drink being made or hears water running				
tolerates change in single aspect of routine activity (eg: place or equipment used)				

Profile Summary Sheet: Phase 1

Name _____

Date/s _____

A	S	G							

Social relationships and emotional development

A	S	G							

Communication

A	S	G							

Conceptual development

A	S	G							

Sensory responses

A	S	G							

Understanding of time and place

A	S	G							

Orientation movement and mobility

A	S	G							

Sensory responses

A	S	G							

Responses to routines and changes

MSI Unit Curriculum: Pupil Profile

Phase 2

Name _____

Date of birth _____

Completing the profile

The MSI Unit Curriculum Profiles are designed to show progress by pupils with MSI, whatever their types and degrees of sensory impairments and additional disabilities. Pupils with different combinations of impairment may demonstrate a particular ability in very different ways. For this reason, the Profiles combine tick boxes so that progress can easily be quantified with space for description of a pupil's specific behaviours.

For each item, in each of the first three boxes put the date when:

aware	the pupil shows signs of being ready to learn this ability – for example, s/he is attentive although not yet active; s/he has relevant pre-knowledge; s/he has fleetingly used the ability on occasions
achieved in specific contexts	the pupil consistently uses this ability in some but not all of the situations in which it could be used
generalised	the pupil consistently uses this ability in all appropriate situations, although s/he may need prompting in unfamiliar settings or activities

In the 'Comments' box, add examples of how the pupil shows the ability, any specific needs or constraints (for example, from physical disability) or any other significant information.

The Summary Sheet gives a picture of a pupil's overall progress within a particular Phase. To complete the Summary Sheet, total the number of items completed at each level for each section and mark off the appropriate number of boxes – for example, in *Communication* a pupil might have achieved 5 items at 'aware', 2 at 'achieved in specific contexts' and 1 at 'generalised'. When the pupil's Profile is updated, progress is shown by using dates or different colours in updating the Summary Sheet.

Social relationships and emotional development

typical achievement	aware	achieved in specific contexts	generalised	comments
usually able to moderate emotional responses with support from trusted adult (eg: calming to adult's voice or touch)				
actively seeks available sources of security (person/place/object) when stressed				
rapidly identifies familiar adults from personal identifiers or other sensory cues				
looks for or otherwise anticipates adult reactions to pupil's own actions				
clearly aware of and responsive to adult responses (eg: praise, concern) – responses may be unconventional				
greeted familiar adults using nonsymbolic communication (eg: facial expression; taking hand)				
sustains interaction with familiar adult over several turns, using nonsymbolic utterances (vocalisations/movements/facial expressions) – adult may structure interaction and repair breakdowns				
recognises and responds differentially to different peers				
with support, interacts with peers as part of familiar structured activities (eg: passing object to peer when prompted during greetings session)				
participates intermittently with support in regular classroom greeting or worship rituals				

Communication

typical achievement	aware	achieved in specific contexts	generalised	comments
understands 25+ symbols (signs/ symbols/words/photos/ORs)				
uses 10+ known symbols expressively in familiar contexts				
makes clear, informed choice from 2 concrete, simultaneously available options (attends to both options; clearly indicates choice)				
expresses requests and refusals using consistent signals rather than behaviours such as grabbing, pushing or throwing				
responds expressively to daily timetable (eg: indicating that an activity is preferred using timetable symbol)				
intentionally acts to gain adult's attention				
takes initiative in actively communicating needs or preferences using non-verbal methods				

Conceptual development

typical achievement	aware	achieved in specific contexts	generalised	comments
within physical capabilities, uses a range of strategies to manipulate objects (strategies may be the same each time and/or highly repetitive)				
uses different body parts (eg: hands/feet/face/tongue) to explore objects and environment				
willingly uses a range of media and processes in art /DT /messy play / creative activities with support				
recognises and understands function of most familiar items used in daily activities				
notices and responds to changes in materials (eg: water added to flour)				
understands cause and effect; intentionally acts to produce specific effects; recognises 1:1 correspondence between cause and effect				
understands 1:1 correspondence in practical situations (eg: one sock for each foot)				
combines objects, not necessarily in conventional ways				

Sensory responses

typical achievement	aware	achieved in specific contexts	generalised	comments
range of interest (within which monitors environment through sight / hearing /smell /passive touch) extends consistently to 1m or more				
demonstrates sense of wonder (wholly attentive) towards environmental sensation (eg: piece of music/bubbles/ strong magnets)				
briefly tolerates less preferred sensory input with support (eg: sticky substances on hands)				
actively explores range of sounds or vibrations that can be made by instrument or other object				
moves in response to, but may not be in time with musical/visual/vibrational rhythm				
attends jointly to adult and object, or alternates attention appropriately, throughout routine activity				
integrates information from different senses during familiar activities				
recognises familiar sounds/sights/ other stimuli in context				
recognises very familiar sights/ sounds/other stimuli out of context				

Understanding of time and place

typical achievement	aware	achieved in specific contexts	generalised	comments
continues actions begun coactively with adult (immediate imitation)				
consistently anticipates steps in familiar sequences (eg: when making drink with support from adult)				
actively anticipates and/or reviews activities using timetable symbols (eg: takes symbol for preferred activity)				
understands and anticipates sequence of very familiar group activities (eg: snack time, collective worship)				
participates intermittently with support in drama or interactive story sessions				
knows functions of familiar areas within school				
responds consistently to range of environmental features (eg: entry to building; grass underfoot; sound of windchimes)				

Orientation, movement and mobility

typical achievement	aware	achieved in specific contexts	generalised	comments
within physical capabilities, explores and maps new environments in conjunction with familiar adult				
uses appropriate mobility strategies on familiar routes with support from staff (eg: trailing, visual scanning, recognising landmarks)				
uses mobility aids if appropriate (eg: hoople, rolator, electric wheelchair) with constant guidance from adult)				
tolerates and co-operates in using adapted sighted guide (walking or wheelchair) when needed; may not be attentive to surroundings				
uses sensory input (sight/sound/passive touch/scent) to orientate self in familiar surroundings				
recognises familiar routes around school (eg: from bus to classroom and from classroom to bus)				
locates or avoids objects using sight, hearing, touch or vibration (eg: on resonance board)				

Ownership of learning

typical achievement	aware	achieved in specific contexts	generalised	comments
works co-operatively with adult in most familiar activities				
takes turns with adult in familiar motivating activities				
completes some very familiar taught activities with occasional prompts but no extended support				
uses trial and error to solve problems; persists for several attempts but may not adapt strategies used				
passively co-operates with self-care (eg: eating, dressing, toileting, cleaning teeth)				
moves independently in familiar settings where possible (eg: walking / crawling /rolling /using wheelchair)				

Responses to routines and changes

typical achievement	aware	achieved in specific contexts	generalised	comments
willing to work occasionally with skilled, less familiar adults				
anticipates broad range of individual daily routines (eg: steps within greetings, toileting, feeding)				
shows awareness of changes in routine (eg: by pausing or showing curiosity or distress)				
initiates motivating routines with familiar adults (eg: by beginning actions for familiar song)				
intermittently attentive to new environments and activities (eg: on outings) with support from familiar adult				
shows curiosity about new objects, experiences or environments with support from trusted adult				
engages intermittently with one-off celebrations or workshops with support from familiar adult				

Profile Summary Sheet: Phase 2

Name _____

Date/s _____

A	S	G

Social relationships and emotional development

A	S	G

Communication

A	S	G

Conceptual development

A	S	G

Sensory responses

A	S	G

Understanding of time and place

A	S	G

Orientation movement and mobility

A	S	G

Sensory responses

A	S	G

Responses to routines and changes

MSI Unit Curriculum: Pupil Profile

Phase 3

Name _____

Date of birth _____

Completing the profile

The MSI Unit Curriculum Profiles are designed to show progress by pupils with MSI, whatever their types and degrees of sensory impairments and additional disabilities. Pupils with different combinations of impairment may demonstrate a particular ability in very different ways. For this reason, the Profiles combine tick boxes so that progress can easily be quantified with space for description of a pupil's specific behaviours.

For each item, in each of the first three boxes put the date when:

aware	the pupil shows signs of being ready to learn this ability – for example, s/he is attentive although not yet active; s/he has relevant pre-knowledge; s/he has fleetingly used the ability on occasions
achieved in specific contexts	the pupil consistently uses this ability in some but not all of the situations in which it could be used
generalised	the pupil consistently uses this ability in all appropriate situations, although s/he may need prompting in unfamiliar settings or activities

In the 'Comments' box, add examples of how the pupil shows the ability, any specific needs or constraints (for example, from physical disability) or any other significant information.

The Summary Sheet gives a picture of a pupil's overall progress within a particular Phase. To complete the Summary Sheet, total the number of items completed at each level for each section and mark off the appropriate number of boxes – for example, in *Communication* a pupil might have achieved 5 items at 'aware', 2 at 'achieved in specific contexts' and 1 at 'generalised'. When the pupil's Profile is updated, progress is shown by using dates or different colours in updating the Summary Sheet.

Social relationships and emotional development

typical achievement	aware	achieved in specific contexts	generalised	comments
expresses range of emotions clearly without severe aggression, self-harm or withdrawal				
shows awareness of others' emotions by changing behaviour towards familiar others who are obviously upset, hurt or unwell				
recognises own belongings (eg: cup, coat, school bag, equipment tray)				
recognises similarities between own body and another person's (eg: touches own hair to copy another person touching theirs)				
uses physical contact and personal space appropriately with familiar others				
sustains extended interaction with an adult using symbolic and nonsymbolic communication – adult may structure interaction and repair breakdowns				
initiates interactions with peers (eg: greeting peer or sharing toy – not just removing wanted objects from peers)				
takes turns with at least one peer without constant support				
participates in small groups without constant 1:1 support				
independently participates in regular classroom greeting or worship rituals (eg: anticipating stages; joining in; making choices)				

Communication

typical achievement	aware	achieved in specific contexts	generalised	comments
understands 70+ symbols (signs/symbols/words/photos/ORs)				
consistently uses 25+ known symbols (signs/symbols/words/photos/ORs) expressively				
combines 2+ symbols to express ideas (distinct symbols, not rote-learned phrases)				
makes clear, informed choices from 3+ options (signs/symbols/words/photos/ORs) – attends to all options; clearly indicates choice				
checks s/he has partner's attention before continuing to communicate				
maintains same topic of conversation over several turns when communicating with trusted adult (verbal and/or non-verbal communication)				
uses several different communicative functions (eg: requesting, rejecting, greeting, drawing attention to object or event, giving information, directing), expressed verbally and/or non-verbally				
helps repair breakdowns in communication with support (eg: repeats utterance on request if adult has not heard/understood)				
joins in with familiar verbal sequences (eg: repetitive chant in familiar story, signs for familiar song)				
responds to simple stories; anticipates key points and joins in or answers simple questions about story				

Conceptual development

typical achievement	aware	achieved in specific contexts	generalised	comments
sorts and matches confidently in familiar activities (eg: laying table for snack time)				
understands word/sign/symbol for 'different' in functional contexts (eg: choosing a different computer program)				
understands word/sign/symbol for 'same' in functional contexts (eg: find another cup the same as this one)				
recognises and uses quantities to at least 3 in functional contexts (eg: fetches 3 cups for self and two peers as part of daily routine)				
in familiar activities chooses correct components (limited choice) and makes whole object (eg: place setting)				
efficiently works out what new objects do through trial and error; adapts actions on basis of earlier results				
anticipates changes in the properties of some materials in familiar activities (eg: cooking food or adding water to dry sand)				
actively shares books or spoken recordings with an adult – sustains interest; responds when adult draws attention to specific item; indicates item of interest				
makes marks on paper or records in another way; attaches meaning to finished product and identifies work as his/her own				
makes use of print/Moon/Braille/ another formal recording system (eg: Writing With Symbols or use of a voice recorder) in functional settings				

Sensory responses

typical achievement	aware	achieved in specific contexts	generalised	comments
range of interest (within which monitors environment through sight / hearing /smell /passive touch) extends to 3m or more				
notices new stimuli and seeks further information				
consistently recognises familiar sights/sounds/other stimuli in any context				
understands implications of familiar sensory information				
shows awareness of variable environmental factors (eg: looking to see whether lights are switched on; commenting on background noise)				
produces sounds or vibrations using voice or instrument on request				
shifts attention appropriately between different people in small group (may be slow)				
aware of other group members' part in activity (eg: others singing or painting; other roles in drama)				
searches successfully for items using sight/touch/verbal directions				

Understanding of time and place

typical achievement	aware	achieved in specific contexts	generalised	comments
can sequence day's main activities on daily timetable				
actively anticipates and/or reviews main weekly activities using calendar (eg: moves 'trike' symbol from afternoon to morning because enjoys trike-riding)				
actively anticipates and/or reviews weekends and school holidays				
actively responds to representations of familiar past and future events (eg: books about specific activities)				
refers to familiar people not present (eg: finds photo of swimming teacher when sees swimming symbol on timetable)				
interested in what is being created (eg: in art, drama, music, food tech.) – aware of product as well as process				
aware of local community facilities (eg: shops, park); actively attends to and participates in local outings				
understands that items are bought from shops using money				
responds appropriately to different weather conditions (eg: accepts/ rejects coat, umbrella etc. if offered)				
anticipates key elements of birthday celebrations (cards/presents, cake and candles, 'Happy Birthday')				

Orientation, movement and mobility

typical achievement	aware	achieved in specific contexts	generalised	comments
within physical capabilities, moves confidently and safely in familiar open spaces				
on familiar routes, chooses and uses appropriate safe mobility strategies for sensory capabilities (eg: trailing, visual scanning, recognising landmarks)				
uses any appropriate mobility aids with supervision but not constant support (eg: long cane/hoop/rolator/ powered wheelchair)				
uses adapted sighted guide (walking or wheelchair) competently when needed, maintaining attention to surroundings				
knows routes to familiar areas of school (eg: rooms used for different teaching sessions)				
willingly moves outdoors on range of surfaces with support				
within physical capabilities, systematically explores and maps new areas/routes with reassurance from familiar adult				

Ownership of learning

typical achievement	aware	achieved in specific contexts	generalised	comments
recognises and is pleased with own achievements				
spontaneously seeks leisure activity (not highly repetitive behaviour) if left alone				
completes familiar activities independently when possible; seeks help appropriately				
shows confidence that s/he can affect events by communicating with staff				
actively assists with self-care (eg: eating, dressing, toileting, cleaning teeth) to best of ability				
prepares drink and/or snack with minimal support or gives appropriate directions to another person				
uses appropriate forms of technology creatively without constant support (eg: painting on touch screen, playing electronic keyboard)				
within physical capabilities, imitates actions with short gap in space or time from model				
uses photos, symbols or objects as prompts for steps in activity sequence (eg: in making drink) – independently seeks next photo/symbol/object at end of each step				
purposefully attempts to operate familiar technology (eg: computer, microwave, CD player)				

Responses to routines and changes

typical achievement	aware	achieved in specific contexts	generalised	comments
continues simple pattern (eg: repeated rhythm of drumbeat)				
transfers familiar skills to new situation with support				
continues with next steps in a sequence if adult delays or makes deliberate error				
recognises changes in routine and accepts single changes without difficulty if given appropriate explanation (eg: the swimming pool is broken so swimming is cancelled)				
tolerates two changes in routine with appropriate support and explanation				
attempts to solve simple problems with one-step solutions (eg: fetches missing item of equipment in food technology session)				
actively attends to one-off celebrations or festivals such as school carol service or visiting musicians with familiar adult (eg: participation by vocalising or moving in response to sound or spectacle)				
interested and curious in new situations (eg: on trips out) provided appropriate support is given and the setting is not over-stimulating				

Profile Summary Sheet: Phase 3

Name _____

Date/s _____

A	S	G

Social relationships and emotional development

A	S	G

Communication

A	S	G

Conceptual development

A	S	G

Sensory responses

A	S	G

Understanding of time and place

A	S	G

Orientation movement and mobility

A	S	G

Sensory responses

A	S	G

Responses to routines and changes

MSI Unit Curriculum: Pupil Profile

Phase 4

Name _____

Date of birth _____

Completing the profile

The MSI Unit Curriculum Profiles are designed to show progress by pupils with MSI, whatever their types and degrees of sensory impairments and additional disabilities. Pupils with different combinations of impairment may demonstrate a particular ability in very different ways. For this reason, the Profiles combine tick boxes so that progress can easily be quantified with space for description of a pupil's specific behaviours.

For each item, in each of the first three boxes put the date when:

aware	the pupil shows signs of being ready to learn this ability – for example, s/he is attentive although not yet active; s/he has relevant pre-knowledge; s/he has fleetingly used the ability on occasions
achieved in specific contexts	the pupil consistently uses this ability in some but not all of the situations in which it could be used
generalised	the pupil consistently uses this ability in all appropriate situations, although s/he may need prompting in unfamiliar settings or activities

In the 'Comments' box, add examples of how the pupil shows the ability, any specific needs or constraints (for example, from physical disability) or any other significant information.

The Summary Sheet gives a picture of a pupil's overall progress within a particular Phase. To complete the Summary Sheet, total the number of items completed at each level for each section and mark off the appropriate number of boxes – for example, in *Communication* a pupil might have achieved 5 items at 'aware', 2 at 'achieved in specific contexts' and 1 at 'generalised'. When the pupil's Profile is updated, progress is shown by using dates or different colours in updating the Summary Sheet.

Social relationships and emotional development

typical achievement	aware	achieved in specific contexts	generalised	comments
talks about feelings and emotions (and events giving rise to strong emotions) with familiar adult				
uses taught strategies to deal with frustration and other sources of stress (eg: negotiating; taking short break from activity; explaining feelings)				
aware of safety and danger (eg: on roads; stranger danger; inappropriate touch; using equipment safely)				
has a sense of right and wrong, and an awareness of behaviour which may hurt or upset others				
chooses own leisure activities using resources available in classroom				
uses physical contact and personal space appropriately, differentiating between familiar and unfamiliar adults and peers				
behaves appropriately towards familiar others eg: offering comfort when upset; not being over-directive				
works as part of group, taking turns, sharing, listening to others				
recognises and responds to the achievements of others				
sustains extended interaction with peers				
maintains independent co-operative play with peers				
initiates, maintains and extends role play with others				
understand rules of simple games (eg: skittles, simple board games, catch) and can play them with support				

Communication

typical achievement	aware	achieved in specific contexts	generalised	comments
habitually strings 3+ signs, symbols or words together in communication				
follows requests with 4+ key elements				
communicates fluently with familiar others, using combination of verbal and non-verbal means.				
holds extended conversation with familiar adults without support				
introduces, maintains and changes topic appropriately in communication with others				
attempts to repair breakdowns in communication (eg: by using different words to express same meaning)				
adjusts communication appropriately for different listeners (eg: differentiates between adult and				
participates in small group discussions with appropriate adult support (eg: identification of new speaker)				
uses language functions which require symbolic communication (eg: describing, questioning, commenting)				
makes free choices and communicates them clearly				
gives running commentary on own actions when problem-solving				
participates in shared humour				
asks and answers questions appropriately (eg: who, where, when, why)				
retells simple stories and answers questions about them				

Conceptual development

typical achievement	aware	achieved in specific contexts	generalised	comments
uses prior experience and logic in exploring new items				
discriminates and identifies properties of objects and materials (eg: sandpaper is flat and rough; sugar paper flat and smooth)				
makes estimates and checks whether s/he is right or wrong (eg: how many plates are needed for class group)				
makes comparisons (eg: bigger/smaller, longer/shorter, heavier/lighter, faster/slower)				
understands the concept of money and the relative value of individual coins				
understands and uses quantities to 10 in functional situations				
uses simple forms of data representation (eg: using stickers to tally how many people want orange juice and how many water)				
reads 20+ words without attached symbols				
recognises and gains information from social sight vocabulary (in school and/or community)				
uses contextual cues to help identify meaning of text				
represents letters of alphabet by fingerspelling/writing/using keyboard/braille or moon				
knows words are made up from letters				
records own name from memory and understands its use as signifier				
records 10+ words from memory (recognisably if not accurately) using writing or other means				
uses writing or proto-writing for range of purposes (eg: labelling picture, writing message, making shopping list)				

Sensory responses

typical achievement	aware	achieved in specific contexts	generalised	comments
consistently seeks information appropriately from others or the environment				
understands the implications of sensory information, generalising knowledge from other contexts if necessary				
understands meaning of familiar sights/sounds/other stimuli out of context				
within limits of sensory abilities, discriminates relevant from irrelevant stimuli (eg: looks up when door opens, identifies child and staff member entering, then immediately returns to activity)				
acts to change the physical environment when necessary (eg: switching on lights or asking adult to do so)				
asks trusted people to change behaviour if necessary (eg: to move into the light or speak more slowly)				
uses appropriate aids competently				
knows how to check and maintain any hearing and/or visual aids, asking an adult to help if necessary				

Understanding of time and place

typical achievement	aware	achieved in specific contexts	generalised	comments
knows appropriate responses to weather conditions (eg: wearing appropriate clothing, needing sunscreen)				
uses appropriate strategies to complete specific tasks within set time limit (eg: collecting coat and bag before home time)				
sets events in time context (eg: last week, tomorrow) using timetables as source of information				
completes and uses daily and weekly timetables independently				
completes monthly and yearly calendars with support, accessing sources of information (eg: looking in class diary for forthcoming events)				
knows pattern of year (eg: months/ festivals/ holidays/ weather conditions)				
can match key times drawn on clockface to time on classroom clock (eg: 12.00 – lunchtime)				
recognises wider relevance of key times (eg: shops open and shut at specific times)				
understands similarities and differences between forms of transport (eg: public buses and trains stop at set points only; cars and minibuses need parking spaces)				
relates planning of outing to outing itself (eg: uses shopping list appropriately)				
makes representations of past events and outings (eg: draws/ collects souvenirs/ prints photos) and discusses these with an adult				
knows about range of community facilities and their use (eg: shops, public library, café)				
with support identifies and discusses aspects of own and other cultures (eg: festivals, clothing, food)				

Orientation, movement and mobility

typical achievement	aware	achieved in specific contexts	generalised	comments
moves independently in unfamiliar settings; if necessary, asks appropriately for help				
uses appropriate formal mobility techniques, adapted if necessary				
travels short familiar outdoor routes, recognising landmarks and travelling independently if possible; if not, asking appropriately for help				
understands the use of landmarks in route planning				
understands that landmarks are followed in reverse order on the return journey				
systematically explores and maps new environments without assistance				
follows and helps to produce visual or tactile maps or other means of representing school environment				
with support makes and uses simple maps of key community areas (eg: garden centre grounds; key shops in shopping mall) – uses these to plan and review journeys				

Ownership of learning

typical achievement	aware	achieved in specific contexts	generalised	comments
shows awareness of safety and danger in familiar settings				
generates own prompts or helps adult to do so (eg: operates step-by-step switch for adult to record list of landmarks on mobility route)				
uses familiar tools independently or directs another person to use them (eg: in food technology, art and design)				
plans and completes product, asking for support only when necessary (eg: making a birthday card)				
discusses completed activities evaluatively with adult – what s/he liked best, what went as planned etc.				
explains own work to adult (eg: talks about his or her painting or model)				
is independent in basic self-care routines, or directs adult with help needed				
leads familiar small group sessions with support from adult (eg: regular classroom greeting or worship ritual)				
with support uses money in functional situations				
understands when and how to ask for help from adult, and indicates what help is needed				

Responses to routines and changes

typical achievement	aware	achieved in specific contexts	generalised	comments
anticipates and discusses novel situations with adult with words/ pictures/sounds/objects used to represent new experience				
can talk about his or her responses to changes and with support work out strategies to help deal with these.				
generates or changes own routines to suit own needs or changed circumstances (eg: deciding where to keep new item of equipment)				
seeks support appropriately in strange situations				
identifies when familiar skills can appropriately be used in new context				
attempts to solve novel problems or seeks support appropriately				
with support names and discusses similarities and differences between objects, people and events				
recognises pattern in a range of contexts (eg. day/night; 5 school days/2 weekend days; keyboard layouts)				
continues patterns with two elements eg: double beat on drum, single beat on chime bar				

Glossary

Many technical terms are used in the Curriculum. In some cases, terms may be understood differently by different professionals. The glossary below gives the meanings used in the MSI Unit Curriculum.

acoustic/auditory environment the context in which a pupil uses hearing, including reverberation (echo) and background noise.

active (haptic) touch movement (often of a hand or foot) resulting in contact with a person, object or surface.

agency acting deliberately; knowing what you are doing.

attention focusing awareness on a particular stimulus.

breakdown in communication failure to exchange a communicative message. The breakdown may be verbal or non-verbal – not understanding what has been signed, for example, or not recognising what is being looked at.

burst/pause pattern intrinsic rhythm of many developmentally early activities, in which activity (burst) is followed by less or no activity (pause); this pattern is repeated again and again.

calendar/timetable work using a calendar or timetable to plan, anticipate and/or review a period of time, from a minute to a year or more. Most usually, to overview part or all of the current day. The calendar or timetable may use objects, shapes, symbols, pictures, text or other modes.

close senses senses providing information only about events close to a person's body, ie: active (haptic) touch, taste, temperature, pain and the movement and balance senses. Smell provides some information about more distant events, as does passive touch.

coactive movement staff member and pupil moving together in an activity, the two acting as one person.

communication mode *how* communication occurs – for example, speech, signing, symbols, photos, non-verbal behaviours.

comprehension in terms of sensory function: understanding the implications of sensory information (eg: anticipating an outing from watching packed lunches being put into a coolbag).

contextual cue naturally-occurring sight, sound or other signifier used as cue (eg: sound of tap running when drink is made).

- co-operative play** pupils play together at the same activity with one or more peers or adults.
- co-operative working** pupil and staff member working together on the same activity but not always using exactly the same actions.
- cross-curricular activities** activities addressing more than one curriculum domain.
- cross-group working** activities involving pupils from more than one teaching group (not necessarily all the pupils from each group).
- cue** an object, photo, picture, symbol, movement, gesture, sign, sound, song, word, scent or other signifier used to identify an activity about to start. Several cues may be used together.
- discrimination** in terms of sensory function: knowing whether two pieces of sensory information are the same or different – for example, preferring certain types of music.
- distance senses** senses normally able to provide information about events happening beyond arms' reach, ie: sight, hearing and to a limited extent smell and passive touch.
- environment** the people, places, objects, activities and events which surround a pupil.
- expressive communication** the ways in which someone communicates to others.
- fluctuating sensory impairment** sensory impairment which varies in severity from day to day or hour to hour; information received through this sense is unreliable and the pupil will experience the world as unpredictable.
- functional context** setting in which skill, concept, symbol etc. is normally used (eg: a shop is a functional context in which to use money).
- functional sensory assessment** assessment of how pupils use their residual senses to gain, use and respond to information (rather than establishing the thresholds of sight, hearing or other senses).
- graphic communication** communication using pictures, symbols or photos.
- hoople** mobility aid for visually impaired pupils made by bending and taping a large plastic hoop to form a handle at one end; usually used in preparation for a long cane.

Intensive Interaction student-centred curricular approach developed by Nind and Hewett. Staff use a student's behaviour as the basis for communication, interpreting, reflecting and responding to the student's actions and giving him or her the lead role in the interaction.

intentional communication interaction intended to convey a particular message.

interaction any contact or communication between two or more people or between a person and the physical environment. It need not be intentional.

joint attention sharing a focus of attention with another person by attending simultaneously to a person and an object or event.

keyworker member of staff working closely with a specific pupil and involved in the planning, delivery and evaluation of their programme. Pupils may have more than one keyworker, and a staff member may be keyworker for more than one pupil.

kinaesthetic/proprioceptive using sensory receptors in joints and muscles which give information about position, orientation and movement.

landmark a recognisable key point on a route. Landmarks may be visual, tactile, auditory and/or olfactory, but to be useful they must be available every time the route is travelled.

Little Room a particular kind of very small environment, pioneered by Lilli Nielsen, built from textured wooden panels to which small objects can be attached.

mapping the environment developing an understanding of how an area fits together, in terms of walls or other boundaries, entrances and exits, floor/ground and wall surfaces and other features such as furniture or plants. Pupils with useful sight are likely to develop a 3-d spatial awareness, whilst profoundly visually impaired pupils are likely to develop a sequential awareness of what is next to what.

noise/sound sound is what you want to listen to; noise is other auditory input which gets in the way. The terms are also used in other contexts – for example, behavioural noise: extraneous behaviours which make it hard to identify how and what a pupil responds to.

non-symbolic communication intentional communication which does not use symbols – ie: which does not use actions, sounds or graphics to represent meanings. Pointing or taking another person to something wanted are examples. Also known as presymbolic, non-verbal or preverbal communication.

non-verbal communication see **non-symbolic communication** above.

non-verbal prompts prompts which do not use language or symbols
(eg: pointing; touching a pupil's hand with the next object needed).

object of reference (OR) an object standing for an activity, person, place or thing. Initially an object used in the activity would form the OR for the activity; later, other objects are used specifically for the purpose of communication. Later still, partial or miniaturised objects may be used.

orientation knowing where you are and how to get to where you want to go.

parallel play pupils play alongside each other or by an adult, aware of the other's activity but not playing together.

passive touch sensations received on the skin, for example from the draught from an open door (also called cutaneous touch).

personal identifier a means of identifying a specific person – often an object worn by the person, such as a bracelet; sometimes a personal attribute such as a man's beard. An identifier must be unique, unchanging and constantly available to the pupil.

physical environment the places and objects surrounding a pupil.

physical prompt a prompt which involves touching the pupil.

pre-intentional actions actions which are not undertaken to fulfil a specific purpose, carried out by someone who does not yet understand the concept of purpose.

pre-intentional communication actions which others can interpret as holding a communicative message but which do not carry that intention. For example, a pupil may breathe more rapidly and begin to cry, and an adult may interpret this in context as 'I'm hungry'.

prompt a brief intervention from a staff member to help a pupil begin an activity or move on to its next stage.

prompt-dependency reliance on prompts to complete a task, usually because of difficulty remembering the stages in order and/or because of a lack of confidence or a wish to confirm that another person is present.

range of interest range within which a pupil monitors the environment through sight, hearing, smell and/or passive touch. It usually indicates the range within which pupils feel able to anticipate and respond to changes, rather than the limits of their sensory function.

reactive environment an environment which is responsive to the pupil, feeding back the effects of the pupil's and others' actions.

reactive working pupil and staff member work alongside each other, engaged on the same activity but working separately.

receptive communication the ways in which someone understands communication from others.

recognition in terms of sensory function: identifying the meaning of sensory information (eg: knowing one's name).

reflexive responses involuntary responses to specific stimuli. Some reflex responses are outgrown in infancy by typically developing children; others, such as blinking at a suddenly approaching object, persist.

repair breakdown in communication act to mend communication that has failed in some way – for example, repeating what has been said if the listener hasn't understood the first time.

repetitive behaviour an action or series of actions repeated many times. A pupil may use the same action/s across many different situations.

residual senses the sensory capacity of someone with a sensory impairment – someone with a visual impairment, for example, may have limited sight, good hearing and good close senses; these in combination are the person's residual senses.

resonance board a plywood board raised on small plinths at the edges. Sounds and movements, especially vibrations, are intensified to someone who is touching the board. Resonance boards are often used to help pupils to become more aware of their own movements or in work on locating objects.

routine breakdown failure to complete a (usually familiar) routine, for example because a needed piece of equipment is missing or because one person does not take their turn. The failure may be accidental or a deliberate ploy to trigger a response from a pupil.

routine mismatch delaying or altering the next step in a well-known routine, usually to stimulate pupils to respond by correcting or continuing the routine themselves or in some other way.

routines activities performed in the same way and the same order each time. Routines help pupils to understand and anticipate what happens to them. Some routines are based on care activities such as feeding; others are specifically developed to build relationships with others or teach new skills and concepts.

- sensory function** how a pupil uses their residual senses, including any sensory preferences, the factors helping or impeding sensory use and the pupil's understanding and use of the information received.
- signal** an action or object which communicates a message.
- signifier** something which stands for something else (eg: the spoken word 'drink').
- state-driven** a very early stage of development at which the pupil acts primarily in response to internal stimuli, rather than responding to the external environment. Different states include sleeping, being drowsy and being awake and alert.
- structuring (interaction)** setting up and maintaining conditions which help the pupil to interact (eg: setting out the photos or symbols linked to an activity under discussion).
- support** intervention from a staff member to help a pupil begin, continue and/or complete an activity. The intervention may be verbal, visual and/or physical and it may be provided intermittently or continuously throughout an activity.
- symbol** an action, sound or graphic which represents a meaning – for example, a toy jug representing 'want a drink'; a photo representing 'Mum'; a symbol representing 'I need time out'; the spoken or written word 'democracy'.
- symbolic communication** intentional communication using symbols – ie: actions, sounds or graphics which represent specific meanings. Speech, signs and rebus symbols are examples. Also known as **verbal communication** (distinct from vocal communication, which means communication using voice).
- timetable/calendar work** using a calendar or timetable to plan, anticipate and/or review a period of time, from a minute to a year or more. Most usually, to overview part or all of the current day. The calendar or timetable may use objects, shapes, symbols, pictures, text or other modes.
- verbal prompts** prompts using symbolic communication.
- visual environment** the context in which a pupil uses sight, including lighting levels, colour contrast, visual 'clutter' and movement (eg: people walking past).

Teachers' notes and references

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