Science

Descriptor	Guidance
P1(i) Pupils encounter activities and experiences. They may be passive or resistant. They may show simple reflex responses, *for example, startling at sudden noises or movements*. Any participation is fully prompted.	
P1(ii) Pupils show emerging awareness of activities and experiences. They may have periods when they appear alert and ready to focus their attention on certain people, events, objects or parts of objects, *for example, looking towards flashes of light or turning towards loud sounds*. They may give intermittent reactions, *for example, sometimes withdrawing their hands from changes in temperature.*	
P2(i) Pupils begin to respond consistently to familiar people, events and objects. They react to new activities and experiences, *for example, discarding objects with unfamiliar textures*. They begin to show interest in people, events and objects, *for example, leaning forward to follow the scent of a crushed herb*. They accept and engage in coactive exploration, *for example, feeling materials in hand-over-hand partnerships with a member of staff.*	
P2(ii) Pupils begin to be proactive in their interactions. They communicate consistent preferences and affective responses, *for example, showing a consistent dislike for certain flavours or textures*. They recognise familiar people, events and objects, *for example, moving towards particular features of familiar environments*. They perform actions, often by trial and improvement, and they remember learned responses over short periods of time, *for example, rejecting*	

food items after recent experience of bitter flavours. They cooperate with shared exploration and supported participation, *for example, examining materials handed to them.*	
P3(i) Pupils begin to communicate intentionally. They seek attention through eye contact, gesture or action. They request events or activities, *for example, reaching out towards a sound making object*. They participate in shared activities with less support. They sustain concentration for short periods. They explore materials in increasingly complex ways, *for example, pressing hard objects into soft textures*. They observe the results of their own actions with interest, *for example, scrunching up paper and examining the product*. They remember learned responses over more extended periods, *for example, reaching out to touch a live animal with caution and sensitivity.*	
P3(ii) Pupils use emerging conventional communication. They greet known people and may initiate interactions and activities, *for example, switching on a favourite piece of equipment in the light and sound room*. They can remember learned responses over increasing periods of time and may anticipate known events, *for example, balls falling and bouncing on the floor*. They may respond to options and choices with actions or gestures, *for example, touching one substance rather than another*. They actively explore objects and events for more extended periods, *for example, feeling the textures of different parts of a plant*. They apply potential solutions systematically to problems, *for example, tipping a container in order to pour out its contents.*	
P4 Pupils explore objects and materials	‘Explore’ includes access through any sensory mode. Teachers

provided, changing some materials by physical means and observing the outcomes, for example, when mixing flour and water. Pupils communicate their awareness of changes in light, sound or movement. They imitate actions involving main body parts, for example, clapping or stamping. They make sounds using their own bodies, for example, tapping, singing or vocalising, and imitate or copy sounds. They cause movement by a pushing or pulling action.	should ensure they are assessing intended, not accidental, actions.
P5 Pupils take part in activities focused on the anticipation of and enquiry into specific environments, for example, finding a hamster under straw, or a CD or video in a pile. They match objects and materials in terms of single features or properties, for example, temperature or colour. They indicate the before and after of material changes. They try out a range of equipment in familiar and relevant situations, for example, initiating the activation of a range of light sources. They respond to simple scientific questions, for example, 'Show me the flower' 'Is this wet/dry?'	'Showing', 'demonstrating' 'trying out' 'responding' etc may be done by any means appropriate to the pupil's preferred mode of communication and physical abilities. For some pupils this may mean directing an adult undertaking the task.
P6 Pupils recognise distinctive features of objects, for example, the features of living thingsin their environment, and know where they belong, for example, feathers on a bird, leaves on a tree. They begin to make generalisations, connections and predictions from regular experience, for example, expecting that ice cream will melt, or making wheeled objects move faster by pushing on a smooth surface or releasing them down a slope. Pupils sort materials according to a single criterion when the contrast is obvious. They closely observe the changes that occur, for example, when materials are heated, cooled or mixed. Pupils identify some appliances that use electricity. They show they know some sources of sound and light, for example, remembering their	

location.	
P7 Pupils understand the scientific use of some simple vocabulary, such as before, after, bumpy, grow, eat, move and can communicate related ideas and observations using simple phrases, for example, which food to give which animal. Pupils can demonstrate simple properties of light, sound and movement, for example, bright, noisy/quiet, fast/slow. They make simple records of their findings, for example, by putting pictures of an activity in sequence. They begin to make suggestions for planning and evaluating their work, for example, responding to the question 'Was that right or wrong?'	'Showing', 'demonstrating' 'trying out' 'responding' etc may be done by any means appropriate to the pupil's preferred mode of communication and physical abilities. For some pupils this may mean directing an adult undertaking the task.
P8 Pupils show they have observed patterns or regular changes in features of objects, living things and events, for example, chrysalis/butterfly day/night. They make some contribution to planning and evaluation and to recording their findings. They identify a range of common materials and know about some of their properties. They sort materials using simple criteria and communicate their observations of materials in terms of these properties. Pupils make their own observations of changes of light, sound or movement that result from actions, for example, using a volume control or a dimmer switch and can describe the changes when questioned directly.	
Level 1 Scientific enquiry: Pupils describe or respond appropriately to simple features of objects, living things and events they observe, communicating their findings in simple ways [for example, talking about their work, through drawings,simple charts].	
Level 1 Life processes and living things: Pupils recognise and name external parts of the	

body [for example, head, arm] and of plants [for example, leaf, flower]. They communicate observations of a range of animals and plants in terms of features [for example, colour of coat, size of leaf]. They recognise and identify a range of common animals [for example, fly, goldfish, robin].	
Level 1 Materials and their properties: Pupils know about a range of properties [for example, texture, appearance] and communicate observations of materials in terms of these properties.	
Level 1 Physical processes: Pupils communicate observations of changes in light, sound and movement that result from actions [for example, switching on a simple electrical circuit, pushing and pulling objects]. They recognise that sound and light come from a variety of sources and name some of these.	