



## **SCIENCE**

### **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 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 'Explore' includes access through any sensory mode
- Teachers should ensure that 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 things in 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 that 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 that 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.

