



MATHEMATICS

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, grasping objects briefly when they are placed in their hand]
- They may give intermittent reactions [for example, sometimes showing surprise at the sudden presence or absence of an event or object].

P2 (i) Pupils begin to respond consistently to familiar people, events and objects

- They react to new activities and experiences [for example, becoming excited or alarmed when a routine is broken]
- They begin to show interest in people, events and objects [for example, tracking objects briefly across their field of awareness]
- They accept and engage in coactive exploration [for example, lifting objects briefly towards the face in shared investigations].

P2 (ii) Pupils begin to be proactive in their interactions

- They communicate consistent preferences and affective responses [for example, showing a desire to hold a favourite object]





- They recognise familiar people, events and objects [for example, looking towards their own lunch box when offered a selection]
- They perform actions, often by trial and improvement, and they remember learned responses over short periods of time [for example, repeating an action with a familiar item of equipment]
- They cooperate with shared exploration and supported participation [for example, handling and feeling the texture of objects passed 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, pushing an item of equipment towards a member of staff].
- They participate in shared activities with less support.
- They sustain concentration for short periods
- They explore materials in increasingly complex ways [for example, banging or rubbing objects together]
- They observe the results of their own actions with interest [for example, as they throw or drop objects on to different surfaces]
- They remember learned responses over more extended periods [for example, remembering how to activate a pop-up object from a previous lesson].

P3 (ii) Pupils use emerging conventional communication

- They greet known people and may initiate interactions and activities [for example, dropping objects to prompt interventions from adults]
- They can remember learned responses over increasing periods of time and may anticipate known events [for example, collecting coats and bags at the end of the school day]





- They may respond to options and choices with actions or gestures [for example, pointing to or giving one object rather than another]
- They actively explore objects and events for more extended periods [for example, manipulating objects in piles, groups or stacks]
- They apply potential solutions systematically to problems [for example, using items of equipment purposefully and appropriately].

Using and applying mathematics

P4 Pupils are aware of cause and effects in familiar mathematical activities [for example, knowing that in a role-play shop a coin can be exchanged for an item; hitting a mathematical shape on a concept keyboard to make it appear on the screen]

- Pupils show awareness of changes in shape, position or quantity [for example, grouping objects that have similar key features such as shape; creating very simple sequences of light or sound using switched equipment; recalling an object which has been placed out of sight]
- They anticipate, follow and join in familiar activities when given a contextual clue [for example, anticipating the next chorus or action in songs and rhymes; matching cakes to plates].

P5 Pupils sort or match objects or pictures by recognising similarities [for example, matching shoes or socks by placing next to one placed by an adult; find matching pairs from a collection of pictures; collecting objects given one criterion such as blue or big]

- They make sets that have the same small number of objects in each [for example, distributing sweets into containers so that there are one or two in each]
- They solve simple problems practically [for example, selecting appropriate containers for items of different sizes; checking there is a knife for every fork].





P6 Pupils sort objects and materials according to a given criteria [for example, sorting footballs into a net and table tennis balls into a box]

- They copy simple patterns or sequences [for example, copying a drumbeat; copying a simple pattern of repeated movements; copying a pattern of large and small cups].

P7 Pupils complete a range of classification activities using a given criterion [for example, sorting a pile of coins by size, colour or shape; sorting all the blue Wellington boots; sorting all the size 6 shoes]

- They identify when an object is different and does not belong to a given familiar category [for example, removing odd items from sets; collecting items into sorting boxes or drawers]
- They respond appropriately to key vocabulary and questions [for example, 'How many?'].

P8 Pupils talk about, recognise and copy simple repeating patterns and sequences [for example, recognising and describing simple repeating patterns on textiles or necklaces from different cultures; recognising and describing a pattern of socks on a line; joining in a pattern of hand claps; talking about and copying patterns such as beats in familiar music; shapes made by hand and feet in damp sand; sponge prints]

- Pupils use their developing mathematical understanding of counting up to ten to solve simple problems encountered in play, games or other work [for example, using tokens or marks to tally events or scoring in games; counting in the school environment; using ordinal words to describe positions and turns]
- Pupils make simple estimates [for example, estimating the number of cubes that will fit into a box or the number of strides across a room].

Number





P4 Pupils show an awareness of number activities and counting [for example copying some actions during number rhymes, songs and number games; following a sequence of pictures or numbers as indicated by a known person during number rhymes and songs].

P5 Pupils respond to and join in with familiar number rhymes, stories, songs and games [for example, using a series of actions during the singing of a familiar song; joining in by saying, signing or indicating at least one of the numbers in a familiar number rhyme]

- Pupils can indicate one or two [for example by using eye pointing, blinks, gestures or any other means to indicate one or two, as required]
- They demonstrate that they are aware of contrasting quantities [for example 'one' and 'lots' by making groups of one or lots of food items on plates].

P6 Pupils demonstrate an understanding of one-to-one correspondence in a range of contexts [for example: matching objects such as cups to saucers, straws to drink cartons].

- Pupils join in rote counting up to five [for example, saying or signing number names to 5 in counting activities]
- They count reliably to three, make sets of up to three objects and use numbers to three in familiar activities and games [for example, touching one, two, three items as an adult counts, counting toys or pictures, counting out sets of three, such as knife, fork and spoon]
- They demonstrate an understanding of the concept of 'more' [for example, indicating that more cups, counters, food items are required]. They join in with new number rhymes, songs, stories and games.

P7 Pupils join in rote counting to 10 [for example, saying or signing number names to 10 in counting activities]

- They can count at least 5 objects reliably [for example, candles on a cake, bricks in a tower]





- They recognise numerals from one to five and to understand that each represents a constant number or amount [for example, putting correct number of objects (one to five) into containers marked with the numeral; collecting the correct number of items up to five]
- Pupils demonstrate an understanding of 'less' [for example, indicating which bottle has less water in it]. In practical situations they respond to 'add one' to a number of objects [for example, responding to requests such as add one pencil to the pencils in the pot, add one sweet to the dish].

P8 Pupils join in with rote counting to beyond 10 [for example, they say or sign number names in counting activities]

- They continue to rote count onwards from a given small number [for example, continuing the rote count onwards in a game using dice and moving counters up to 10; continuing to say, sign or indicate the count aloud when an adult begins counting the first two numbers]
- Pupils recognise differences in quantity [for example, in comparing given sets of objects and saying which has more or less, which is the bigger group or smaller group]
- They recognise numerals from one to nine and relate them to sets of objects [for example, labelling sets of objects with correct numerals]. In practical situations they respond to 'add one' to or 'take one away' from a number of objects, [for example, adding one more to three objects in a box and say, sign or indicate how many are now in the box; at a cake sale saying, signing or indicating how many cakes are left when one is sold]
- They use ordinal numbers (first, second, third) when describing the position of objects, people or events [for example, indicating who is first in a queue or line; who is first, second and third in a race or competition]
- Pupils estimate a small number (up to 10) and check by counting [for example, suggesting numbers that can be checked by counting, guessing then counting the number of: pupils in a group; adults in the room; cups needed at break time].

Shape, space and measures





P4 Pupils search for objects that have gone out of sight, hearing or touch, demonstrating the beginning of object permanence [for example, searching for an object or sound when it is removed]

- Pupils match big objects and small objects [for example, finding a big football to place in a net with other big footballs, matching a small model car with a similar sized model car]
- They demonstrate interest in position and the relationship between objects [for example, stacking or joining objects or using construction materials].

P5 Pupils search intentionally for objects in their usual place [for example, going to the mathematics shelf for the box of shapes]

- They find big and small objects on request [for example, from a choice of two objects, identifying the 'big' and 'small']
- They compare the overall size of one object with that of another where there is marked difference [for example, they indicate which of two shoes is the bigger, compare objects – big boxes and small boxes]
- They explore the position of objects [for example, placing objects in and out of containers, placing objects inside and outside a hoop, fits as many objects as possible into a box].

P6 Pupils search for objects not found in their usual place, demonstrating their understanding of object permanence [for example, looking for cups when they are not in their usual cupboard]

- They compare the overall size of one object with that of another where the difference is not great [for example, identifying the bigger of two Russian dolls or nesting cubes]
- They manipulate three-dimensional shapes [for example, putting shapes into a shape sorter, using 3D objects to build and manipulate in role-play, rolling a tube in a race with a partner]
- They show understanding of words signs and symbols that describe positions [for example, responding to a request to put an object in, on, under, or inside another object].





P7 Pupils respond to 'forwards' and 'backwards' [for example, moving forwards and backwards on request, recognising when a vehicle is moving forwards or backwards, moving a counter forward or backward on a board game]

- They pick out described shapes from a collection [for example, picking out all the round shapes in the classroom, finding shapes with straight edges, fitting shapes into matching holes]
- They use familiar words in practical situations when they compare sizes and quantities, [for example, using the words 'heavy' and 'light', 'more' and 'less', 'enough' or 'not enough' to compare objects or quantities].

P8 Pupils compare objects directly, focusing on one dimension such as length or height where the difference is marked and can indicate 'the long one' or 'the tall one' [for example, comparing two plants, placed side by side and indicate the tall one, or comparing two zips and indicating the long one]

- They show awareness of time, through some familiarity with names of the days of the week and significant times in their day, such as meal times, bed times [for example, ordering events in their day on a visual daily timetable, understanding and using names of days of the week, 'no school on Saturday or Sunday, swimming on Wednesday']
- They respond to mathematical vocabulary such as 'straight', 'circle', 'larger' to describe the shape and size of solids and flat shapes [for example, when shopping, pupils find boxes with straight edges to pack into the carrier bag; identify the larger circle when stacking two cans]
- They describe shapes in simple models, pictures and patterns [for example, stamping shapes in sand and describing them, using a set of flat shapes to make pictures or patterns, naming some of the shapes used, identifying specific shapes from pictures, simple models or patterns].

