

## Mathematics: Shape, space and measures

Descriptor	Guidance
<p><b>P1(i)</b> Pupils encounter activities and experiences. They may be passive or resistant. They may show simple reflex responses, <i>for example, startling at sudden noises or movements</i>. Any participation is fully prompted.</p>	
<p><b>P1(ii)</b> 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, <i>for example, grasping objects briefly when they are placed in their hand</i>. They may give intermittent reactions, <i>for example, sometimes showing surprise at the sudden presence or absence of an event or object</i>.</p>	
<p><b>P2(i)</b> Pupils begin to respond consistently to familiar people, events and objects. They react to new activities and experiences, <i>for example, becoming excited or alarmed when a routine is broken</i>. They begin to show interest in people, events and objects, <i>for example, tracking objects briefly across their field of awareness</i>. They accept and engage in coactive exploration, <i>for example, lifting objects briefly towards the face in shared investigations</i>.</p>	
<p><b>P2(ii)</b> Pupils begin to be proactive in their interactions. They communicate consistent preferences and affective responses, <i>for example, showing a desire to hold a favourite object</i>. They recognise familiar people, events and objects, <i>for example, looking towards their own lunch box when offered a selection</i>. They perform actions, often by trial and improvement, and they remember learned responses over short periods of time, <i>for example, repeating an action with a familiar item of equipment</i>. They cooperate with shared exploration and supported participation, <i>for example, handling and feeling the texture of objects passed to them</i>.</p>	
<p><b>P3(i)</b> Pupils begin to communicate intentionally. They seek attention through eye contact, gesture or action. They request events or activities, <i>for example, pushing an item of equipment towards a member of staff</i>. They participate in shared activities with less support. They sustain concentration for short periods. They explore materials in increasingly complex ways, <i>for example, banging or rubbing objects together</i>. They observe the results of their own actions with interest, <i>for example, as they throw or drop objects on to different surfaces</i>. They remember learned</p>	

<p>responses over more extended periods, <i>for example, remembering how to activate a pop-up object from a previous lesson.</i></p>	
<p><b>P3(ii)</b>  Pupils use emerging conventional communication. They greet known people and may initiate interactions and activities, <i>for example, dropping objects to prompt interventions from adults.</i> They can remember learned responses over increasing periods of time and may anticipate known events, <i>for example, collecting coats and bags at the end of the school day.</i> They may respond to options and choices with actions or gestures, <i>for example, pointing to or giving one object rather than another.</i> They actively explore objects and events for more extended periods, <i>for example, manipulating objects in piles, groups or stacks.</i> They apply potential solutions systematically to problems, <i>for example, using items of equipment purposefully and appropriately.</i></p>	
<p><b>P4</b>  Pupils search for objects that have gone out of sight, hearing or touch, demonstrating the beginning of object permanence, <i>for example, searching for an object or sound when it is removed.</i> Pupils match big objects and small objects, <i>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.</i> They demonstrate interest in position and the relationship between objects, <i>for example, stacking or joining objects or using construction materials.</i></p>	
<p><b>P5</b>  Pupils search intentionally for objects in their usual place, <i>for example, going to the mathematics shelf for the box of shapes.</i> They find big and small objects on request, <i>for example, from a choice of two objects, identifying the 'big' and 'small'.</i> They compare the overall size of one object with that of another where there is a marked difference, <i>for example, they indicate which of two shoes is the bigger, compare objects - big boxes and small boxes.</i> They explore the position of objects, <i>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.</i></p>	
<p><b>P6</b>  Pupils search for objects not found in their usual place demonstrating their understanding of object permanence, <i>for example, looking for cups when they are not in their usual cupboard.</i> They compare the overall size of one object with that of another where the difference is not great, <i>for example, identifying the bigger of two Russian Dolls or nesting cubes.</i> They manipulate three-dimensional shapes, <i>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.</i></p>	

<p>They show understanding of words signs and symbols that describe positions, <i>for example, responding to a request to put an object in, on, under, inside another object.</i></p>	
<p><b>P7</b>  Pupils respond to 'forwards' and 'backwards', <i>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.</i> They pick out described shapes from a collection, <i>for example, picking out all the round shapes in the classroom, finding shapes with straight edges, fitting shapes into matching holes.</i> They use familiar words in practical situations when they compare sizes and quantities, <i>for example, using the words 'heavy' and 'light', 'more' and 'less', 'enough' or 'not enough' to compare objects or quantities.</i></p>	
<p><b>P8</b>  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', <i>for example, comparing two plants, placed side by side and indicate the tall one or comparing two zips and indicating the long one.</i> 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, <i>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'.</i> They respond to mathematical vocabulary such as 'straight', 'circle', 'larger' to describe the shape and size of solids and flat shapes, <i>for example, when shopping, pupils find boxes with straight edges to pack into the carrier bag; identify the larger circle when stacking two cans.</i> They describe shapes in simple models, pictures and patterns, <i>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.</i></p>	
<p><b>1C</b>  Pupils construct with 3-D shapes and make some arrangements and patterns of 2-D shapes. They recognise and name some familiar 2-D shapes such as circle, triangle and square. They match and sort these shapes in activities. They use everyday vocabulary for properties and positions, <i>for example, 'top', 'bottom', 'side'</i> and they order objects, <i>for example, by indicating the 'heavier' or 'shorter' object in a pair.</i></p>	
<p><b>1B</b>  Pupils work with, recognise and name common 3-D shapes, <i>for example, cube and cylinder and 2-D shapes, for example circle, triangle, rectangle, square.</i> They describe the basic properties of these shapes and make simple comparisons between them using</p>	

<p>terms such as 'larger', 'smaller', 'curved' and 'straight'. They recognise terms describing position such as 'on top', in front of', 'behind', <i>'in the middle'</i> and <i>'in between'</i>. They measure and order more than two objects, using direct comparison. They order everyday events logically and begin to use the vocabulary of time.</p>	
<p><b>1A</b> Pupils sort and describe 3-D and 2-D shapes in terms of their properties and positions. They compare two lengths, masses/weights by direct comparison. They continue and create simple spatial patterns, for example red cylinder, blue cube, red cylinder . . . They recognise directional symbols such as arrows.</p>	

