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| Geometry: Properties of Shape | | | | | | | | | | |
| Nursery | Reception | Early Learning Goal | Year 1 | Year 2 | | Year 3 | | Year 4 | Year 5 | Year 6 |
|  |  |  | Identifying Shapes and their properties | | | | |  |  |  |
| Talk about and explore 2d and 3d shapes… using informal and mathematical language “sides”, “corners”, ”straight”, “flat”, ”round” Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. Combine shapes to make new ones. | Select, rotate and manipulate shapes in order to develop spatial reasoning skills  Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Recognise and name common 2d and 3d shapes and talk about properties of sides, corners, edges, faces, curved and flat, | **There is no ELG for SSM** | recognise and name common 2- D and 3-D shapes, including: \* 2-D shapes [e.g. rectangles (including squares), circles and triangles] \* 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres]. | identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line  identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces  identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] | |  | | identify lines of symmetry in 2-D shapes presented in different orientations | identify 3-D shapes, including cubes and other cuboids, from 2- D representations | recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing) illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius |
| Drawing and Constructing | | | | | | | | | | |
| Understand position through words alone eg “The bag is under the table” without pointing Select shapes appropriately: flat shapes for building eg a triangular prism for a roof  Using construction sets to create various models. | Compose and decompose shapes so that children recognise a shape can have others shapes within, just as numbers can.  Using various construction sets in sustained construction projects eg The Shard, The 3 bears beds and chairs. | NO ELG |  |  | | draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them | | complete a simple symmetric figure with respect to a specific line of symmetry | draw given angles, and measure them in degrees ( o ) | draw 2-D shapes using given dimensions and angles  recognise, describe and build simple 3-D shapes, including making nets (Also shown in Identifying Shapes and Their Properties) |
| Comparing and Classifying | | | | | | | | | | |
| Talk about and compare 2d and 3d shapes (eg circles, rectangles, triangles and cuboids) using informal and formal mathematical language eg sides, corners, flat, round. Make comparisons between objects relating to size, length | Select, rotate and manipulate shapes in order to develop spatial reasoning skills Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. To sort shapes into categories according to their properties, eg all 3 sided shapes, shapes with curved edges | No ELG |  | compare and sort common 2-D and 3-D shapes and everyday objects | |  | | compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes | use the properties of rectangles to deduce related facts and find missing lengths and angles  distinguish between regular and irregular polygons based on reasoning about equal sides and angles | compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons |
|  |  |  | Angles | | | | |  |  |  |
|  |  |  |  | |  | | recognise angles as a property of shape or a description of a turn  identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle  recognise angles as a property of shape or a description of a turn | identify acute and obtuse angles and compare and order angles up to two right angles by size | know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles  identify:  \* angles at a point and one whole turn (total 360 o )  \* angles at a point on a straight line and ½ a turn (total 180 o )  \* other multiples of 90 o | recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles |