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| **Mathematics: Shape, Space and Measures: Shape - Developing Knowledge and Skills Sequentially** | | | |
| **Range/Knowledge** | | **Positive Relationships** | **Enabling Environments** |
| 1. | • Explores differently sized and shape items  • Begins to put objects of similar shapes inside others and takes them out again | • Encourage babies to explore the characteristics of objects, e.g. by rolling a ball or sliding a block • Demonstrate putting items inside others of similar shape | • Provide interestingly shaped objects to explore.  • Make towers for children to knock down using objects that stack |
| 2. | • Stacks objects using flat surfaces  • Responds to changes of shape  • Attempts to match shapes with spaces on inset puzzles sometimes successfully | • When playing with malleable materials draw attention to shapes as children create and change the materials. | • Provide blocks and boxes to stack, build and solve problems with • Provide a range of inset puzzles and support children as they explore matching shapes with spaces. |
| 3. | • Pushes objects through different shaped holes and tries to fit shapes into spaces on inset boards or puzzles.  • Begins to select a shape for specific space  • Enjoys using blocks to create their own simple structures/arrangements | • Model thinking about the properties of shapes when selecting them to fit into spaces, e.g. *Oh look, we need a round one*.  • When playing alongside children who are building, provide commentary about the shapes you are using. | • Provide a range of inset board and puzzles with large pieces • Provide a range of construction materials for  independent play • Organise storage by their shape, with photos or silhouettes to show where things are kept. |
| 4. | • Chooses puzzle pieces and tries to fit them in • Recognises that two objects have the same shape • Makes simple constructions | • Chat about the shape of the pieces and the holes when fitting pieces into inset puzzles.  • Model comparing two objects to see if they have the same shape in purposeful contexts.  • Suggest choosing a particular shaped item for a purpose. • Model your thinking when building | • Provide a range of inset/jigsaw puzzles of increasing complexity for children to choose.  • Provide a variety of construction materials  including some with identical pieces so that children freely explore *same* and *different.* |
| 5. | • Chooses items based on their shape which are appropriate for the child’s purpose  • Responds to both informal language and common shape names  • Shows awareness of shape similarities and  differences between objects  • Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes  • Attempts to create arches and enclosures when building, using trial and improvement to select blocks | • Help children choose shapes for a purpose, e.g. a triangular block for a roof and wedge-shaped block for a ramp. • Offer an appropriate or inappropriate shape for what you think the child’s purpose might be to investigate their thinking. • As children experience shapes, use informal language (e.g. *slanty, pointy, twisty, wiggly, bumpy*), common shape names (e.g. *cylinder,* *cone, circle, square*) and “nearly” shapes (e.g. *This is almost a square but it’s got curvy corners*). Find out and use equivalent terms for shapes inhome languages. • Discuss how shapes can be partitioned in everyday contexts, e.g. cutting food in different ways. • Value children’s constructions and solutions to problems they have set themselves and talk about how shapes have combined to make new shapes. | • Provide differently shaped resources to handle,  carry, move and explore.  • Provide large and small blocks and boxes for  construction both indoors and outdoors. |
| 6. | • Uses informal language and analogies, (e.g.  *heart-shaped and hand-shaped leaves*), as well as mathematical terms to describe shapes  • Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes  • Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build | • Encourage children to use the names of shapes and their properties (e.g. *straight, curved, edges*) and prompt them to say what shapes remind them of.  • Discuss different examples of the same shape (e.g. equilateral and right-angled triangles) in a variety of orientations.  • Take opportunities to discuss the shapes that children paint, draw and collage and shapes noticed in their local environment using  regular shapes and shapes with no name.  • When acting out their own stories encourage children to make the shapes involved on their own or with others.  • When constructing, sensitively discuss which shapes make other shapes (e.g. triangles making rectangles and hexagons with pattern  blocks or mosaic tiles).  • Challenge children to make more complex constructions, such as towers of arches, a window or a staircase. | • Provide resources for shape play including unit  blocks, pattern blocks, mosaic tiles and jigsaw  puzzles with different levels of challenge.  • Teach strategies for solving shape and jigsaw  puzzles, describing shape properties and modelling  the mathematical vocabulary such as *straight,*  *corner, edges.*  • Play games focussing on the properties of shapes,  such as hiding and partially revealing a shape,  asking children to say what different shapes it  could be or not, and why. |