

DOMAIN 4: GENERAL KNOWLEDGE**SUB-DOMAIN: MATHEMATICS AND NUMERACY****PROPERTIES OF ORDERING**

GOAL 41: CHILDREN DEMONSTRATE UNDERSTANDING OF PATTERNS, RELATIONS, AND FUNCTIONS USED TO ORGANIZE THEIR WORLD AND FACILITATE PROBLEM SOLVING.

Age Range	Developmental Growth	Child Indicators	Caregiver Strategies
<p>36 to 60 Months</p>	<p>Sorts, orders, classifies, and forms simple patterns among objects using color, number, size, and shape.</p>	<ul style="list-style-type: none"> ▪ Compares shape and size of familiar objects. ▪ Identifies and labels different kinds of two-dimensional shapes (square, circle, rectangle, and triangle). ▪ Sorts and builds stable structures with two- and three-dimensional shapes (e.g. unit blocks, Legos, spheres, cubes, cones). ▪ Sorts and classifies objects using vocabulary to describe and compare groups (e.g. more/less and same/different). ▪ Creates pictures and structures using various shapes. ▪ Recognizes non-geometrical shapes in nature (clouds or other things that are not circles, squares, triangles). ▪ Describes and compares characteristics of familiar geometric and non-geometric shapes in the environment, with assistance (e.g. putting away unit blocks, preparing foods, serving self at mealtimes). ▪ Puts together and takes apart shapes to make other shapes (e.g. uses two triangles to make a rectangle). ▪ Makes and describes patterns including serration based on numbers, shapes, and size. ▪ Predicts what comes next in a pattern and completes the pattern with art materials or blocks. ▪ Creates or extends a complex pattern with more than two repeating elements. 	<ul style="list-style-type: none"> ▪ Engage the child in recognizing shapes in the environment (e.g. octagonal stop sign, bowls are circles). ▪ Provide a variety of increasingly complex materials related to patterns including preschool Legos, puzzles, and stringing beads. ▪ Provide opportunities for child to create art projects that use shapes (e.g. "You can draw a house by putting a triangle on top of a square." "Look at the door. What shape is it? You can draw a door in that shape."). ▪ Provide materials that can be connected and combined to create new shapes. ▪ Take child to observe murals or other community artwork; exploring together the variety of shapes used. ▪ Provide picture recipes that include step by step instructions for children to follow and complete. ▪ Play classification games with child (e.g. gather a group of items that include pairs of objects that go together - shoe/sock flower/vase, and find the items that go together). ▪ Play matching games that challenge the child to recognize what is missing. ▪ Play games that challenge the child to describe and identify shapes. ▪ Use a sensory bag or box where the child reaches in, feels, and describes an object/shape and attempts to name it. ▪ Challenge child to repeat patterns made by clapping, stomping, or with rhythm instruments.

			<ul style="list-style-type: none"> ▪ Provide materials such as pattern blocks to create patterns and designs. ▪ Encourage child to retell stories, recalling a sequence of events (e.g. "The Very Hungry Caterpillar" or "Goldilocks and the Three Bears"). ▪ Set up a stage and props for children to tell, retell, and act out stories (e.g. "Three Little Pigs" or "Three Billy Goats Gruff"). ▪ Display children's daily activities in sequence. Encourage child to explore ordinal numbers (first, second, third, etc., and last) used to describe members of a sequence of objects or events. ▪ Ask child to describe or explain a sequence used during a familiar activity or routine and ask, "What comes first? What comes next? "What comes last?" ▪ Provide materials in shapes that can be used to represent or recreate murals or other art forms in the community. ▪ Offer a daily "jobs list" where children set the tables for lunch or snack, using a specific routine and items. ▪ Provide storage for materials that encourage sorting clean up (labeled separate containers for pencils or markers).
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