

Child's Growth and Learning

Domain: Mathematics

Key Element: Number and Operations

ACTIVITY	OBJECTIVES	MATERIALS
Archeological Math	<p>Student will discriminate between objects to categorize into similar groupings.</p> <p>Student will count number of objects to complete graph on paper.</p> <p>Student will talk about more, least, and recognize counting by visual measurement as well as number quantity.</p>	<p>Sand table Sand or sawdust Small sea shells Miniature dog bones Buttons or fake jewels Plastic spiders Small pastry or paint brushes Plastic spoons or small shovels Empty ice cube trays Pre-printed graph template</p>

Lesson Plan

With a permanent marker, draw a thick line down the middle of each ice cube tray. This will assist students in discriminating between columns for sorting. Set a table next to the sand table for the trays. In a sand table, place sand or sawdust. Bury the sea shells, dog bones, buttons and plastic spiders within the sand. Students will become archeologists and “dig” for the materials. Using the brushes, students will clean objects, brushing away sand. Using 4 ice cube trays, students will place each object found in the correct column; sorting their finds. After digging, student will use the pre-printed graph template to record their “find”. Student will color in the corresponding blocks for each item found in the column. Teacher will facilitate conversation about same and different, categorizing, and counting the corresponding number of objects in each category. Printed numerals will correspond with the visual shaded blocks for each column of objects on the pre-printed graph template.

Guidance/Facilitation/Teacher Behaviors

Teacher will prepare materials and facilitate questions about discrimination of sorting and assist in transfer of visual to printed graph.

Procedure/Process/Expected Child Behaviors

Student will engage in pretend play while using math skills to categorize, sort, and measure as well as count real objects.

Extensions

Graphing: Make a visual graph of girls and boys in the classroom. Record the information on a graph using student pictures. Sorting: Each child divides a piece of paper in half and picks a category for each side. For instance, the left side of the page might be for round items and the right side for square items. From a variety of materials, the student selects items that fit their categories and paste these items onto the paper.

Evaluation

Teacher will observe during play. Teacher will intervene when a student is having difficulty using questioning. Teacher will ask questions about the “finished” printed graph sheet about how the student gained the information to check for understanding.

Archaeological Math

Name: _____

10				
9				
8				
7				
6				
5				
4				
3				
2				
1				
0				
	Sea Shells	Bones	Jewels	Spiders

How many Sea Shells did you find? _____

How many Bones did you find? _____

How many Jewels did you find? _____

How many Spiders did you find? _____

What group had the most? _____

What group had the least? _____