

CURRICULUM FOR “EARLY MATH MATTERS” PROGRAM

Building Number Sense

- one-to-one correspondence
- cardinality
- sequencing 1-10
- linking sets to numerals
- perceptual subitizing
- comparing quantities, 1-10
- using concrete materials to show ways to make 5
- decomposing and recomposing quantities to 10
- numbers can be arranged and recognized
- benchmarks of 5 and 10
- making 10
- part-part-whole thinking
- using concrete materials to show ways to make 10

Working with Patterns

- identifying patterns in the world
- repeating patterns with 2-3 elements
- identifying the core
- representing repeating patterns in various ways

Developing Foundations of Number Operations

- generalizing change by adding 1 or 2
- modeling and describing number relationships through change

Building Spatial Sense

- linear-height, width, length (e.g., longer than, shorter than, taller than, wider than)
- mass (e.g., heavier than, lighter than, same as)
- using positional language, such as beside, on top of, under, and in front of
- left-turn and right-turn

Seeing mathematics in daily life

- role-playing financial transactions, such as in a restaurant, bakery, or store, using whole numbers to combine purchases (e.g., a muffin is \$2.00 and a juice is \$1.00), and integrating the concept of wants and needs
- Estimate reasonably
- Develop mental math strategies and abilities to make sense of quantities

Developing processes of mathematical reasoning, logic, and communication

- Use reasoning and logic to explore and make connections
- Use multiple strategies [visual, oral, role-play, experimental, written, symbolic] to engage in problem solving
- Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving
- Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community
- Communicate [concretely, pictorially, symbolically, and by using spoken or written language to express, describe, explain, and apply mathematical ideas] in many ways
- Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations
- Use technology [pen, pencil, paper, crayons, iPad, camera] appropriately to explore mathematics, solve problems, record, communicate, and represent thinking
- Visualize and describe mathematical concepts