Activity Sheet

Title: Sequence with 2-3-4 elements

Category: Mathematical awakening

ORGANISATION OF THE EXERCISE

Duration: 10 minutes outside in the schoolyard and then 20 minutes in the classroom (30 min)

Arrangement: Entire class in the schoolyard, inside the classroom at tables

Age: 4 to 6 years old

Materials: All sorts of objects (rocks, markers, brushes, beads, shapes, caps...), several algorithmic sequences with 3 to 4 elements.

Objective(s): Identifying the organizational principle of an algorithm and continuing its application

CONDUCT OF THE EXERCISE

Motivation(s) for the exercise : In the courtyard, the educator organizes a small singing game that is to be played in a circle. Initially, the children form a circle as they wish. The educator then asks them to group together: boys with boys and girls with girls. Next, the educator suggests alternating between girl, boy, girl... They encourage the students to quickly participate in the organization.

"Who should come next? After a girl, we put...?"

They then resume the singing game. "Now, we will return to the classroom to continue our work."

Exercise : The educator circulates from table to table.

Phase 1: On each table, the educator has placed all sorts of objects. "You are going to sort all these objects." The children separate the objects, and the educator asks them to name them. If the children have difficulty, the educator helps them name the objects and guides them in their sorting.

Phase 2: The educator places a sequence of 3 elements on each table.

Example:

They ask the children to name this sequence (green-blue-yellow-green-blue) and tell them to reproduce this sequence and continue it. "What will come after the blue bottle cap? And then...". The educator validates or explains with the other children in the group. The educator proposes other sequences (with 3 elements for preschool and 4 elements for kindergarten).

Variation: The alternating colors can vary: blue blue yellow green blue blue yellow green / blue yellow yellow green green blue...

Phase 3: The educator asks a student to build a sequence (with 3 objects for preschool and 4 for kindergarten). This sequence is shown to the rest of the group, who must reproduce and continue it. The student who built the model sequence checks their classmates' sequences.

Extension: Find the mistake. The educator places an algorithmic sequence in the center of the table, which serves as the model sequence. They will reproduce the sequence but introduce an error. The educator asks the children, "Does what I've built follow the model sequence?" The children identify the error and correct it.

Application in a hands-on activity: Children can create compositions based on algorithms. Using paint, finger painting, brushes, or by sticking different materials (paper, fabric, cardboard), they can create sequences.

Control of acquisition: Depending on the age group, the educator presents a sequence of 3 or 4 elements using objects different from those handled during the session. The children must replicate and extend the sequence.