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LESSON PLAN

27th Chapter of 1st Grade Mathematics

PATTERNS

GOALS

- Recognition, comparison and analysis of patterns
- Observing the development and sequence in a given pattern.
- Reproduce or continue a given pattern
- Description and explanation of the sequence in a pattern

Materials: natural materials (leaves, branches, flowers) Cardboard, colored balls, strings, beads, musical instruments, speaker

Location: School yard – garden

ACTIVITIES

A. ORIENTATION – ELICITATION

In order to orient the children to the concept of pattern and for it to be elicited by them, we carry out activities related to experiential, practical and representational situations and concern a variety of patterns.

Experiential situations: We ask eight children to stand up and stand side by side in front of the rest of the class that remains seated. The standing children are positioned in the following order: the first child from the left faces the seated children, while the child next to him has his back turned to them. Then, the third child faces the seated children, while the fourth has his back turned towards them. This placement applies to all eight children. The other children in the class observe, explain what they see and then we discuss with them how the standing children are positioned.

Then, we raise another group of nine children, who stand side by side. The first two hold chopsticks, while the third holds a tambourine. The next two children hold sticks

and the third holds a tambourine as well. The same goes for the other three children. The first child taps the sticks twice softly. Immediately after that, the second child does the same. Then, the third child hits the tambourine once loudly. The same manner of sound reproduction is repeated by the rest two sets of three children. The children in the class observe, explain what they heard, and then we discuss with them the rotation of musical instruments and sounds and the way in which this rotation is organized.

Practical situations: We place in a row a leaf, a twig, a flower, a pencil, an eraser, a sharpener, etc. We ask the children to observe the objects, to describe and explain to us the order in which they are placed.

We also place balls of different colors in the following order: red, yellow, yellow, blue, red, yellow, yellow, blue, etc. Children observe the pattern and explain the order of colors.

Representational situations: We show the children images of folk embroidery or ancient vases with patterns. The children observe them, explain what they see and we discuss with them the sequence of the drawings.

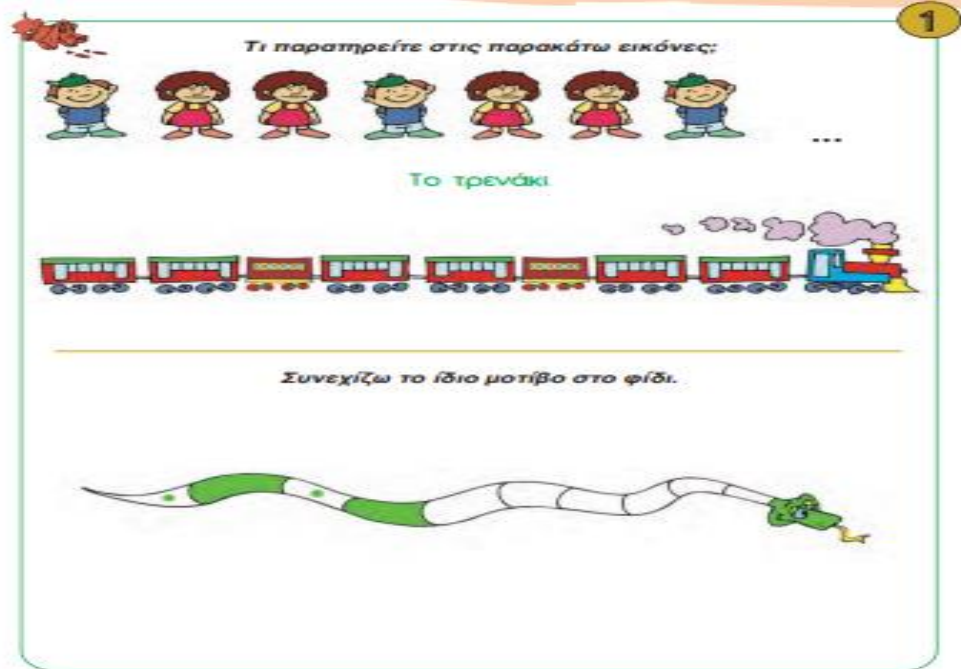






B. FORMALIZATION OF THE NEW KNOWLEDGE

Through the activities we listed and the related discussion, the children understand the meaning of the pattern, they learn the terminology and feel the new knowledge. They can then complete the pattern in the snake exercise in the student's book



(exercise 1, p 68).

After completing the exercise, the children verbalize what they did, reproducing their way of thinking (metacognitive process).

C. CONSOLIDATION AND APPLICATION

To consolidate and apply the new knowledge, the children do the exercises in the student's book, where they practice pattern reproduction (exercise 2, p. 69) and pattern continuation (exercise 3, p. 69).

Χρωματίζω με τον ίδιο τρόπο.

Συνεχίζω τον χρωματισμό με τον ίδιο τρόπο.

Παρατηρώ και συνεχίζω τον χρωματισμό.

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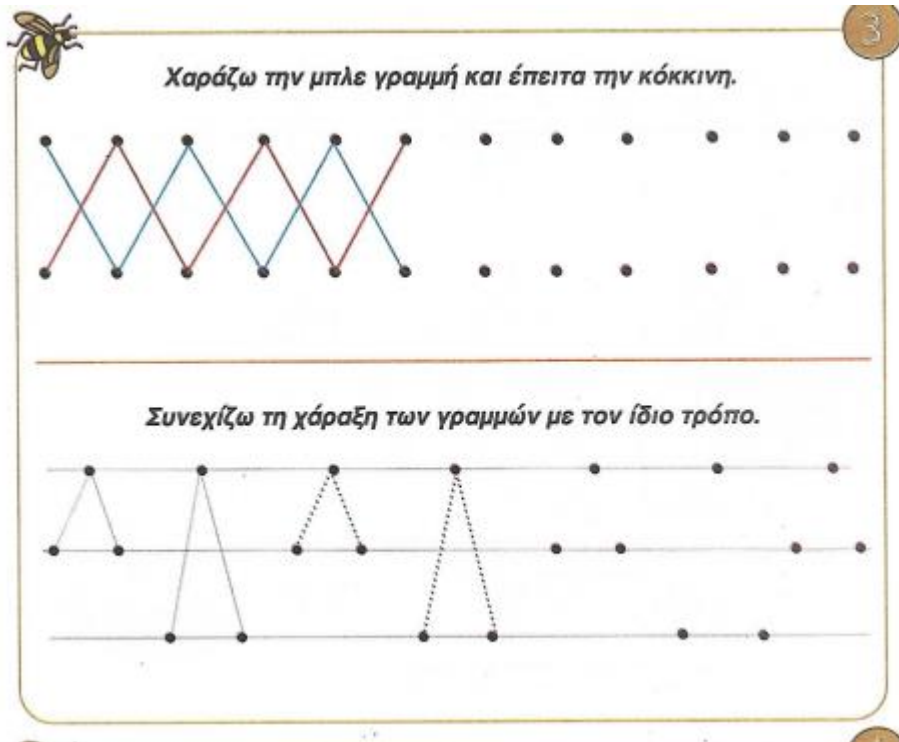
They also do the exercises in the workbook, where they practice continuing patterns (exercises 1,2, p. 28 and exercise 3, p. 29).

Συνεχίζω τον χρωματισμό με τον ίδιο τρόπο.

Συνεχίζω τη χάραξη της γραμμής και συμπληρώνω τον χρωματισμό.

Σχεδιάζω τα ίδια σχήματα.

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ADDITIONAL

ACTIVITIES

If time allows, we can give the children more opportunities to consolidate and apply the concept of pattern in relation to experiential, practical and representational situations.

Here are indicative activities:

Experiential: We listen to a musical pattern. We ask the children to recognize the pattern and create a choreography with movements corresponding to this pattern, that is, to combine the musical pattern with a movement pattern.

Practical: We give children strings and beads. We ask them to make a rosary or a necklace by creating their own pattern.

Representational: We divide the children into groups. We give them rectangular cardboard strips, which they will use as frames to decorate the classroom. The children of each group choose the object to decorate, e.g. the board, notice boards, windows, etc. and decide together the pattern with which they will paint their stripes, so that the decoration of each object is uniform.