I. Lesson Plan: Students will gain a basic understanding of patterns by creating very simplistic ones using both objects and three dimensional items.

Key Words:
pattern

Background: It is assumed that the students will have been exposed to and familiar with the following information: geometric shapes, alphabetic letters, and different colors present in everyday life. Students must also understand that different figures can be used to represent letters. An example of this is in an AB pattern an orange is used to represent A and an apple is used to represent B.

Learning Objectives: (Patterns, functions, and algebra)
1. Students will recognize that different shapes, colors, and alphabetic letters can be arranged into a certain pattern.
2. Students will recognize what the next shape, color, or letter will be in the arrangement they are given.
3. To recognize that patterns are present in our everyday lives.
4. Students will use patterns, relations and functions to model, represent and analyze problem situations that involve variable quantities.
5. Students will sort, classify, and order objects by size, number, and other properties, and describe the attributes used.
6. Students will create and extend patterns.

Materials needed:
Foam or plastic letters, plastic items such as various fruit, pictures, and shapes so that the children can learn patterns through hands on experience.

Suggested Procedures:
A. Set Attention Getter: Ask students questions to involve them. Can anyone tell me what a pattern is? Where can we see them in our environment?

    B. Group Students: The students would be grouped in pairs so that if one is unable to understand the concept of what would come next, they could work together to come up with the solution.

    C. Assessment: I would aces students through several different measures. First, I would evaluate students’ participation during discussion. Second, I would evaluate students’ cooperation and participation during group work. Finally, I would evaluate students’ performance on the activities that I assign.
Creating Patterns

- We have chosen to keep the exercises short because they are for young children.

1. Tell me the name of this pattern.

   ◯ ◯ ◯ ◯ ◯ ◯
   ______

2. Use a heart, a star, and a triangle to create an abc pattern.

   A B C A B C

3. Use a square, circle, and a diamond to create an ABBC pattern.

   A B B C A B B C

4.-5. Create 2 of your own patterns. Label the shapes by letters.

   (This is an example. Please do not create this pattern. Create your own and show me what you know.)

   ◯ ◯ ◯ ◯ ◯ ◯ ◯
   A B A C A B A C
   ______

4.

5.
Making Patterns

These are the exercises that we will complete in small groups. Use the fruit to make your patterns. Wait until I have checked your work to move on.

1. AB pattern
2. ABB pattern
3. ABC pattern
4. ABBC pattern
5. ABCD pattern
6. ABCCD pattern
7. ABCDD pattern