1st Grade Math: Making Patterns with Plane Shapes

Objective: Students will learn how to create and recognize patterns using plane (2D) shapes.

What are Patterns?

A **pattern** is something that repeats in a predictable way. When we use shapes to make patterns, we arrange them in a specific order that repeats.

Common Plane Shapes:

- **Circle**
- **Square**
- **Triangle**
- **Rectangle**

Types of Patterns:

1. **AB Pattern:** Two shapes repeat. For example:

   (Circle, Square, Circle, Square)

2. **ABC Pattern:** Three shapes repeat. For example:

   (Triangle, Circle, Square)

3. **AAB Pattern:** Two of the same shapes followed by a different one. For example:

   (Square, Square, Triangle)

Creating Patterns with Plane Shapes

To create a pattern, follow these steps:

1. **Choose Your Shapes:** Pick two or more different shapes. For example, you can use a circle and a square.
2. **Arrange the Shapes in Order:** Decide what order to place the shapes in. For example, you can place a circle, then a square.
3. **Repeat the Pattern:** Once you've created a sequence, repeat it several times to make a full pattern.

Examples of Patterns with Plane Shapes

1. **Circle and Square Pattern:**

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   This is an **AB** pattern because it repeats two shapes (circle and square).

2. **Triangle, Circle, and Square Pattern:**

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   This is an **ABC** pattern because it repeats three shapes.

3. **Two Squares, One Triangle Pattern:**

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   This is an **AAB** pattern because it repeats two squares and then one triangle.

Activity: Make Your Own Pattern

Materials Needed:

- Cut-out plane shapes (circles, squares, triangles, rectangles)
- Glue and a blank piece of paper

Instructions:

1. Give students various cut-out shapes.
2. Ask them to create their own pattern using the shapes.
3. Let them glue the shapes onto the paper, following their pattern.
4. Once the pattern is complete, they can share their work with the class.

Discussion Questions

- What shapes did you use to make your pattern?
- Can you find the part of your pattern that repeats?
- What happens if you add another shape to your pattern?

Summary

In this lesson, students learned how to create and identify patterns using plane shapes. Patterns help us recognize sequences and can be found everywhere in the real world!