

# Same Rule, Different Stuff

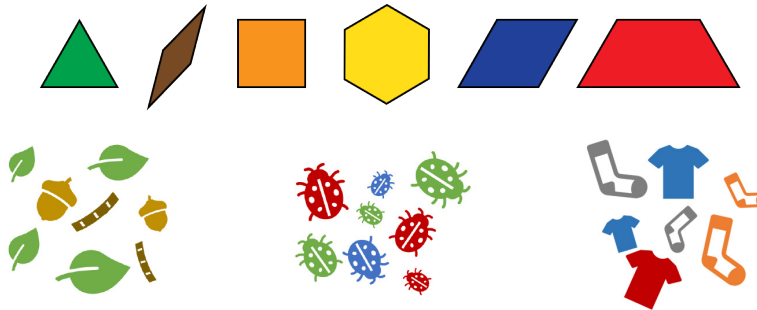
Players 1-4    Ages 5+    5-10 min

## GOAL

Copy a pattern using different materials.

## MATERIALS

Any materials you have enough of to make a pattern



## VOCABULARY

Pattern: a design that repeats in a predictable way so that you know what comes next

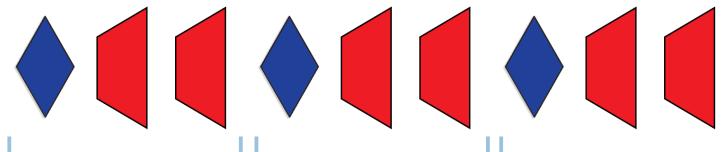
## QUESTIONS

Can you make the same pattern that I made but using different materials?

What is repeating in this pattern?

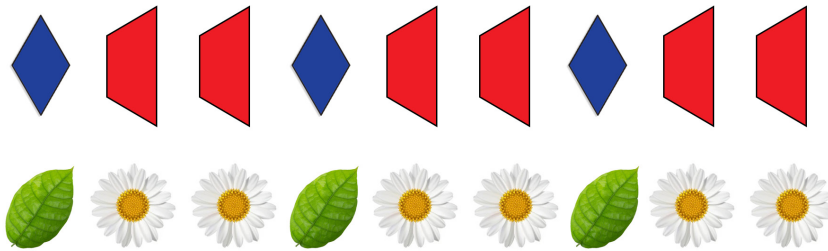
## HOW TO PLAY

1. Create a pattern with at least two repeating units.



**What is a repeating unit?** Patterns repeat in predictable ways. One type of pattern is the “red, white” pattern of stripes on the United States flag: red, white, red, white, red, white... In this case, the repeating unit is “red, white.” A repeating unit is the part of the pattern that repeats over and over again.

2. Ask, “Can you make the pattern like mine but using different materials?”
3. Ask children, “What is repeating in this pattern?”



### TIPS FOR PLAYING

- This is an advanced patterning skill for young children, so give them a lot of practice with it.
- For an extra challenge, you can show children only one repeating unit and ask them to build a pattern by repeating that unit with similar or different materials.

### WHAT CHILDREN ARE LEARNING

- To copy a pattern structure using different materials, children need to be able to recognize the repeating unit of a pattern. For example, if you have rock, stick, rock, stick, you can think about it as something, then something else, then the first thing again. If you take some other materials, like colored bears, you can transfer the pattern by putting red bear, blue bear, red bear, blue bear. The mathematical term for this is *transfer* because it focuses on transferring the structure of a pattern, not copying the pattern exactly.

- In elementary school, children may learn to use letters to represent a repeating pattern. Each unique item in the pattern's repeating unit can be assigned a letter. A triangle, square, square pattern, could be called an ABB pattern, where the triangle is represented by A and the square is represented by B. Using letters makes it a lot easier to talk about different pattern structures and describe them to others.

## MATH TOPICS

Patterns and Structure

Shapes and Geometry

## VIDEO



### Watch Game Video

View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play *Same Rule, Different Stuff*.