

Name(s) \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

## Activity Guide: Circle-Triangle-Square

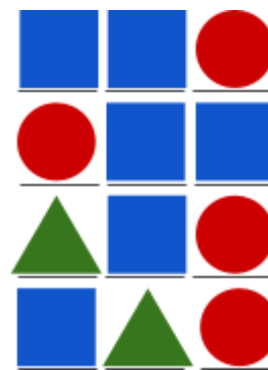


### Instructions

Given 3 places to work with, make as many *unique* patterns as you can using only circles, triangles and squares.

The diagram on the right shows a few examples of some 3-place patterns.

**NOTE:** Order matters, so, for example: Circle-Triangle-Square is a different pattern than Square-Circle-Triangle, even though both have one of each shape.



### Challenge 1 - Find all of the 3-place patterns

**Record** all of the unique 3-place patterns you can find in the template started below.

**Suggestion:** think about trying to find the patterns in an organized or systematic way, rather than just randomly.

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## Challenge 2 - make a system for generating all the patterns

Now that you've listed out all of the 3-place patterns of circles, triangles, and squares, let's put them in a systematic order. *You can use any system you like, as long as you create and follow a clear set of rules for getting from one line to the next.*

**Suggestion:** Use the space below to reorder the patterns on the other side of the page using a consistent system. Number each line to make sure you have them all.

**Jot down the rules of your system below.**

**Suggestion:** *to test your rules, have someone follow them to see if they can recreate your organized list above.*