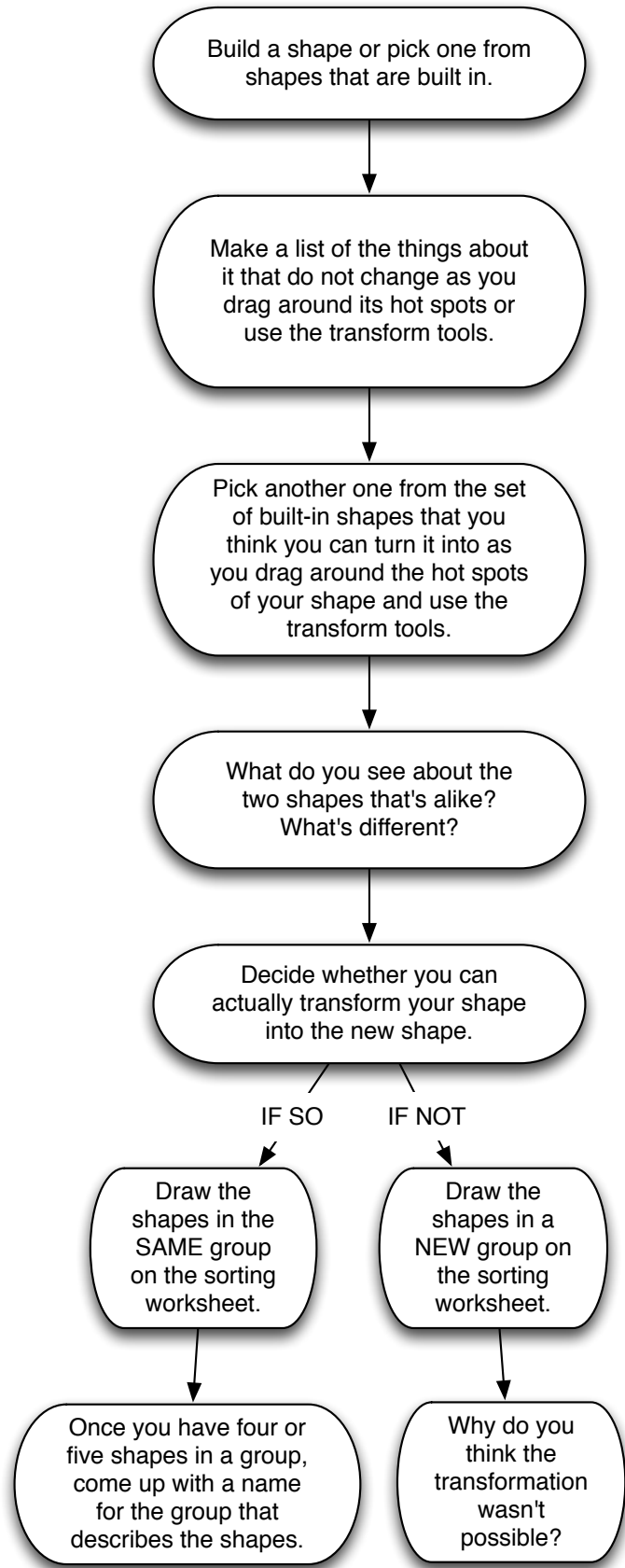


Configure: Activity for Teachers

Instructions:

- The following activity is to be implemented with your students. They will be using dynamic geometry software called *Configure* to complete the tasks. That software is free and web-based, and can be found at www.playwithshapes.com. I would suggest that students complete the activity in pairs, but a single student working alone could also have a wonderful and productive experience.
- To begin, a “sorting worksheet” should be drawn on a blank sheet of paper by dividing the paper into six or eight regions of equal size. Students will be drawing “alike” shapes in each of those regions.
- The instructions for the activity are present in the flow chart. Basically what the students will be doing is determining which shapes are alike according to the ways that the software will allow them to transform shapes. This way of thinking about “aliveness” is most likely going to be a new way of thinking about aliveness for your students. It is similar to the way it’s thought about in an advanced mathematics course called topology. Essentially, two shapes are alike if one can be stretched and bent – without tearing or breaking – to form the other. This way of thinking about aliveness is why topology is informally referred to as “rubber sheet geometry.” Basically, *Configure* is a tool that allows users to stretch and bend, but not break or tear, two-dimensional shapes. As students progress through the activity, they will be developing groups of shapes that are alike in each region of the sorting worksheet.
- It’s critical to understand that this activity provides students with an opportunity to engage in authentic mathematical activity, which is more about the things students say, do, and think about as they produce sets of shapes that are alike than about the quantity and qualities of those sets.



Definition: Two shapes are **ALIKE** if they can be transformed into each other by bending or stretching.

Instructions: In each space below, create a group of shapes that can be transformed into each other using only these TRANSFORM buttons: