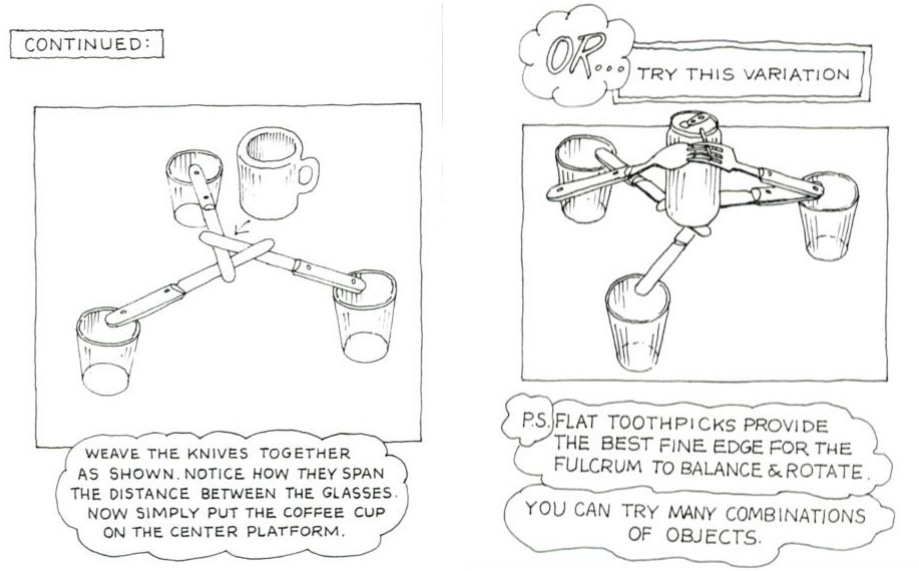


ANSWER KEY: Okamura's Extended Cup Platform

Possible Solutions:



What's Going On?

The center of weight* for any given object is the point at which an object can balance when gravity pulls down on the object. This means the weight of the object is the same on either side of the center. The center of weight, however, may not be the same as the center of distance. When trying to balance a cup on top of three knives or popsicle sticks, you need to consider the cup's weight as now part of the knives' or sticks' weight. That is, with the addition of the cup, the center of weight for the three knives or sticks has shifted, and the activity challenges you to find the new center of weight.

You will have to consider the weight of the cup in relationship to the weight of the three knives or sticks, as the weight of the cup can't weigh more than the three knives.

*Boundary: At grade 5, mass and weight are not distinguished. (5-PS1-3)