



Styrofoam Cup Bridge

Materials:

- 3 Styrofoam cups
- 2 pieces of typing paper
- 12 pennies

Directions:

- 1) Use two of the Styrofoam cups to balance one sheet of paper.
- 2) Put the third cup on the top of the balanced sheet of paper in the center.
- 3) How many pennies will the bridge support?
- 4) Now, take the other piece of paper and fold it like an accordion.
- 5) Do the same set up with the cups but put the accordion piece of paper as the bridge.
- 6) How many pennies will this bridge support? Why do you think the shape of the paper made a difference in the strength of the bridge?

Inquisitive Minds Want to Know

*When the weight can be spread out with a support structure (folding), the bridge becomes stronger. The accordion fold spreads the force or weight; this allows more of the paper to be used to support the cup.