

The Chicken Egg is a Great Arch

(Target Audience: 9-12)

One of the greatest architectural structures ever is the arch. Many ancient civilizations used it to hold up their buildings and the Romans built aqueducts to move water along great distances to cities and towns. The Mayans created several different arch designs to hold up buildings in their temple complexes and the ever resourceful Inuit traditionally built arches out of snow to create igloos to survive harsh northern weather.

Try this demonstration to show how strong arches are by seeing how much weight can be supported on 4 eggs. Note: this is a fun, simple, safe but messy project, so paper the floor with newspaper and/or plastic.

Supplies:

- 4 raw eggs (boiled eggs will do, but not as fun)
- 2 egg cartons, (the type that will hold one dozen eggs) taped together. Remove the lids.
- A sheet of corrugated cardboard slightly larger than the egg cartons
- A lot of phone books or heavy books, or one preschooler

Instructions:

1. Put an egg in each corner of the egg carton.
2. Place the cardboard on top.
3. Pile on top as many books you need to make the eggs break. Or, have a preschool child carefully stand on the top and count the number of seconds or minutes it takes to break the eggs. Have fun!

The egg is actually made of two arches one at either end.

