

Praxis “Making Science Fun”

Eggsellent Easter – Egg Shells Are Strong

How strong is an egg shell? You tend to think of egg shells as fragile but this experiment will demonstrate they are much stronger than you think.



Materials:

- 4 ½ egg shells (similar sized)
- Masking tape
- Scissors
- Weights (Books, cans or anything else that can be stacked)

Procedure: (Remember to be sure to have your parent’s permission and they have the time to watch and help you.)

- Wrap a piece of masking tape around the outside of the open end of the ½ eggshells. Use the scissors on the masking tape reinforced shell edge to cut each of the 4 egg shells so that they are similar in height. The tape will keep the shells from cracking and let you get a flat edge on each of the shells.
- Lay each of the four halves down on a table with the cut side down and the domed side up. Put them close together to make a square.
- Start laying on the weights. This experiment can be done with a variety of both canned food cans and books. The easiest way is to put a small book on first and then add other things on top of the book.
- Keep stacking on the weights until one of the eggshells begins to crack. Be sure to note how much weight the eggs hold – you’ll be impressed.

What's happening?

The real secret to the strength of the eggshells is their shape. Because each shell is domed, there is no single point on the shell that has to support all the weight. The weight is carried down the curved walls to the base of the shell (the flat edge). This makes them extremely strong.

Eggstension:

Look for applications of this idea to building construction (domed roofs) and other elements in real life.

See <http://www.kidcraftsmagazine.com/> for more eggacting science eggsperiments.

This activity is based on our seasonal “Easter” Learning Kit. Our teaching kits (described on our website) are loaned out FREE to provide classroom teachers and parents of home schooled children an opportunity to explore Science in interesting ways. Please consider volunteering as one of our classroom speakers or allow your business as a field trip location.



The major event that Praxis is involved today March 24th at Medicine Hat College, is the Kiwanis Regional South East Alberta Science Fair. Judging starts at 9:00 am and there is no charge to the public to attend this event. For more information check out our Praxis website and their website at: <http://www.seab-sciencefair.com/>

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