

## Praxis “Making Science Fun”

### Eggsellent Easter – Egg in a Bottle

How did you get that egg in the bottle?

#### Materials:

- 2 bottles with a neck slightly smaller than the egg
- 2 Peeled hard boiled eggs
- Boiling water



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

- Set the peeled egg on the neck of the bottle to make sure that the egg simply won’t fit in the bottle.
- Remove the egg from the top of the bottle and carefully pour the boiling water into the bottle. Without spilling on yourself, roll the water around in the bottle and then pour it out.
- Quickly put the egg back on the neck of the bottle.
- Wait and observe what happens.

#### What's happening?

When you put the hot water into the bottle and then poured it out steam was left behind in the bottle. The steam takes the place of some of the air that was in the bottle. As the steam cools down, it converts into tiny droplets of water. The droplets take up less space and this reduces the air pressure in the bottle. Since the pressure on the outside of the bottle is greater than the pressure on the inside of the bottle the egg is forced into the bottle.

#### Eggstension:

You can do a similar demonstration by putting a lighted piece of paper in the bottle. This warms the air in the bottle which causes it to be less dense. When it cools it takes up less space.

You can remove the egg from the bottle using the same process in reverse. Hold the bottle upside down and blow into the bottle for about 30 seconds. Seal your lips around the mouth of the bottle when you do this. Blowing into the bottle increases the pressure on the inside of the bottle and forces the egg out. 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.



Our next major event that Praxis is involved with is the Kiwanis Regional South East Alberta Science Fair on March 24<sup>th</sup>. For more information check out our Praxis website and their website at: <http://www.seab-sciencefair.com/>

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