

OH WOW!

Bouncy Eggs

Materials :

- Eggs (unboiled)
- Clear container or jars
- White distilled vinegar
- Food coloring

Procedures :

1. Fill each jar or container approximately $\frac{1}{2}$ full with vinegar
2. Add food coloring to each jar
3. Place a raw egg inside of each jar. Be gentle, you don't want to crack them
4. Leave the eggs to sit in the jar for around 48 hours
 - a. Wait until the top water surface has a scum-like film. This tells us the eggs are ready to be removed from the jar
5. Carefully remove the eggs from the jars
6. Rinse each egg in water
7. Test the rubber eggs by softly rolling and bouncing them!

The Science Behind It :

This rubber egg science experiment completely removes eggs from their hard shells. Vinegar is acidic, and the acid eats through the calcium shell. This leaves a membrane, or thin layer, to hold the inside of the egg in place. This membrane is textured to feel like rubber, which makes the bouncy egg! The yolk will remain yellow because of its high levels of proteins, which protects it from the food coloring.

Extensions and Challenges :



Rainbow
Rubber Eggs Science



1. Will the eggs change color without using vinegar?
2. What happens if you put your bouncy egg in salt?
3. Try different liquids! What happens if you leave a raw egg in soda? Milk? Water and baking soda? Coffee? Oil?
4. Investigate the inside of the bouncy egg! Break open one of the bouncy eggs? What does it look like? Is there still an egg yolk?
5. Bounce your egg on different surfaces! Where does the egg bounce the most? Try tables, hardwood floors, or even outside!
6. What happens if you shine a light under your rubber egg?

Additional Resources :

1. <https://www.steamsational.com/rainbow-naked-eggs-experiment/>
2. <https://www.youtube.com/watch?v=ttScvAhREAk>
3. <https://www.stevespanglerscience.com/lab/experiments/naked-egg-experiment/>
4. <https://littlebinsforlittlehands.com/naked-egg-experiment-rubber-egg-science/>