

# The Bouncy Egg Project

T47

# PURPOSE & HYPOTHESIS

Is an egg bouncier in water, soda, lemonade or vinegar?

I think if you put the egg in lemonade for 4 days it will be bouncier than the other liquids.

# RESEARCH

I searched in youtube different videos about eggs in vinegar as well as bouncy eggs projects.

I learned that the membrane held de egg together because it is strong.

# MATERIALS

Vinegar, soda, water, lemonade, eight cups, eight eggs, ruler, measuring cup

# EXPERIMENT

My experiment is, first I put the egg in one cup of liquid and the liquids are lemonade, water, soda and vinegar, then I left them in the refrigerator with a cap on for 24 hours, and after word , I did it again for 96 hours. After that, I dropped the egg from a height of 7 inches and measured how high it bounced. I put the eggs in the refrigerator so they would stay the same temperature because I'm doing two different time periods.

# PHOTOS

Soda:



# PHOTOS

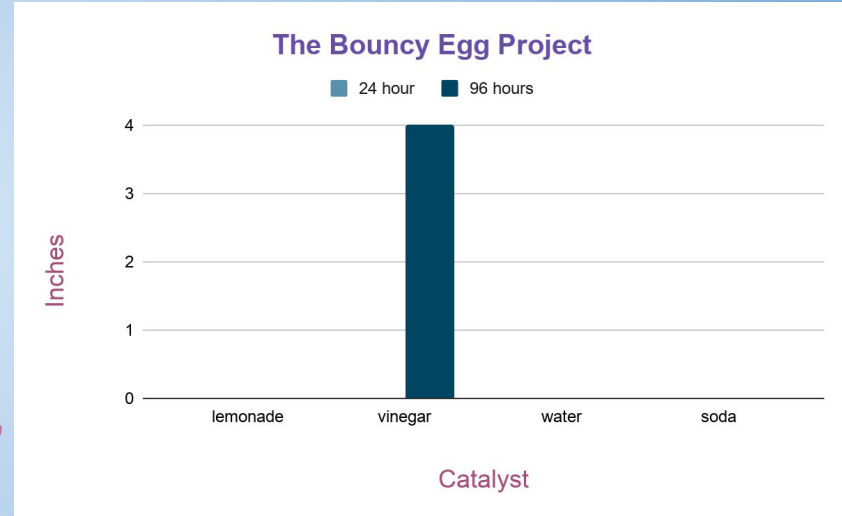
Vinegar:



# ANALYSIS

I measured a cup of liquid, and then put the egg in it for 24 hours. I put it in at 4:30 pm, and took it out the next day at 4:30 pm.

When I put the eggs in liquid for 96 hours, I put them in at 4:50 pm, and took them out 96 hours later at 4:50 pm. As the table shows, only the egg in vinegar for 96 hours bounced, and it bounced 4 inches.





# CONCLUSION

My hypothesis was incorrect. The egg in lemonade did not bounce when I put it in for 24 hours or 96 hours; but when I put the egg in vinegar for 96 hours it bounced 4 inches.

This happened because the acid in the vinegar broke down the egg shell but the membrane still held the egg together because it is strong but if you drop it from a high height it can break. The lemonade had acid but less than the vinegar, if you put the egg in lemonade you would have to leave it in there longer.

# REAL WORLD CONNECTION

Junk food has acid and if you eat too much of it, it can hurt your stomach and your doctor will give you a medicine that has base that will help your stomach.

# WORKS CITED

How to make a bouncy egg - cool science for kids

STEM at Home: Bouncy Egg Experiment

[Kiwico Bouncy Egg](#)