

IT'S NOT
MAGIC
IT'S
SCIENCE



**SUPER EGG
EXPERIMENT GUIDE**

EXPERIMENT

Fun experiments disguised as
a magic tricks!

EXPLANATION

Discover the science behind
the magic!

EXPLORATION

Bring the "magic" to life with
real world applications!

IN PARTNERSHIP WITH

SHPE
NOCHE de
CIENCIAS™

Interactive “family science nights” for high school students and families bring STEM to life. Imagine yourself in different STEM careers and discover what excites you. All the while, your parents learn how to support you in achieving these new found ambitions.



Diana Mogena
Industrial Engineer
SHPE Professional



Jay Flores
Mechanical Engineer
SHPE Lifetime Member
@JayFloresInspires

CONTENTS

Super Egg

EXPERIMENT PREPARATION - PAGE 3

This is everything you will need in order to make the "magic" happen!

EXPERIMENT INSTRUCTIONS - PAGE 4

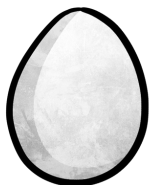
Now that you've gathered all your materials we will guide you through the process to bring the science magic to life!

EXPLANATION - PAGE 5

Wow that was cool! Now let's learn how it works.

EXPLORATION - PAGE 6

Now that you know the science behind the magic it's your turn to share cool ideas of how we can use it to make the world a better or cooler place!



EXPERIMENT

Super Egg

MATERIALS

Cup or "[It's Not Magic, It's Science](#)" Mug

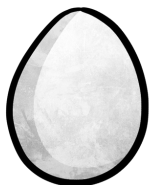
Vinegar

Egg



WATCH (OPTIONAL)

Scan the QR Code below or visit www.jayfloresinspires.com/blog/magicsciencekit to watch "It's Not Magic, It's Science" hosts Jay Flores and Diana Mogená conduct the Super Egg experiment!



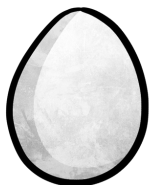
EXPERIMENT

Super Egg

INSTRUCTIONS

1. Gather all of your materials from the equipment list and set up a safe space to conduct the experiment
2. Place an egg into your "It's Not Magic, It's Science" cup and pour 1 cup of vinegar into your cup so that the egg is covered
3. Leave the egg in the vinegar for 24 hours (you will notice some bubbles from the reaction)
4. Remove the egg from the cup and prepare to drop it onto a surface that's easy to clean
5. Starting from 2 inches drop the egg and watch it bounce! Keep increasing the height until the egg breaks
6. Remind everyone that "It's Not Magic, It's Science!"

Tip: Since this experiment requires a long prep time you may want to prepare more than one egg in case if something goes wrong



EXPLANATION

Super Egg

"MAGIC" REVEAL - HOW IT WORKS

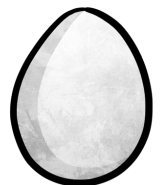
We hope you enjoyed our Super Egg experiment! You were able to "magically" make an egg bounce!

So how did we do it? Remember, it's not magic, it's science! Your super egg looks even weaker than a regular egg but it's able to survive the drop.

The vinegar you poured on the egg reacts with the eggshell. This reaction causes the eggshell which is made of calcium carbonate to dissolve in the acetic acid of the vinegar leaving only a thin membrane that keeps the egg together. Unlike the eggshell this membrane will bounce! You may have also noticed that the egg grew in size. That's because the membrane allows some small molecules to pass through. Try adding food coloring the next time you conduct the experiment to see if the egg will change colors!

BRING THE "MAGIC" TO LIFE

Now that you know the science behind the magic how do you think we can apply this science to solve real life problems? Use the following exploration pages to start bringing your ideas to life!



ABOUT SHPE

Organization Overview

SHPE is the nation's largest association dedicated to fostering Hispanic leadership in the STEM field.

Mission

SHPE changes lives by empowering the Hispanic community to realize its fullest potential and to impact the world through STEM awareness, access, support, and development.

Vision

SHPE's vision is a world where Hispanics are highly valued and influential as the leading innovators, scientists, mathematicians, and engineers.

SHPE Jr.

Starting early is the key to successfully exploring a future in Science, Technology, Engineering or Mathematics. If you're a high school student, and you think STEM might be the path for you, join a SHPE Jr. Chapter today. If your school doesn't have one, let's start one together!

