

# SCIENCE FUN AT HOME



Have some fun at home with these science activities from **Science Sparks** and the **Primary Science Teaching Trust**



**BEFORE YOU START!** Please read through this with an adult:

- \* Make sure you have read the 'IMPORTANT NOTICE' on the back of this page.
- \* If you have a space outside that you can use safely, then you can do the 'Try this outdoors' activity outside. Don't worry if not as you could still do it indoors.
- \* Talk to your adult about sharing the science you have done and if they want to share on social media, please tag [@ScienceSparks](#) and [@pstt\\_whyhow](#) and use [#ScienceFromHome](#)

## EGG-CITING SCIENCE

### 1 TRY THIS INDOORS ... FLOATING EGG

Fill the small bowl with water nearly to the top. Gently drop the egg into the bowl and watch it sink. Take the egg out and stir a big spoonful of salt to the water. Put the egg back to see if it still sinks. Keep adding spoons of salt to the water until the egg floats. You might need to keep stirring a while to get the salt to dissolve.

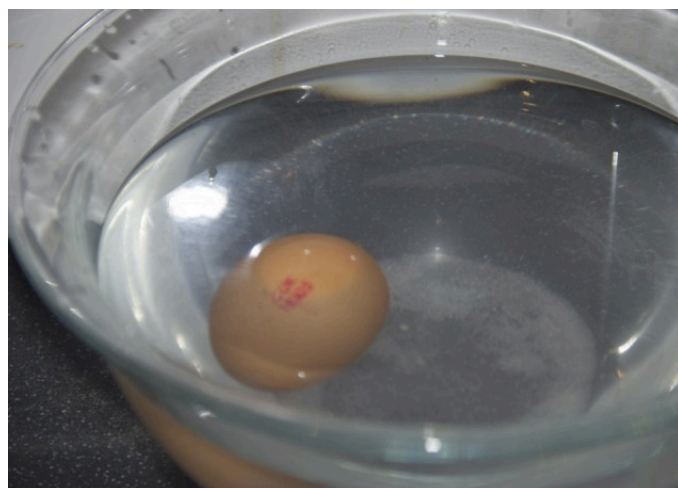
#### You will need

- \* Raw egg
- \* Small bowl
- \* Water
- \* Salt
- \* Boiled Egg
- \* Tape, bubble wrap, cotton wool, small boxes, card and other recyclable items

#### WHAT DO YOU NOTICE?

##### Things to talk about ...

How many spoons of salt did you need to add until the egg floated? Try pouring your salty water into the bottom half of a tall thin container (ideally made of clear plastic – a water bottle with the top cut off works well) and then very carefully pour plain water on top – what happens when you put the egg in?



## 2 TRY THIS OUTDOORS ... EGG DROP

Design and build a container to protect an egg when you drop it. Look through your materials and decide what will make the best protection. Ask an adult to help you drop the egg and container from high up. After it has dropped, open it up and check the egg to see if it's damaged. *Remember to use a boiled egg so it can be eaten afterwards.*

### WHAT DO YOU NOTICE?

#### Things to talk about ...

If your egg was damaged after dropping think about how to improve the design of your container. Does it need more padding? If your egg survived the fall with no cracks try it again with a smaller container. What's the smallest container you can build which still protects the egg?



## 3

### WHAT IS THE SCIENCE?

**EGG DROP:** There are two main ways to protect the egg. You can slow the fall or cushion the egg from the impact with the ground. Making a parachute (or even wings) is a good way to slow the fall. Or, by adding different protective materials to the container, you can protect the egg as it hits the ground.

**FLOATING EGG:** Objects sink in water when they are more dense than the water. Salty water is more dense than plain water: the more salty, the more dense. Once the water is salty enough it will be more dense than the egg, so the egg will then float.

## 4

### MORE ACTIVITIES YOU COULD TRY

**TRY A PARACHUTE EGG DROP** <https://www.science-sparks.com/gravity-and-air-resistance/>  
**OR AN EGG STEM CHALLENGE EGG** <https://www.science-sparks.com/easter-stem-challenges/>

**WHICH DO YOU THINK WILL FALL MORE QUICKLY, A BASEBALL OR GOLF BALL?**  
<https://wowscience.co.uk/resource/falling-for-science/>

**HOW CAN YOU TELL THE DIFFERENCE BETWEEN A RAW AND A COOKED EGG?**  
<https://www.pinterest.cl/pin/284360163947177603/> AND <https://mocomi.com/raw-boiled-egg-spinning/>

**TAKE A SCIENCE SELFIE!** Maybe you could show other people what you have been doing?

**IMPORTANT NOTICE:** Science Sparks and The Primary Science Teaching Trust are not liable for the actions of activity of any person who uses the information in this resource or in any of the suggested further resources. Science Sparks and The Primary Science Teaching Trust assume no liability with regard to injuries or damage to property that may occur as a result of using the information and carrying out the practical activities contained in this resource or in any of the suggested further resources.

These activities are designed to be carried out by children working with a parent, guardian or other appropriate adult. The adult involved is fully responsible for ensuring that the activities are carried out safely.