

**3rd & 4th Class
Science**



Gravity



In today's lesson, Múinteoir John taught us about gravity and how we can protect an egg from smashing to the floor.

Gravity is a powerful force and it's the reason why everything falls to the ground when we drop it. Without gravity, we would float away!

But there are ways to reduce the impact of gravity and today's "eggcellent" activity will show you how!



Activity 1

Save the egg!

Using construction and creativity, we are going to try and drop an egg without it breaking.

We are going to make a parachute for the egg. Parachutes lessens the impact of gravity and are an excellent way of dropping things from the sky safely. Even spaceships use parachutes to land safely.



We are going to see what is the best design for protecting the egg.

Get your thinking caps on! There is a list of items below that you can use in your design but you don't think all the items. This is where you can be creative!

What you will need: Some help from an adult, a boiled egg, cotton wool, a plastic bag, bubble wrap, play doh, sellotape, plastic straws, cushion, string, cardboard box.



Activity 1

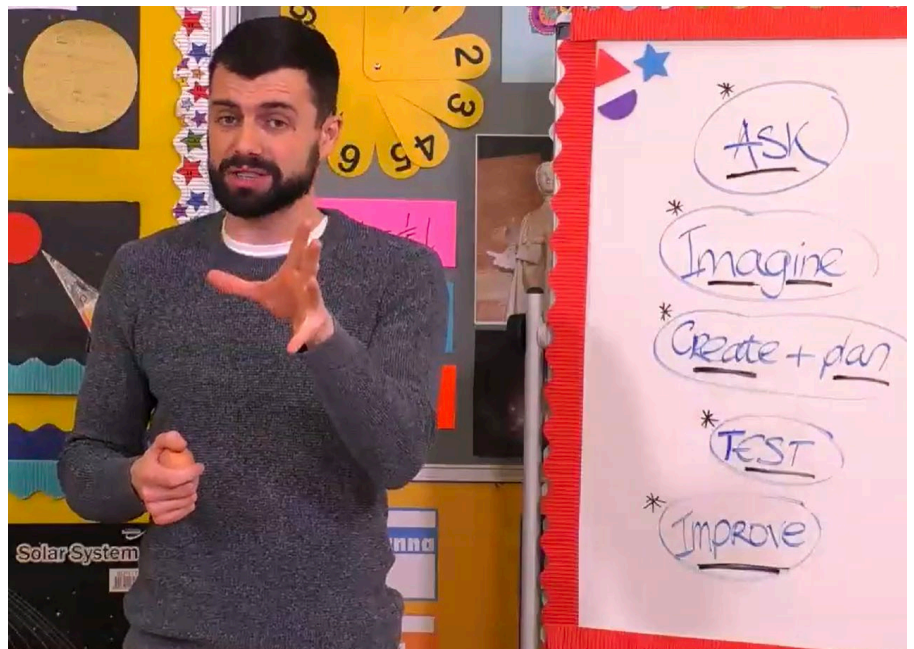
Save the egg!

Rules: There are only two rules.

Rule1: The egg must be boiled. Ask an adult to boil an egg for you and then let it cool down. If you don't boil, you may get egg everywhere if it breaks!

Rule 2: The egg must be dropped from the same height every time. This means we can compare the designs fairly.

Step 1: As we are engineers today, remember we have to think about the topics on Múinteoir John's board. Ask what we need to do, imagine some answers, create and plan, test and improve!



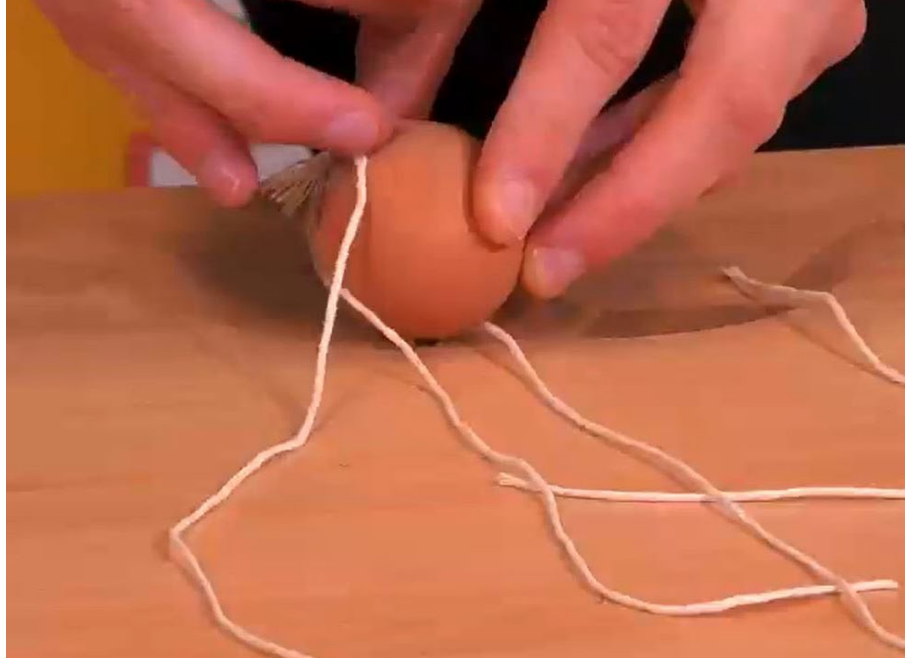
Step 2: Make the egg parachute using sellotape, string, a plastic bag and the egg.

Using the sellotape, tape four pieces of string to the egg.

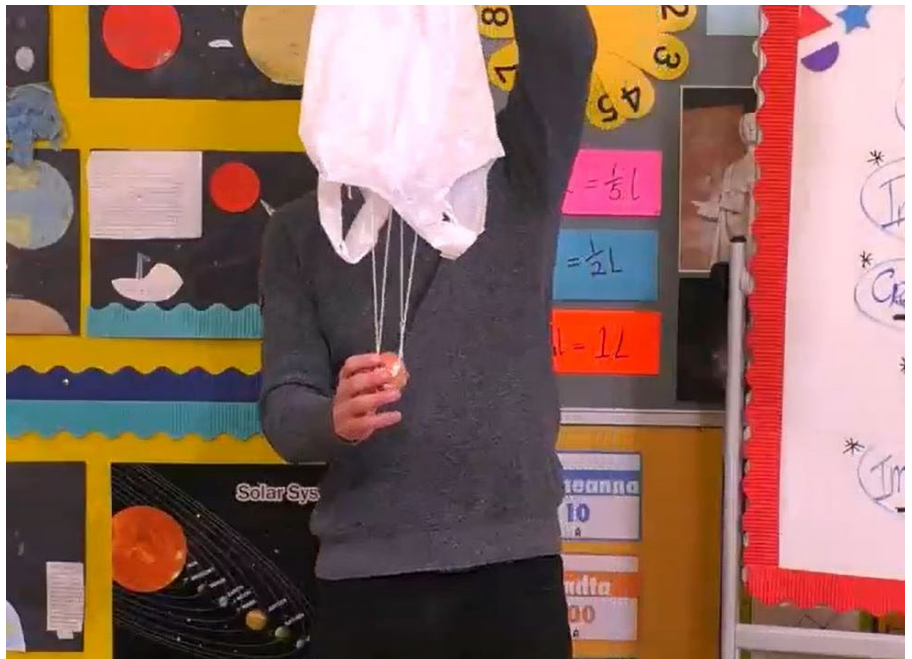


Activity 1

Save the egg!



Step 2: Attach the strings to the plastic bag using sellotape.



Step 3: Test - Drop the parachute!



Activity 1

Save the egg!

Múinteoir John is very tall! He is at least six foot!



Step 4: Improve!

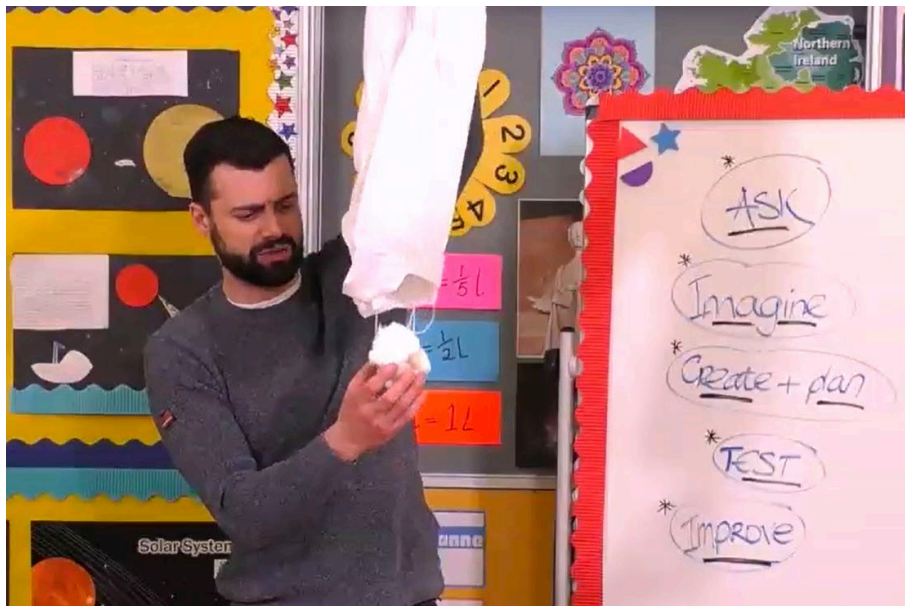
If your egg was like Múinteoir John's, it probably cracked! Let's think how we can improve our design to stop the egg cracking. One way, is to cushion the egg for when it hits the ground.

Múinteoir John covered his egg with cotton wool using some glue and repeated the test.



Activity 1

Save the egg!



Step 5: Now it's your turn to try different materials and designs. Would bubble wrap keep the egg safe? How about popcorn?

This is what engineers do all the time, they think about a problem and come up with solutions before testing them.

Remember ask an adult before you go dropping eggs all over the place. Make sure they are cooked and when cooking, ask a grown up to do it!



Activity 2

Colouring Space

Did you know that gravity is different on other planets in the solar system and the moon? For example, you could jump six times as high on the moon than the earth as the gravity is weaker!

On Pluto you could jump over 7 metres!

Colour in the picture below and draw yourself jumping on the planets!

