

# Safely supporting an egg's descent from height.

1-2  
HOURS

### Materials

- › Paper
- › An Egg
- › Tape
- › A first floor window or balcony (and a safe space below them)



### Activity Overview

- › Since the beginning of time, humanity has tried to combat the effect of gravity through flight and other methods. One method that has been used and perfected over the years is the use of a parachute to generate air resistance on a huge scale and slow the speed towards the earth's surface due to gravity.
- › Complete the experiment below to see if you can create a suitable solution to prevent an egg from breaking when it is dropped from height.

### Activity Plan

- › Create a method to transport and protect the egg so that it doesn't break when it's dropped from a height of 5 meters or more. Think about how you package the egg up, if a parachute would help, and what other methods might stop the egg from cracking.
- › Now test it out. Drop the contraption from your window or balcony (ensuring it will not hit anyone below!) and then check to see if the egg survived without cracking.
- › Did your contraption work? Why not have another go and see if you can do any better.

### Learning Objective

Understand what parachutes do and how they slow down the effects of gravity. Create the best one for your egg!



### Reflection Questions

- › Is there anything you could have done better to achieve a smoother landing?
- › Is there anything you think could be improved on your parachute to ensure the egg is comfortable and does not break?



## Why parachutes are so important.

Babcock maintains military parachutes at various sites across the UK. Some aircraft have parachutes built into the ejection seats, such as the Hawk T2, whilst in others, such as the Grob 120, the students and instructors must wear a parachute. In cases of emergency, these vital pieces of kit allow pilots to vacate an aircraft and land safely on the ground.

Parachutes work by propelling the pilots away from the aircraft using rockets, it then controls their descent by opening, allowing them to safely return to earth in a controlled way.



Just like everything else relating to the aircraft, these require maintaining to ensure that in the event of an ejection, the pilot and instructor are not harmed or injured. It is part of our job to service and maintain these lifesaving bits of kit for the military and we take this job very seriously.

Did you know that a pilot is only allowed to eject from an aircraft a certain amount of times before they are not allowed to fly again?  
Every time you eject, the pressure created reduces your height!