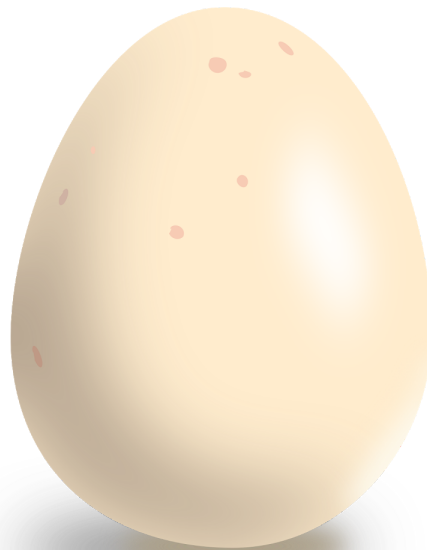


## Egg Drop

Gravity pulls everything to the ground at the same force, 9.8 meters per second. If you have 2 identical water bottles except one is full and one is empty and you drop them from the same height at the same time, they will hit the ground at the exact same time. Why? Because the force of gravity is pulling the objects at the same rate. Why do parachutes work? They create a resistance to gravity. Why do airplanes and cars slow down before stopping to create less of an impact? Why do we have safety equipment, to try and prevent injury?

In this activity children become engineers. They need to create a package they can drop an egg from one story high and see if it survives without breaking. Gravity pulls everything down to earth but can you create a package for an egg to survive a fall? You can use plastic bags, containers, packing material, string, tape. Use any material that is lying around your house that you don't want to keep. Once the package is created let it drop. Did it survive? If so, can you make a container with less material and still have it survive. If not, how can you tweak your design to make it work?

Use the following page to help you plan your package.



# Egg Drop Challenge

**Objective:** Design a system to protect an egg from cracking or breaking from a high fall.

**Materials:** Use anything you'd like! Some ideas include: paper towels, straws, tape, cardboard tubes, paper, popsicle sticks, baggies or old boxes.

**Illustrate your design in the box.**



**Explain why you think your design will protect an egg from breaking from a fall:**

---

---

---

---