

The Great Egg Drop Challenge!



Objective:

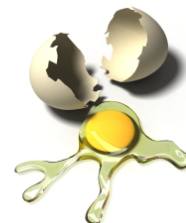
The project is two-fold. First, YOU are to plan, design and build a vehicle that will protect a passenger (egg) from harm during a collision with the ground. Secondly, you are to produce a presentation about your project to present to the class.

The Guidelines

- ✿ This is an individual effort. You may work on it at home and **MUST** work on it at school during lab days
- ✿ The egg will be a raw large Grade A chicken egg.
- ✿ You must supply your own test eggs. (Prepared properly they will make great omelets)
- ✿ You will be given one egg the day of the contest.
- ✿ No foreign substance(s) may be applied to the eggshell.
No glue, no epoxy, no paint, resin, no stickers etc.
- ✿ Nothing may be permanently attached to the egg.
- ✿ No substance may be molded to form a “pod” or capsule around the egg.
No peanut butter, no jelly, no gelation etc.
- ✿ Your vehicle’s empty mass must be 200.0 grams or less.
- ✿ Your vehicle must not be larger than 30.0 cm x 30.0 cm x 30.0 cm.
- ✿ Your vehicle **MUST** free-fall to the ground. No parachutes, wings or propellers of any kind.
- ✿ No inflated balloons, no bubble wrap, no Styrofoam or similar substances.
- ✿ Your vehicle shall be designed to withstand a fall from a **minimum** height of **one meter**.

Attention

Egg shell **integrity** must be proven to be **uncompromised** after impact. So, you must remove the egg from the vehicle to prove it. There can be no cracks or holes of any kind.



Materials for Construction:

Toothpicks (wooden only)	no limit (standard 2 mm x 65 mm)
Soda straws (plastic only)	30 straws (standard size)
Pipe cleaners	5 stems (30 cm each)
Glue (including hot glue)	Glue sticks may NOT be used for structure
Clothes hanger	1 regular size wire clothes hanger
Plastic wrap	1 30.5 cm by 30,5 cm sheet
String (no rope or twine)	No more than 62 cm
Balloons	1 - 9" or smaller
Paper cups (bathroom)	10 - 88.7 mL
Cotton balls	10 regular sized white
Rice	½ cup uncooked white rice



**No other type of material is allowed
without prior permission.**

Notes:

Egg Drop Point Distribution

The Project is worth 100 points

A completed vehicle designed and constructed according to specifications and delivered on time will earn 70 points. If, for any reason, the device does not meet any of the specifications or the delivery date, the device will not be tested and you will receive 65 points.

- 🌸 An overweight vehicle will be disqualified but must still pass the one meter test for credit.
- 🌸 An egg surviving a one meter fall shall earn five (5) points.
- 🌸 An egg surviving a fall from a height of two meters shall earn five (5) points.
- 🌸 An egg surviving a fall from a height of three meters shall earn ten (10) points .

Extra Credit

Extra credit may be earned in the following categories:

- 🌸 The lightest successful vehicle will receive five (5) points
- 🌸 Best aesthetic design (5, 4 and 3 points for 1st three (3) places)
- 🌸 Most spectacular crash (5 points awarded to two (2) vehicles)

"Great things are NOT accomplished by those who yield to trends and fads and popular opinion."

- Jack Kerouac