



# EGG DROP

## Description:

The objective is to have a two-person team construct a device to protect an egg (from breaking) that will be dropped free fall from specified heights selected by the event coordinator.

Number of Participants: 2

Approximate Time: 30 minutes

## The Competition:

1. On the day of the competition, all teams will be given an identical bag that contains the materials needed to construct the device that will hold a raw egg provided by the event coordinator. The baggie itself is NOT an item to be used to construct the egg holder, only the items in the bag may be used as well as 20 cm of tape.
2. Teams will be given 25 minutes to construct the device that protects the egg. The device (egg-holder) can be any size as long as it uses only the items found within the baggie. Not all items have to be utilized. The egg does NOT have to come out of the holder at any time during the competition, BUT at least 25 % of the egg surface must be visible at all times for inspection of cracks or egg fluid seepage.
3. After the 25 minutes of construction, teams will be assigned specific drop times based on their team number. Teams will be given 3 minutes to drop their egg from pre-determined heights. Heights are determined by event coordinator, but must be between 10 centimeters and 6 meters in height. Grade A, supervisor-inspected eggs will be provided by the event coordinator during the time of construction. One egg per team will be used. The event coordinator will use stairs or a ladder to elevate students to the specified drop heights. One student from each team shall drop their egg from the specified drop heights. Teams will continue to drop their egg from higher and higher specified heights until their egg cracks or outright breaks.
4. The possible bags that the students could use are:

| <b>Bag #1</b>     | <b>Bag #2</b>   | <b>Bag #3</b> |
|-------------------|-----------------|---------------|
| Toothpicks        | Bubble Wrap     | Sponge        |
| Straws            | Popsicle Sticks | Cotton Balls  |
| Cloth and/or Sock | Clay            | Hay           |
| Rubber Bands      | Kitty Litter    | Toilet Paper  |
| Paper Clips       | Q-Tips          | Rubber Bands  |

## Scoring:

Eggs that do not break or show cracks will be ranked first. Those that break or crack will be ranked after those that do not. The farthest distance dropped (highest height) will determine the score. In case of a tie in drop heights, the time it took for teams to create and build their device (egg-holder) and submit to event coordinator will determine rank. Shortest time to build device is the tie-breaker.