

Name: \_\_\_\_\_

Date: \_\_\_\_\_

MCHS Honors Physics 2013-2014

## **Egg Drop Project**

**Challenge:** Create container that will catch a raw egg and prevent it from breaking.

### **Requirements:**

1. The container must meet be no taller than 50cm in width, length, or height.
2. The container cannot be made out of glass.
3. All sub component parts of the container must remain inside the container during and after the drop. A drop that fails to contain its materials will be given a score of zero for that trial.

### **Competition:**

1. Eggs will be dropped from heights not to exceed 4 meters.
2. All participants must wear safety goggles at drop time. Goggles will be provided.
3. Members will be responsible for centering their platform below the drop site. A plumb line will be provided to help members center their containers.
4. Members will choose the drop height for each trial. Teams may complete both trials from the same height or select different heights for each trial. The best score will be considered for the final team score.
5. Members will be responsible for dropping their egg.
6. Each team will be allowed 2 trials.
7. Grade A Large eggs will be provided. Groups will be allowed to choose their egg from those provided. Once the egg has been selected, members are responsible for the egg from that point on. If the egg breaks before the drop is completed, one additional egg will be provided and 10 points will be deducted from the final score. A team may receive no more than two eggs for each trial.

### **Scoring:**

1. All containers will be measured on the day of the trial. Length, width, and height measurements will be taken from the highest or widest points.
2. Drops that result in broken eggs will receive a zero score. Eggs are considered broken if they leave a wet spot on a paper towel.
3. Scores will be calculated by dividing the height of the drop point by the height of the container.
4. The highest score will be declared the winner.

Name: \_\_\_\_\_

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## Naked Egg Drop Score Sheet

Group Member Name(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Container Measurements:

L = \_\_\_\_\_ cm

W = \_\_\_\_\_ cm

H = \_\_\_\_\_ cm

Are the materials used OK? Yes or No

Trial 1:  Egg is not broken

Egg is broken

Drop Height = \_\_\_\_\_ cm

Score\* = \_\_\_\_\_ pts.

Trial 2:  Egg is not broken

Egg is broken

Drop Height = \_\_\_\_\_ cm

Score\* = \_\_\_\_\_ pts.

\*Score calculated according to equation:  $Score = Drop\ Height \div Container\ Height$