

Egg Drop Challenge

Design and build a container for a raw chicken egg that can be thrown into the air from the top of the school and land on the ground without breaking the egg.

Rules:

- Each table will be given the same box of materials to use and only those materials may be used, but not everything in the box has to be used to build the device.
- Work together as a table
- The egg must be able to be loaded and removed easily from the container
- Score is calculated by multiplying longest length of container by mass in kilograms
 - If egg breaks score is zero
 - Lowest score above zero is winner
- Only teacher can go on roof and launch containers
- All messes must be cleaned up after trials or zeros will be given
- Calculate theoretical momentum and impulse for egg drop experiment and compare to actual results.
 - assume 0.1s for time of impact.
 - Use building height to calculate velocity just before impact
 - Mass container with egg in Kg
 - Calculate force in Newtons

Partner Names: _____

Mass of egg and container _____ kg

Velocity of container _____ m/s

Force _____ N

Momentum _____ kg.m/s

Impulse _____ N.s

Did egg survive? _____

Score _____