

Egg Drop Experiment



Objective:

Due Friday, January 30th

Your challenge is to design and build a container that will protect an egg from cracking when dropped from a significant height. The goal is to create a secure, protective structure using materials of your choice to keep the egg intact upon impact.

Materials: You can use any household or craft materials to create your container. Some suggestions include:

- ✓ Cotton balls, tissues, or bubble wrap (for cushioning)
- ✓ Straws, popsicle sticks, or toothpicks (for structural support)
- ✓ Plastic bags or string (for creating parachutes)
- ✓ Tape, glue, or rubber bands (for securing your design)
- ✓ Cardboard, foam, or paper (for creating the outer structure)

Feel free to think creatively and combine materials in unique ways!

Design Guidelines:

1. Opening: Your container must have an opening to insert the egg.
(I will provide the egg on "Egg Drop Day")
2. Security: Your container must securely hold the egg, so it won't fall out during the drop.
Consider creating a "seat" or "harness" for the egg within your structure.
3. Protection: The container should provide enough cushioning or shock absorption to prevent the egg from cracking on impact.
4. Compact and Manageable Size: The container should not exceed the size of a shoebox.
Keep the design lightweight for easier handling and testing.

Egg Drop Day:

1. On "Egg Drop Day" each student will receive an egg to place inside of their container.
2. Students will drop their containers (with the egg inside) from the top of the outdoor stairs (about 10 feet)
3. We will then check to see if the egg "survived the fall" and if your container provided protection from Earth's gravitational force.
4. If your egg did NOT survive the fall, your container will be disposed of (for obvious reasons—it will be covered in egg goop).

Examples:

