EGG DROP ACTIVITY

Introduction

You have the challenge to drop an egg without it breaking from a second story window. The only materials to protect this egg from its fate are toothpicks, straws, and other typical objects. It is up to you to create a protective barrier around the egg acting like a parachute.

Learning Objectives

1. An introduction to the principles of physics and understanding the design process (doing many trials based upon ideas and improving each time).
2. Be able to understand the following concepts: forces of gravity, drag, and air resistance. (Please cover this material separately)

Materials

1. Eggs
2. Toothpicks
3. Straws
4. String
5. Ballon
6. Sheet of paper
7. Hot glue
8. Popsicle sticks

Step-by-Step

1. Cover the introduction and show students the materials.
2. Time for students to draw sketches/ideas for a design. (You will know what time frame will be best for your class)
3. Open up materials for students to choose and gather after choosing their final design
    a. Note: designs should include the shape, materials, and how much of each material they intend to use
4. Create first design- teachers will provide eggs- for their first trial
5. Test out first design and have each student note what went wrong
6. Brainstorm how to fix design and recreate it with improvements.
7. Test final design!

Conclusion Qs

1. How did you use the design process to improve your design?

2. What materials did you use to prevent the egg from breaking? And why?

3. Define one of the following: gravity, drag, or air resistance.