

Egg Drop Strategies

By Bre Pettis

Update: I'll be testing firing contraptions this week, wait to build your egg drop safety container until after Friday so that you can see the firing contraption in the podcast. Rules may change at that time to accommodate something like a giant crossbow!

On February 13th, Brady and I will be hosting Ignite Seattle, a Maker/Geek event here in Seattle. We're going to be having an egg drop. You make an egg-safety device that is smaller than an 18" x 18" x 18" cube and less than 3 pounds. You bring it to the event at 6:30 PM at the CHAC upper level on February 13th and we'll put it in a giant slingshot and smash it against the wall. If you've done an egg drop event and have any advice for me, drop me a note in the comments!



You can make your own egg safety container on your own time or you can come and work on your design as early as 4:30 if you want. I'll have popsicle sticks, hot glue, and newspaper there for you to make your own. If you have any other ideas for supplies to have there, drop me a note in the comments and I'll see what I can do. No matter what, all building stops at 7:30 so that we can put the eggs into a giant sling shot made of a lot of surgical tubing and fire them at a (plastic protected) brick wall. No metal or glass allowed since we don't want to break the place.

Did you do an egg drop in school or have a brilliant idea for an egg cushioning device? If so, you can help out by uploading a picture of your cushioning strategy or drawing a diagram and upload it to the MAKE: flickr pool. I'll be putting some of these pictures in the Weekend Project podcast this weekend which will be all about egg drops and I may even try and use one of the uploaded strategies.

As if that wasn't enough, there will be 5 minute presentations through the rest of the night to spellbind and amuse you!

Egg drop experiment

Around the 5th, 6th or 7th grade you do an egg drop experiment in your science class or just a school function. This is a sure fire winner for the experiment!

What you'll need for this experiment:

- knife/scissors
- tape
- egg
- two plastic bags
- empty soda can



Successful Egg Drop Ideas

By Shellie Braeuner | eHow Contributor

Egg drop projects teach students to use logic and teamwork to protect their eggs from a fall. There are a variety of ways to conduct an egg



drop. Begin by explaining the process and handing out eggs to the students. Set the parameters of your egg drop and a deadline when your students must be ready to drop their eggs or go bust.



Container Designs

Many successful egg drop designs use sturdy containers to protect the contents from the initial shock of the drop. These hard containers may be plastic food containers or cardboard boxes. But the hard container alone is not enough to protect the egg completely. The container needs padding inside. Styrofoam, sponges, cotton balls, bubble wrap or even wadded newspaper can all make good padding inside the container. Give your students time to practice with a variety of materials before dropping their eggs.

Straw Designs

Straws have firm walls around an empty space. The firm walls act like the sturdy container, while the empty space provides shock absorption for the egg. Build a shape around the egg with the straws. Hold the straws in place with tape. Add padding between the straws and the egg. Another way to use straws is to design a framework that suspends the egg during the drop. The frame absorbs the shock, preventing the egg from coming in contact with the surface.



Plastic Bag Designs

A hard shell is not the only way to protect an egg during an egg drop. Plastic bags are less of a shell, but they provide a structure to hold padding material around the egg. Add padding such as foam, bubble wrap or packing peanuts between the egg and the side of a small plastic bag. Place the small bag into a medium-sized bag and add more padding around the small bag. Place both bags into a large plastic bag with additional padding around the medium bag.

Alternative Designs

Try limiting your class to specific groups of materials such as ensuring that all padding is edible. Try using cereals such as puffed rice or wheat as padding. Fruit is another option. Use grapes, cherry tomatoes or orange wedges between the egg and the side of the box or container. The fluid-filled cells work in a similar way to the air-filled bladders of bubble wrap. Consider that the egg must drop but is not required to hit the ground. Insert the egg into panty hose or attach an egg-protecting container to a bungee cord to prevent the egg from hitting the ground. Suspend your egg from a helium-filled balloon or build a glider to deliver your egg to the ground.



References

- Science Ideas: Egg Drop Project Ideas
- University of Akron: The Egg Drop
- Davis Creek Elementary School: Egg Drop
- PBS Kids: Egg Drop

Read more: http://www.ehow.com/info_8424463_successful-egg-drop-ideas.html