

Egg drop essay sample



**ASSIGN
BUSTER**

The objective of our project was to design and build a contraption that would secure an egg from breaking upon impact from a second story window, and the contraption weighing as least as possible while falling the fastest. We wanted to design something that would provide a lot of cushioning directly to the egg, and also provide extra cushioning to weaken the impact. After testing and submitting a design of just bubble wrap around the egg we found out that it will not be allowed. Due to this we had to make changes in order to gain originality points and add to the creativity. After pondering for a few minutes we came up with the idea of putting the egg in a container of some material with cushioning, and then wrap the container in bubble wrap. This subtle change was enough to gain originality points and led us to the building stage.

During the building process we were strapped for materials, until we made a much needed trip to the store. At the house we tried to use a plastic ball and water to secure the egg before wrapping it in the bubble wrap. After failure we tried other materials but they never made the testing stage due to elimination. We went to ace hardware to look for materials that would hold the egg securely without breaking it. After searching for a while and scratching out ideas we found a two inch PVC pipe along with two one and a half inch test plugs that are water tight. At this point we still had the water idea to hold the egg inside the tubing. To keep the weight down we used cotton balls inside the tubing to keep the egg from coming in direct contact with the hard plastic, but instead with the soft cotton. With this idea secured we took it to the testing stage. After wrapping the egg in cotton and securing it in the plastic pipe we wrapped the pipe with bubble wrap a couple

of times by cutting up a two by three foot sheet of bubble wrap. This was then dropped from a second story balcony on concrete, after the unwrapping we were happy to find out that the egg survived.

In class on Friday we dropped our contraption, and this time after unwrapping we were unhappy to find out that the egg had been cracked. Since we thought that medium eggs were being used instead of large, we constructed our project around the medium egg. The large egg was too large to fit in the pipe and could not be wrapped in cotton, so the egg was in direct contact with the hard plastic sides. Since we thought this was the reason our egg had broken, we consulted with Mrs. Lovin to see if we could make changes. After her great generosity of letting us bring in our own medium size egg and redropping our design Tuesday we agreed. Since the medium egg is significantly smaller we were able to wrap the egg with cotton before inserting it into the plastic pipe.

After dropping it we were glad to find out that the egg did not break just as the tests had proved before. If I could change something about the project I would have used a bigger pipe, in order to fit large eggs, and try to use material that weighed less. We knew that all the materials would fall at the same speed, but by adding the extra weight we thought it would help it fall the extra hundredths of seconds in order to get a faster time. Time was more important than weight because it was worth more points but we did not expect to have the second heaviest design in the class. To reflect back on the project I was excited our design worked and thought our design and success reflects our hard work.