

Egg Drop!

The Guinness World Records tells us that the greatest height for an egg drop is 213m! How can you drop an egg without it breaking?



SCIENTISTS

Always have an adult to help you with your egg-speriments. And it is always wise to wash your hands after handling eggs and your other scientific equipment



EQUIPMENT CHECKLIST

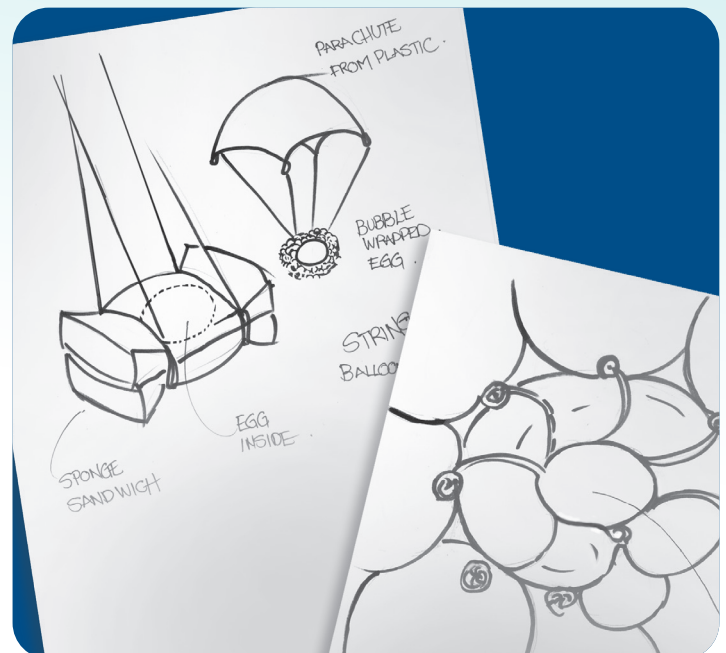
- fresh, raw eggs
- paper and a pencil or pen
- any other equipment necessary for your DIY design—items may include egg cartons, sheet plastic, bubble-wrap, duct tape, twine, balloons, straws... it's up to you!
- tape measure
- 1 large plastic sheet, such as disposable table cloth or large garbage bag



METHOD

STEP 1

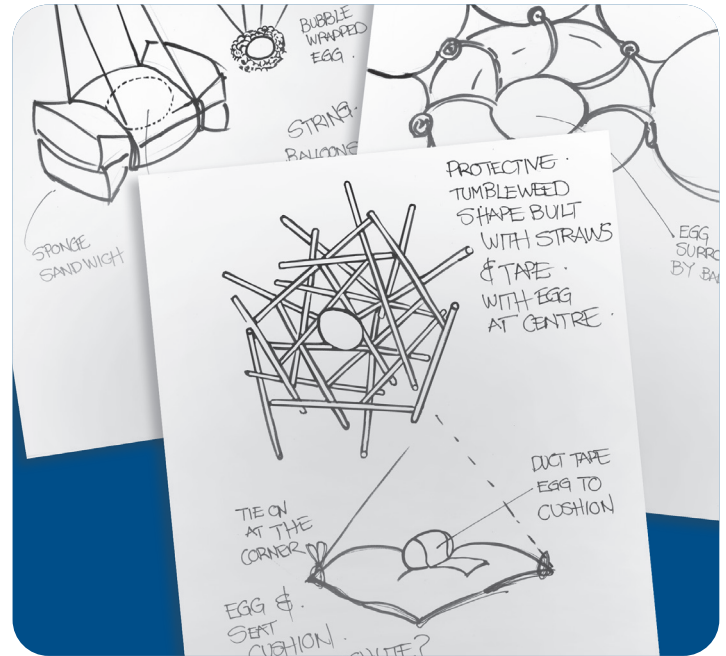
Design your craft: The objective is to design and build a “craft” to protect your egg from a long fall, and to see just how high you can go before your egg breaks! What is your hypothesis: Is it more important to cushion the landing or is it more important to slow the descent? Why? Draw your craft and write your reasons for the materials that you are choosing.



Egg Drop! continued

STEP 2

Build your craft: As you build, do you make any design changes? Do you switch to a different material than the one you originally chose? Why? Record any changes on your drawing.

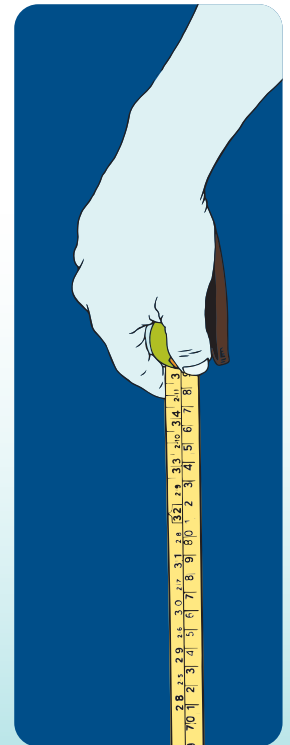
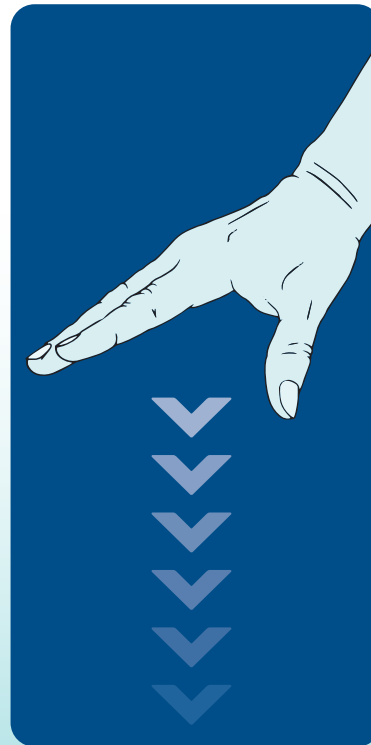


STEP 3

Drop your craft: Protect the floor or landing surface with the plastic sheet. Use your measuring tape to record the distance of your first drop (for example: half a metre).

STEP 4

Test the limit of your craft: Repeat Step 3, dropping your craft from increasing heights, measuring and recording each height. At what point does the craft split or fall apart? Does the egg crack or break?



RESULTS AND CONCLUSIONS

Re-assess your original design and think about how it could be improved. Did you hypothesize that cushioning the landing was more important than slowing the descent? Or vice versa? What would you change next time, and why?