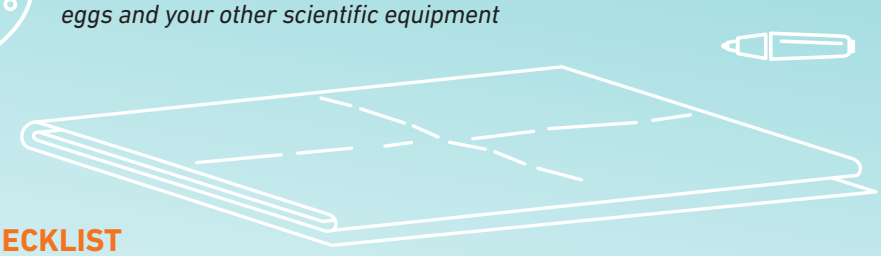
Egg Strength Test

How strong are eggs? Do you think you can stand on eggs without them 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



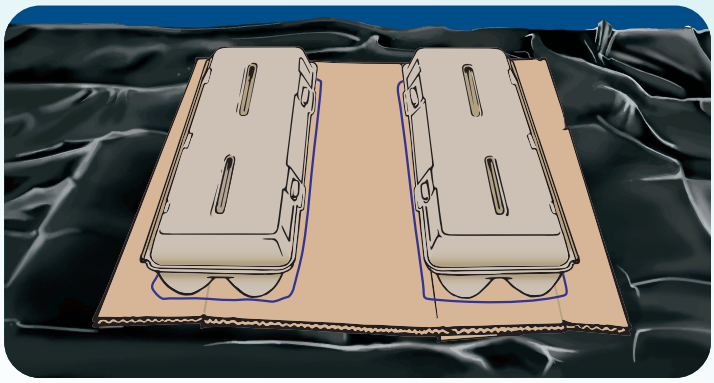
EQUIPMENT CHECKLIST

- ☐ 2 cartons of eggs—full with no eggs missing
- ☐ 1 large plastic sheet, such as disposable table cloth or large garbage bag
- ☐ large piece of cardboard, big enough to cover the cartons of eggs
- ☐ felt-tip pen

METHOD

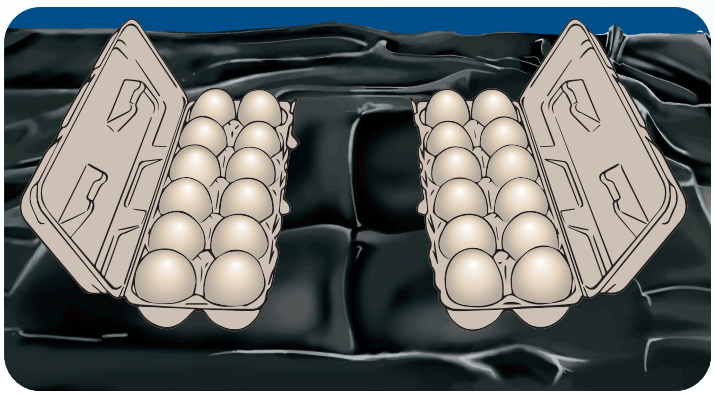
STEP 1

Lay the plastic sheet on the floor. Place the cardboard in the center, on top of the plastic. Place the two cartons of eggs side by side on the cardboard, about 10cm apart. Trace the outline of the cartons onto the cardboard with the felt tip pen. This is where you'll place your feet when you stand on the eggs.



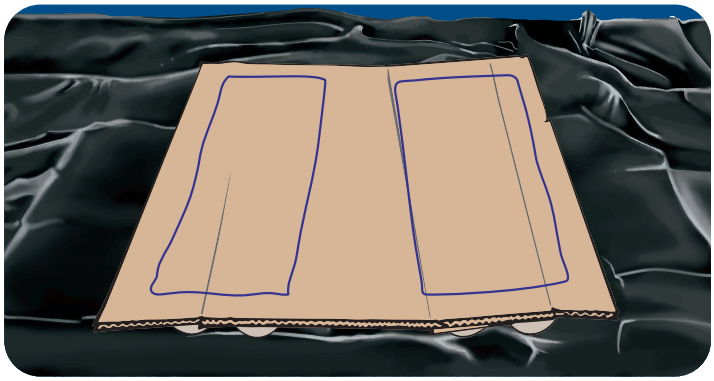
STEP 2

Remove the cardboard — keeping the cartons in the same position. Open the carton lids. Make sure that all the eggs are the same way up (so that all pointy ends or all round ends are up). Shut the carton lids

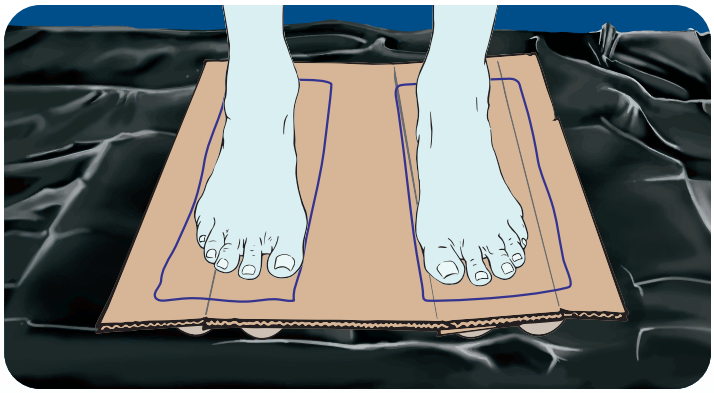


Egg Strength Test continued

STEP 3
Replace the cardboard in the correct position over the cartons of eggs with the outlines above the two cartons underneath. Take off your shoes and get ready to stand on the eggs.



STEP 4
Using your drawing as your guide, carefully and slowly step on to the cardboard above the eggs. Be sure to distribute your weight evenly across both the cartons — being slow and gentle is important, so ask the adult that is helping you to steady you as you step up.



STEP 5
After carefully stepping off, check both cartons of eggs to see whether any of them cracked.

RESULTS AND CONCLUSIONS

Eggshells are super strong! Why? Eggshells are made almost entirely of crystals of calcium-carbonate. What about their shape? They have no corners. Because they have an arch or dome at the top and the bottom, they do not break when pressure is evenly applied to both ends. However, they can break if hit at the side.

To think about: Do you know how hens make eggshell? Do you know where hens get calcium from? And, where do humans get calcium from?