

Force Experiment.

How strong is an eggshell?

You will need:

2 eggs

Books

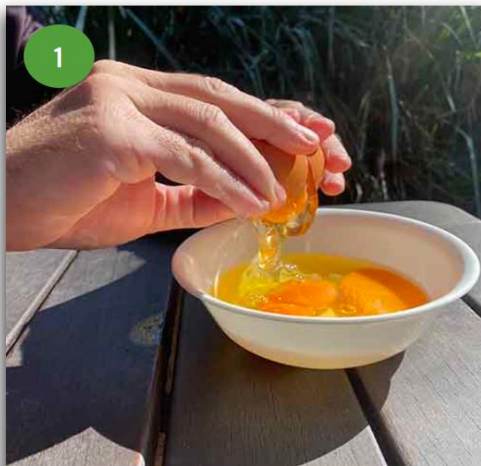
Scales (if you have access)

Eggshells are very strong if they are compressed. The curved shape of the eggshell allows the force to be spread horizontally and vertically throughout the shell.

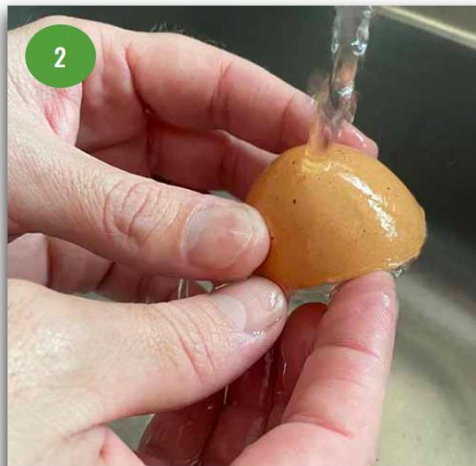
Record how many/ or the weight of the books you managed to place onto of the egg shells.

Possible variables to test:

- What happens if you add more eggshell halves to your experiment?
- Compare having 3 vs. 4 eggshell halves... does this hold a significantly greater weight?
- Try different types of eggs



Carefully crack the eggs into a bowl. Don't waste the egg contents, they are perfect for the [Baked Alaska activity](#) or simply for an extra [savory breakfast](#).



Wash the eggshells under running water and leave them to dry. You may want to trim the edges of the eggshells with scissors too.



Arrange your eggshells so that they can support your stack of books.



Gently place your first book onto the eggshells.

Extension: If you have access to some scales, this is a good chance to measure the mass of each book prior to adding them onto the stack.



Keep carefully adding books onto the eggshells... how many can they hold?



As long as you keep the books centred, they can support quite a bit of weight!