

## Pavlova

On SCOPE's Aussie Science episode, Elizabeth experiments with the very Aussie, Pavlova. She also mixes up the ingredients to see how it changes the end result. Here's how you can try it at home!



### What you need:

- Egg whites
- Salt
- Caster Sugar
- Mixing Bowl
- Electric Beaters
- Baking Tray
- Oven

### What to do:

1. Make the control of the experiment and bake some meringues straight from the recipe.
2. Separate the egg by cracking it open and dropping the *yolk* into the eggshell halves, while the egg *white* falls into the bowl.... This bit can be a bit tricky!
3. Then add in a pinch of salt, and whip up the mixture using some electric beaters.
4. Next add the sugar, a bit at a time. The sugar dissolves into the egg and gives the foam more strength.
5. Spoon the mixture onto a baking tray and now it's ready for the oven! But first we will try some variations.
6. You can try your own variations. Elizabeth made one with no salt, one with no sugar, and one with a bit of water added.
7. Write down which meringue is which, and then you put it in the oven on about 140 degree Celsius for about 40 minutes!



## What's happening:

When you beat eggs, air is added to the mixture, which becomes trapped in tiny bubbles, creating foam. The whisking also partially breaks down the egg proteins – in a process called denaturation. The salt is in there to add a bit of stability to the egg whites.

In the oven the air bubbles in the meringue expand, and the proteins bunch up in random patterns HOPEFULLY resulting in a light puffy mesh of sugar and protein.

How did Elizabeth's variations turn out? The one with water didn't maintain its height and went a bit flat in the oven, the one without salt was quite thin and crumbly and the one without sugar looked like baked scrambled eggs.

