

## Tarnishing Silver Experiment

On SCOPE's Silver episode, Elizabeth experimented with speed tarnishing silver. Here's how you can try it at home!



### What you need:

Foods high in sulphur – which are generally those with a lot of protein including eggs, meat, legumes, many vegetables, onions and garlic

We used: egg yolks, garlic and onions

Zip lock bags

Silver that can be tarnished

We used: cutlery

### What to do:

1. To start with place the onions, garlic and egg yolks into separate plastic bags
2. Then place your silver sample into each bag and zip lock it shut. Keep one piece of silver separate to compare the results later (your control).
3. Then put it in a safe place to stay for several hours or even overnight.
4. Every now and then, turn over the bag so all the silver makes contact with the food.
5. Then open the bags and look at the result!
6. Do they look different to the control sample?

### What's happening:

Tarnished silver is actually a sign that the silver has undergone a chemical reaction! The silver reacts with sulphides in air (or in this case the food) to create a compound called silver sulphide. So to speed up the tarnishing process we used food that was high in sulphur which would hopefully increase the speed and intensity of the chemical reaction.

