

Jon Chase: Bacteria are a type of microorganism, each made up of just one cell. Some bacteria are harmful and cause disease, and some are useful, like the one hundred trillion bacterial cells that inhabit our digestive system.

Bacteria reproduce by cloning themselves through binary fission - a kind of asexual reproduction. In the right conditions, they can reproduce very quickly. Some species can replicate themselves in as little as twenty minutes. We can grow bacteria in an incubator on plates of agar jelly with time, nutrients, and an optimum temperature.

These girls at Copthall wanted to investigate the bacteria growing on their possessions. They took some petri dishes, and they swabbed some of their stuff, and put them in an incubator set at just under 30-degrees-centigrade to help them grow. Two days have passed since we put the agar plates inside the incubator. So let's have a look at what's been grown.

With any scientific experiment, you need some kind of control, don't you?

Students: Yeah.

Jon Chase: So, here was our control, here.

Wooh! Nothing at all. Brilliant. So there's proof that if you just shut one by itself, you'd have no bacteria. What have we got here? Headphones! A few speckles here and there.

Student: That's been in my ear.

Jon Chase: Well, that's not too bad.

Student: It is!

Jon Chase: You've got a few different microorganisms on there. Earrings!

[STUDENTS GASP IN DISGUST]

You know what, I'm glad I don't wear earrings you know. So there's a lovely pattern been drawn in the earrings, and you can see the bacteria have grown in exactly the same place as your pattern. So everyday objects harbour all types of bacteria, and these can be grown in petri dishes with some surprising and rather revolting results, as shown with the help from the girls from Copthall School.

Jon Chase: OK, so two days have passed since we put the petri dishes... dishes?

So two days have passed since the petri dishes... Two days have passed since we put the agar plates inside the incubator.