

## Ice Cream Challenge

### Activity 1.3: Germ hunter

#### Safe ice cream is made with clean hands. Will yours pass the test?

Being food safe is the best way to banish bacteria for good and keep food healthy. Because sometimes, bacteria can live in places you wouldn't expect...

#### You'll need:

- 4 x agar petri dishes
- 4 x cotton swabs
- A sharpie or other marker
- Label stickers or masking tape
- Soap and water
- A warm storage area (eg, cupboard or shelf)

See what bacteria are lurking on different surfaces by taking samples, then watching the bacteria grow! You will sample four different surfaces:

- Unwashed hands
- Clean hands (washed with soap and water for 30 seconds)
- Door handle
- Clean kitchen utensil (eg spoon or bowl)

#### Predict

Follow the scientific inquiry process and make a prediction about what you think will happen.



Which sample do you think will grow the most bacteria? Why?

Which sample do you think will grow the least bacteria? Why?

## Test

See if your prediction is correct by testing it out!

### Label your petri dishes

Add a label sticker or some masking tape on top of each petri dish. Then, use your sharpie to label each dish with:

- The sample name (eg unwashed hands)
- Your rōpū name
- Today's date

### Collect your samples

- Using 1 cotton swab per sample, wipe the swab across the sample surface for 10 seconds
- Open the petri dish and gently wipe the swab across the agar in a zig-zag pattern
- Put the lid back on the petri dish – make sure you don't re-open this once it's sealed!
- Safely place your petri dishes in a warm storage area
- Wash your hands

## Explain

After 2–3 days, you should start to notice a change in your petri dishes. Using your observation skills, record what you learned from your tests.

Make sure you leave the petri dishes closed!



Which sample grew the most bacteria?

Blank space for recording observations.

Which sample grew the least bacteria?

Blank space for recording observations.

Was your prediction right? Why/why not?

Blank space for recording observations.

What do these tests tell you about bacteria and food safety?

Blank space for recording observations.