



GROWING BACTERIA

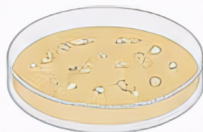
FROM DIFFERENT LOCATIONS IN YOUR HOME



Bacteria are all around us! In this experiment, you will collect samples from different places in your home and grow them to see where the most bacteria live.

OVERVIEW

You will collect samples from different household locations using sterile swabs, rub them on nutrient agar plates, and observe the bacterial growth over several days.



MATERIALS

- Agar plates (pre-poured, with lids)
- Sterile cotton swabs
- Masking tape or labels
- Marker
- Disposable gloves (optional)
- Notebook or lab sheet
- Camera or phone (optional)



SAFETY FIRST



- Wash your hands before and after handling the agar plates.
- Do not open the plates.
- Do not touch the inside of the plates or the swab tips.
- Keep plates away from young children, pets, and food.
- Dispose of plates by sealing them in a bag and placing them in the trash after your experiment.

PROCEDURE

1. Choose 4–6 different locations in your home to test (see ideas below).
2. Label the bottom of each agar plate with the location using tape and a marker.
3. Put on gloves if you have them.
4. Open a sterile swab package. Do not touch the tip.
5. Rub the swab over the chosen surface with gentle pressure. Use a different swab for each location.
6. Immediately streak the swab back and forth across the agar surface. Do not open the plate—just swab the top through the lid.
7. Place the plates in a warm, safe spot (room temperature is fine).
8. Observe and record your results for 3–5 days.

SAMPLE LOCATIONS – Ideas: Doorknob, Kitchen Counter, Faucet Handle, Light Switch, Remote Control, Phone Screen

PLATE #	LOCATION SAMPLED	DATE SAMPLED	OBSERVATIONS (Record daily for 3–5 days)				
			DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
1							
2							
3							
4							
5							
6							

ANALYSIS QUESTIONS

1. Which location had the most bacterial growth?

2. Which location had the least bacterial growth?

3. Why do you think some surfaces had more bacteria than others?

4. How could you reduce the number of bacteria on high-touch surfaces in your home?

DRAW YOUR RESULTS

Draw your plates or the types of colonies you observed. Label your drawings.



DID YOU KNOW?

Most bacteria are harmless or even helpful. This experiment shows where bacteria live, not whether they are good or bad.

