



Testing the Antibacterial Properties of Honey



In this experiment, you will test how well honey can slow or stop the growth of bacteria.

Name: _____

Date: _____

QUESTION

Does honey have antibacterial properties?



HYPOTHESIS

I think honey will _____

because _____

MATERIALS

- Raw honey
- Sterile cotton swabs
- Nutrient agar plates (2) (or other agar plates)
- Marker
- Ruler (
- Tape
- Hand soap and water



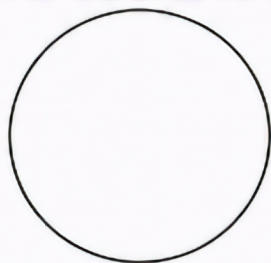
PROCEDURE

1. Wash your hands with soap and water.
2. Label the bottom of the two agar plates:
 - Plate 1 – Control
 - Plate 2 – Honey
3. Use a sterile cotton swab to gently rub the swab over a surface (like a doorknob, desk, or kitchen counter).
4. **Swab Plate 1 (Control):** Rub the swab evenly across the entire surface of Plate 1. Discard the swab.
5. **Swab Plate 2 (Honey):** Rub a new swab over the same surface. Then, dip the swab into honey, and swab Plate 2 evenly across the surface.
6. Seal both plates with tape.
7. **Incubate** the plates somewhere warm (70–80°F / 21–27°C) for 24–48 hours.
8. Observe and compare the bacterial growth.
9. Measure any zones of inhibition (clear areas) around the honey if visible.

RESULTS

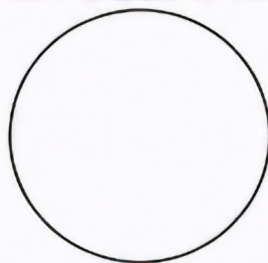
After 24–48 hours, observe both plates. Draw what you see and record your results.

Plate 1 – Control (No Honey)



Observations: _____

Plate 2 – Honey



Observations: _____

MEASUREMENTS

If there is a clear zone (no bacterial growth) around the honey, measure it.

Zone of Inhibition
(Plate 2 – Honey):

_____ mm



CONCLUSION

Was your hypothesis correct? Why or why not?

