

Name: _____

Date: _____

SCIENCE EXPERIMENT

Testing the Effectiveness of

Mosquito Repellents on Small Insects



We will test how well different mosquito repellents keep small insects away.
We will compare the number of insects in a treated area vs. an untreated area.

QUESTION

How effective are different mosquito repellents at keeping small insects away?

HYPOTHESIS

If a surface is treated with a mosquito repellent, then fewer small insects will be found in that area compared to an untreated area.

MATERIALS

- 2 clear plastic jars or containers with lids
- Mosquito repellent #1 (e.g., DEET spray)
- Mosquito repellent #2 (e.g., natural repellent)
- Water (control)
- Cotton pads or paper towels
- Masking tape and marker
- Small insects (ants, fruit flies, or gnats) (observe outdoors—do not collect in large numbers)
- Timer or clock
- Data sheet (this sheet)
- Pencil



SAFETY FIRST

- ✓ Do this experiment outdoors or near an open window.
- ✓ Do not spray repellents near your face.
- ✓ Wash hands after the experiment.
- ✓ Do not harm insects.

PROCEDURE

- 1. Prepare the Jars:** Label two jars: "Treated" and "Untreated".
- 2. Prepare the Surfaces:**
 - **For the Treated jar:** Spray a cotton pad with the repellent (use enough to lightly wet it). Place the pad in the bottom of the jar.
 - **For the Untreated jar:** Place a dry cotton pad (or one lightly dampened with water only) in the bottom.
- 3. Add Insects:** Place both jars outdoors where small insects are active. Leave the lids off and place the jars about 1–2 feet apart.
- 4. Wait:** Let the jars sit for 15 minutes.
- 5. Count Insects:** After 15 minutes, gently place the lids on the jars. Count and record the number of insects inside each jar.
- 6. Repeat with Other Repellents:** Replace the cotton pads and repeat steps 2–5 for:
 - Repellent #2
 - Water (control)
- 7. Keep Conditions the Same:** Use the same time, location, and jar type for each test.

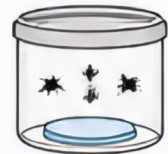
Repellent
(Treated)



No Repellent
(Untreated)



Water Only
(Control)



DATA TABLE

Test Condition	Number of Insects (after 15 minutes)	Notes
Repellent #1		
Repellent #2		
Water Only (Control)		
Untreated (No Pad)		

OBSERVATIONS

What did you notice?

CONCLUSION

Which repellent worked best? Why do you think so?
