

Air Quality & Pollution

Name: _____ Date: _____

LEARNING OBJECTIVE

The student will build a simple particulate-matter collection experiment and analyze results to understand local air quality.

MATERIALS NEEDED

- 3-4 index cards or paper plates
- petroleum jelly or clear tape (sticky side)
- a magnifying glass (optional)
- paper
- pencil
- string or tape to hang cards outdoors

HANDS-ON ACTIVITY

1. Spread a thin layer of petroleum jelly (or place sticky tape face-out) on 3-4 index cards or paper plates.
2. Place or hang your cards in different outdoor locations for 24 hours (e.g., near a road, in a yard, near a door) and label each with its location.
3. After 24 hours, collect your cards and examine each one closely (using a magnifying glass if available), counting and describing visible particles.
4. Record your observations in a table comparing particle amount and type across the different locations.
5. Rank your locations from most to least polluted based on your observations and propose one reason for the difference.

QUESTIONS

1. Which location collected the most visible particles, and which collected the fewest?

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2. Describe what the particles looked like (color, size, texture) at your most polluted location.
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3. What is one likely reason your most polluted location had more particles than your least polluted location?

4. How could poor air quality like what you observed affect human health over time?
