

Air Quality Experiment

Introduction

In this experiment, you will compare air quality inside your classroom and at various outdoor spots on your school campus to determine how different locations can affect air quality.

Materials Included

Paper Plates • String • Petroleum Jelly • Magnifying Glass

Instructions

1. Attach a piece of string to each paper plate using the hole at the top.
2. Label each paper plate with a location. You may want to write *"Science experiment in progress; please do not touch/throw away"* on the paper plates so no one removes them.
3. Rub petroleum jelly on one side of each paper plate.
4. Hang one paper plate inside classroom, and additional paper plates outside.
5. Take a picture of each paper plate after you initially hang them up.
6. Revisit each plate daily to mark what you see on your Observation Sheet.
7. On the fifth day, take another picture of each paper plate for comparison.
8. Bring all paper plates inside and examine them with your magnifying glass.
9. Direct the class to engage in a discussion and respond to the five questions located on the reverse side of this page.

How it works

Much of the pollution we breathe is not easy to see. This educational activity allows students to see the presence of particles (referred to as PM or particulate matter) to help facilitate discussion about why air pollution is a problem, what contributes to it and how we can help solve the problem by changing our own habits.



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Analysis & Conclusion:

1. Describe what the particles on each paper plate looked like (color, shape, relative size).
2. Which paper plate had more particles attached to it?
3. Based on your answer to question #2, why do you think this paper plate had more particles attached to it?
4. How could the time of year affect the amount of particles found on the paper plate?
5. If you lived near a busy highway or an industrial complex, how do you think the amount of particles on your paper plate would change? Why?



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