

Checking Air Quality without Filters

Objective: Observe air quality changes when no air filters are used.

Materials Needed:

- Air quality monitor
- Fan
- Stopwatch

Procedure:

1. Set up the fan in a small, enclosed area without any filters.
2. Turn on the air quality monitor and fan simultaneously.
3. Record the initial air quality reading.
4. Allow the fan to run for 10 minutes.
5. Record the air quality reading after 10 minutes.
6. Discuss the implications of not using air filters based on the data collected.

Data Collection Chart:

Initial PM Reading	Final PM Reading	Difference

Observations:

Next step...Research and Community Connection: Look up creditable sites for research about what happens to the air quality and what happens to the machines (air conditioners) if a filter is not used or not changed. Have a guest speaker from a local air conditioner company come in and talk show parts of a machine that has been damaged.

What did you find?

Now... Redo Conclusion: What are the pros and cons of using an air filter?