



# Make your own Air Pollution Monitor!

Calling all budding environmental scientists, let us have a look at what is in our air and work together to clean it up.



## You will need:

- Petroleum jelly
- String
- Scissors
- Milk carton or cardboard
- Black permanent marker
- Magnifying lens



#brumbreathes

## **What is Air Pollution?**

**Air pollution occurs when gases, smoke, dust or odour get into the air and make it dirty.**

**Air pollution is bad for our health and harmful for the environment.**

### **Method:**

**Step 1:** Get a drinks carton/piece of cardboard. Clean and dry the carton/cardboard thoroughly before use. A light coloured card will work better than dark as it will be easier to see the particles.

**Step 2:** Cut the cardboard into 1 or two squares, approx. 7cm each side.

**Step 3:** Make a hole in one corner of each square card and tie some string to the corner.



**Step 4:** Choose 1 or 2 locations to hang up your sample cards. Examples: outside your house, near a main road, a park, or speak to a teacher to hang outside your school.

**Step 5:** Write the location on the sample cards.

**Step 6:** At each location, find a place to hang up three of your sample cards.



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**Did you know that most of the particles of air pollution we are trying to check are too small to see without special microscopes?  
Most of them are smaller than the diameter of a strand of hair!**

**Step 7:** Before you hang each sample card up, spread a thin layer of petroleum jelly on the card with your finger.



**Step 8:** Hang up the sample card.



**Step 9:** Leave your sample cards for 3–5 days. It is best to leave them on days when there is no rain, so if you hear it is going to rain be sure to go and collect them even if you have not left them out for a full five days.

**Step 10:** After a few days, remove the sample cards one at a time. Use your magnifying glass to count the number of visible particles you see in the petroleum jelly on each sample card.

## THE INVISIBLE KILLER

Air pollution may not always be visible, but it can be deadly.



**29%**  
OF DEATHS FROM  
**LUNG CANCER**



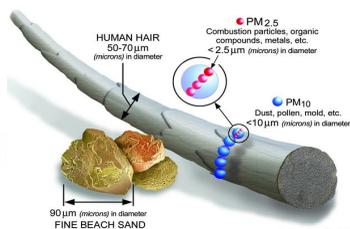
**24%**  
OF DEATHS FROM  
**STROKE**



**25%**  
OF DEATHS FROM  
**HEART DISEASE**



**43%**  
OF DEATHS FROM  
**LUNG DISEASE**



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## Things to think about...

- If no particles appear on your sample card(s), does that mean that there is no air pollution where the sample card was located? Remember how tiny most of these air pollution particles are!
- Can you think of some other reasons?

## What you can do to help:

- Walk/Cycle/Scoot to school
- Be an Air Quality Champion by speaking to friends and family about air pollution



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