

## "Catching" Air Pollution

A useful introduction to indoor air pollution and understanding there are things in the air that we cannot see.

### Materials

- 3-4 clear plastic or plain white paper plates
- Permanent marker
- Petroleum jelly
- Masking tape/poster putty
- 3-4 blank pieces of paper
- Magnifying glass

### Initial Discussion with Kids

- Why is clean air necessary?
- When we breathe air into our bodies where does it go?
- Is there stuff in the air that shouldn't be there?

### Activity

1. Use a permanent marker to label each of your plates with a different location around the house/school/daycare. The experiment is about indoor air quality, but you could place at least one plate outside too.
2. After your plates are labeled, spread a thin layer of petroleum jelly on each. Use the same amount of jelly on each plate.
3. Use your masking tape or poster putty to hang the plates around their respective rooms.
4. Wait 3-5 days and then collect your plates.
5. Place each plate on a piece of white paper. Use the magnifying glass to observe the different particles that were collected.

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### Discussion Questions

- Discuss the different things that have been collected on the plates. What shape are they? How big or small are they?
- How do you think these particles got on the plates?
- Do the particles on the plates from different locations look different? Why do you think that is?
- What can we do to keep our indoor air cleaner?
- Who's responsible for keeping the air clean?

### Discussion Points

- Pollution indoors comes from many places. It can come inside from the outdoors (from things that move us like cars/buses/planes/trains; from industrial sources like factories and refineries; or from mother nature like wildfires, volcanic ash, dust) through doors and windows. It can also come from inside too—the items inside our home like furniture, fireplaces, paint, cleaning products can all produce pollution. But the people inside and what we do can also produce pollution (smoking or vaping, cooking, using chemicals like paint or glues)—pets can even cause our air to be not clean.
- Breathing in this pollution can sometimes make us feel sick, especially people who have breathing problems already. Sometimes we don't feel sick right away, but if we breathe in bad air and pollutants for long enough, it may cause problems.
- There are easy ways we can keep our indoor air clean. We can be sure to keep the outdoor pollution outdoors by closing windows and doors when outdoor pollution is bad. We can be careful about using different chemicals in the classroom. And we can clean our air by using a portable HEPA air cleaner, which filters pollutants out of the air.