PRACTICAL-4

Make a list of indoor pollutants in your house. Find out the ways to reduce them to 50 percent and improve the indoor air quality of your own house.

Firstly, we make a list of indoor pollutants in our house-

1. **Cooking Fumes:** Smoke and fumes generated during cooking, especially when using solid fuels like wood, coal, or biomass, can release harmful pollutants such as carbon monoxide, particulate matter, and volatile organic compounds (VOCs).
2. **Tobacco Smoke:** Smoking indoors releases a range of harmful chemicals, including nicotine, tar, carbon monoxide, and various carcinogens, which can pose serious health risks to inhabitants.
3. **Household Cleaners and Chemicals:** Many household cleaning products, such as floor cleaners, toilet cleaners, and air fresheners, contain chemicals like ammonia, chlorine, and VOCs, which can contribute to indoor air pollution.
4. **Pesticides and Insecticides:** The use of pesticides and insecticides indoors to control pests can release toxic chemicals into the air, which can be harmful when inhaled.
5. **Biological Pollutants:** These include allergens such as dust mites, pet dander, pollen, mold spores, and bacteria, which can trigger respiratory issues and allergies, particularly in sensitive individuals.
6. **Building Materials and Furniture:** Some building materials, paints, varnishes, and furniture can emit volatile organic compounds (VOCs) such as formaldehyde, benzene, and toluene, especially when newly installed or freshly painted.
7. **Radon:** Radon is a naturally occurring radioactive gas that can seep into homes through the ground and accumulate indoors, posing a risk of lung cancer when inhaled over long periods.
8. **Carbon Monoxide (CO):** This odorless, colorless gas can be produced by faulty or poorly maintained gas appliances, stoves, heaters, and generators, posing a serious health risk if not detected promptly.
9. **Particulate Matter (PM):** Indoor sources such as combustion processes, smoking, and dust can generate fine particulate matter (PM2.5) and coarse particles (PM10), which can penetrate deep into the lungs and cause respiratory issues.
10. **Poor Ventilation:** Inadequate ventilation can lead to the accumulation of indoor pollutants by trapping them indoors, exacerbating the problem.

How to reduce these pollutants by 50% and improve the indoor air quality:

1. **Open Windows:** Ensure proper ventilation to promote a good exchange of indoor and outdoor air.
2. **Ban Smoking:** Avoid smoking indoors to prevent secondhand smoke.
3. **Pet Care:** Bathe pets and wash their bedding often to reduce allergy-causing dander.
4. **Use Exhaust Fans:** Run fans in the kitchen to remove cooking fumes and in bathrooms to remove steam.
5. **Cleanliness:** Wipe shoes before entering the house and vacuum often.
6. **Change Filters:** If you have a forced-air heating and cooling system, change the air filters more often.
7. **Skip Fires:** Avoid using fireplaces as they release soot and smoke into the air.
8. **Avoid Covering Up Odors:** Avoid air fresheners, scented candles, incense, and other odor-masking fragrances.
9. **Minimize Carpeting:** Carpets can trap pollutants such as dust mites, pet dander, mold spores, and other dirt and dust.
10. **Stay Dry:** Use a dehumidifier to reduce moisture and prevent mold growth.