

Air Monitor Activity

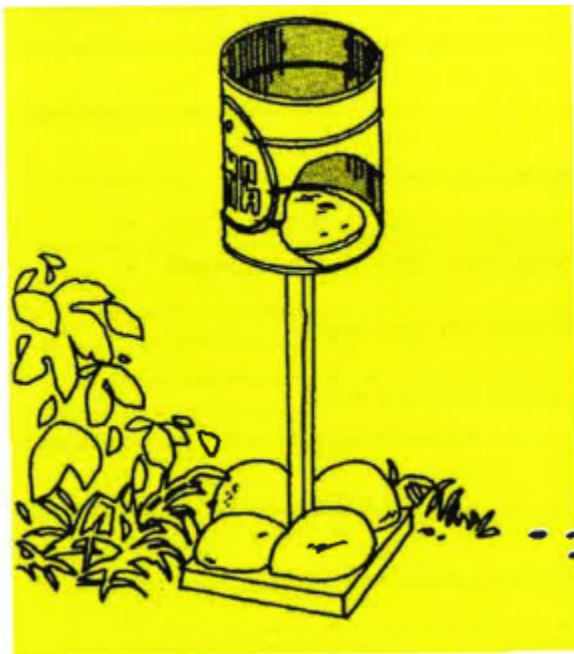
Unit 4: Environmental Impacts & Stewardship

Supplies

- Large coffee can
- Shiny white cardboard or paper 10 inches by 20 inches
- Petroleum jelly (such as Vaseline)
- Masking or mending tape
- Wood pole 4 feet long
- Wood base 1 ½ feet by 1 ½ feet

According to the U.S. Environment Protection Agency, millions of tons of man-made waste products are released into the air each year in this country. The main ingredients in these waste products are carbon monoxide, sulfur, and nitrogen gasses, hydrocarbons, and very small solid and liquid particles.

Now of this huge amount released, probably around a third of it falls back to the earth. Some of it is visible as dust, ash and smoke.



Technicians need special equipment to measure and study this fallout. But you can still get a general impression of how much dirt is in the air in your area by doing this simple experiment. In the experiment, the coffee can is positioned on a stand with the open end facing upward. The sides of the can and the height of the stand will help to keep out the ground dust. After assembling the stand, punch a small hole in the bottom of the can. Then nail the can to the pole.

From one end of the cardboard, cut out a disc about 5 inches in diameter, and spread a thick coating of petroleum jelly all over the white surface. Lay the disc on the bottom of the coffee can (jelly side up, of course).

Now you can start the test by placing the stand out in an open area as far above the ground as possible. Put a few rocks on the base of the stand to keep it from being blown over. In a couple of weeks or so, you'll be able to tell how clean or dirty the air is around you.