

Smog Alert!



Though ozone in the atmosphere protects the earth from the sun's powerful ultraviolet, when it forms on the ground it can be harmful to people, animals and plants. This is called smog.

Ozone forms on the ground when the exhaust from cars, factories and chemicals mix with hot temperatures and strong sunlight. All these things together make smog. Smog is becoming common in cities like Los Angeles and can cause serious health issues. Some cities have ozone alerts where they ask people to stay indoors when smog levels are high.

To help understand smog, let's create some in a jar.

Materials:

1. One jar
2. An aluminum foil top
3. Some ice cubes
4. Some paper and matches
5. Help from an adult

Procedures:

To make smog, everything has to be done fast – so have everything on hand and ready.

1. First, rinse the jar out – so the sides are coated with water.
 2. Make a lid with the foil.
 3. Set it aside with the ice cubes on top to cool.
 4. Have your adult helper light the paper on fire and drop it in the jar.
 5. Quickly put on the cold foil lid and put the ice cubes back on top.
 6. Look into the jar.
4. Do you notice how the smoke sits on the bottom of the jar? This is the way smog forms.
 5. Don't breathe it in when you release your smog outside. It's bad for you!

Explanation: You just created the conditions for smog. You added air pollution (smoke) to a closed environment (the jar – the city). Adding the ice cubes on top mimicked the heat of the city trapped under a cooler atmosphere. This didn't allow the smoke to rise into the atmosphere and break up. Instead it sat on the ground – as smog.