

What's in the AIR gets Around!

Air pollution comes from many sources, both natural & manmade.

forest fires, volcanic emissions

vehicle exhaust, smokestack emissions

OZONE (GOOD) is a gas that occurs naturally in the upper atmosphere. It filters the sun's ultraviolet rays and protects life on the planet from the burning rays.

AIR AWARENESS: Our air contains a combination of different gases: **78% nitrogen, 21% oxygen,** plus 1% from carbon dioxide, water vapor, and other gasses.

Air moves around when the wind blows.

Air pollution from one place can cause problems many miles from where it started.

ACID RAIN forms when sulfur oxides and nitrogen oxides mix with water vapor in the air. Because wind moves the air, acid rain can fall hundreds of miles from its source. Acid rain can make lakes so acidic that plants and animals can't live in the water.

Forests can be harmed when nutrients are drained out of the soil by acid rain, and trees can't grow properly.

AIR MONITORING: Scientists check the quality of our air every day and grade it using the Air Quality Index (AQI). We can check the daily AQI on the Internet or from local news sources.

Water falls from clouds that form in the air. Pollutants and tiny bits of soil are carried with it to the ground below.

1 The air is in constant motion around the earth (wind). As it moves, it absorbs water from lakes, rivers and oceans, picks up soil from the land, and moves pollutants in the air.

Earth's Air Cycle

Plants use carbon dioxide from the air during photosynthesis, and release oxygen. They absorb water and pollutants carried in the air.

4 People and animals breathe in air. We use oxygen and exhale carbon dioxide.

Smoke from **FACTORIES and POWER PLANTS** adds particulate matter (tiny particles) to the air.

Greenhouse gases, sulfur oxides and nitrogen oxides are added to the air when coal, oil and natural gas are burned to provide energy.

CARS, TRUCKS & BUSES add carbon dioxide, sulfur oxides, nitrogen oxides and particulate matter to the air. Carbon dioxide is a greenhouse gas and contributes to climate change. The other pollutants contribute to acid rain, ground-level ozone and smog.

FIRES can add particulate matter (ashes) and toxic gasses to the air.

OZONE (BAD) sometimes forms at ground level when the weather is hot and sunny and the air is polluted. It makes breathing uncomfortable, especially for people with asthma.

TREES and other plants require carbon dioxide (a greenhouse gas) for photosynthesis. As they grow, they absorb and trap pollutants within their cells.

Choosing to get around without motorized transportation is not only good for the air, it's good for you, too.

How many manmade sources of air pollution can you find here?
Can you find people doing things to limit air pollution?