

## Lesson 7: Got Dirty Air? – Sources of Air Pollution (Major Man-Made Air Pollutants)

<b>POLLUTANT</b>	<b>DESCRIPTION</b>	<b>SOURCES</b>	<b>SIGNS/ EFFECTS</b>
Carbon monoxide (CO)	<ul style="list-style-type: none"> <li>colorless, odorless gas</li> </ul>	<ul style="list-style-type: none"> <li>vehicles burning gasoline</li> <li>indoor sources, including kerosene, wood-burning, natural gas, coal, or wood-burning stoves and heaters</li> </ul>	<ul style="list-style-type: none"> <li>headaches, reduced mental alertness, death</li> <li>heart damage</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>metallic element</li> </ul>	<ul style="list-style-type: none"> <li>vehicles burning leaded gasoline</li> <li>metal refineries</li> </ul>	<ul style="list-style-type: none"> <li>brain and kidney damage</li> <li>contaminated crops and livestock</li> </ul>
Nitrogen oxides (NO <sub>x</sub> )	<ul style="list-style-type: none"> <li>gaseous compounds made up of nitrogen and oxygen</li> </ul>	<ul style="list-style-type: none"> <li>vehicles</li> <li>power plants burning fossil fuels</li> <li>coal-burning stoves</li> </ul>	<ul style="list-style-type: none"> <li>lung damage</li> <li>react in atmosphere to form acid rain</li> <li>deteriorate buildings and statues</li> <li>damage forests</li> <li>form ozone &amp; other pollutants (smog)</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>gaseous pollutant</li> </ul>	<ul style="list-style-type: none"> <li>vehicle exhaust and certain other fumes</li> <li>formed from other air pollutants in the presence of sunlight</li> </ul>	<ul style="list-style-type: none"> <li>lung damage</li> <li>eye irritation</li> <li>respiratory tract problems</li> <li>damages vegetation</li> <li>smog</li> </ul>
Particulate matter	<ul style="list-style-type: none"> <li>very small particles of soot, dust, or other matter, including tiny droplets of liquids</li> </ul>	<ul style="list-style-type: none"> <li>diesel engines</li> <li>power plants</li> <li>industries</li> <li>windblown dust</li> <li>wood stoves</li> </ul>	<ul style="list-style-type: none"> <li>lung damage</li> <li>eye irritation</li> <li>damages crops</li> <li>reduces visibility</li> <li>discolors buildings and statues</li> </ul>
Sulphur dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>gaseous compound made up of sulphur and oxygen</li> </ul>	<ul style="list-style-type: none"> <li>coal-burning power plants and industries</li> <li>coal-burning stoves</li> <li>refineries</li> </ul>	<ul style="list-style-type: none"> <li>eye irritation</li> <li>lung damage</li> <li>kills aquatic life</li> <li>reacts in atmosphere to form acid rain</li> <li>damages forests</li> <li>deteriorates buildings and statues</li> </ul>

(Source: US Environmental Protection Agency, Project A.I.R.E. <http://www.epa.gov/region01/students/teacher/airqual.html> )