

Earth/Environmental Science Homework & Test Review**Week 9: March 16 – 20, 2015****DUE DATE: Friday, March 20th****Vocabulary:** Fill in the missing areas on the table below using your textbook, class activities and any other resources you find helpful.

Vocab Word	Definition	Example/Application
Air Pollutants	Substance in the air that can cause harm to humans and the environment <i>Can be solid particles, liquid droplets, or gases; natural or man-made</i>	<i>Examples:</i> Ground-level ozone, lead, sulfur dioxide, particulate matter, nitrogen dioxide, carbon monoxide
Acid Rain	Precipitation that is unusually acidic (low pH)	Lowers pH of soil and lakes to make them more acidic.
Fossil Fuels	General term for organic materials that are combusted (burned) for fuel	Oil, Coal, Natural Gas
Smog	Yellow/Black-ish fog formed by a mixture of pollutants	Often caused by heavy traffic, high temperatures, sunshine and calm winds.

Key Pollutants: Organize the information about air pollutants using the following table

Air Pollutant	Major Sources	Environmental/Health Effects
Sulfur Dioxide (SO₂)	Industry that make paper or fuel; Combustion (burning) of fossil fuels	Precursor to acid rain, which damages lakes, rivers, trees; damage to cultural relics
Nitrogen Dioxide (NO₂)	Combustion (burning) of fossil fuels	Precursor to acid rain
Particulate Matter (PM) <i>Very small solids or liquids suspended in air</i>	Vehicles, Industry, fires	Visibility; Respiratory Problems
Carbon Monoxide (CO)	Vehicles; Combustion (burning) of fossil fuels	Human Health: Dizziness, headaches, fatigue, extreme exposure leads to death
Lead	Vehicles (burning leaded gasoline)	Fish/animal kills
Volatile Organic Compounds (VOCs – have hydrogen and carbon atoms; hydrocarbons)	Vehicles, industrial processes	Smog precursor
Ground-Level Ozone	Formed from reaction of nitrous oxides and VOCs	Reduced crop production and forest growth; respiratory problems; smog precursor

Matching: Identify the following source of air pollution as a naturally occurring event (**Nat**) or man-made activities (**Man**).**_Nat_** Smoke and dust from volcanoes**_Nat_** Smoke from forest fires started by lightning**_Man_** Carbon monoxide from vehicles**_Nat_** Dust Storms**_Man_** Nitrous oxides from vehicle exhausts**_Man_** Sulfur dioxide from power plants**_Man_** Smoke from power plants that burn fossil fuels****CONTINUES ON BACKSIDE OF PAPER****

Poster Project: In the box below, record your topic and your partner's name and draw a sketch of your plan for your poster:

Topic: _____

Partner: _____

Sketch of your plan for your poster:

Concept Map: Relate this week's talk about the air pollution by completing the following concept map. Each word is used only once.

Word Bank

- acid rain
- nitrogen oxides
- nitrogen dioxide
- particulates
- photochemical smog
- air pollution
- sulfur dioxide
- car exhaust
- respiratory problems
- fires

