**Air Quality**

**I. Components Of Air**

 **1. What percentage of each substance makes up air on Earth?**

 **Nitrogen :** \_\_\_\_\_\_\_\_\_\_\_% **Carbon Dioxide :** \_\_\_\_\_\_\_\_\_\_\_%

 **Oxygen :** \_\_\_\_\_\_\_\_\_\_\_% **Water Vapor :** \_\_\_\_\_\_\_\_\_\_\_%

 **Argon :** \_\_\_\_\_\_\_\_\_\_\_% **Ozone :** \_\_\_\_\_\_\_\_\_\_\_%

**II. Primary & Secondary Pollutants**

 **1. What is the difference between primary & secondary pollutants? Give an example of each.**

 Primary Pollutant -

 Examples : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Secondary Pollutant -

 *Examples* : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **2. Identify the primary air pollutants using the sources and effects.**

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - comes from burning fuels in vehicles, power plants, & boilers

 - brownish haze in sky

 - causes respiratory infections & cancer

 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - comes from burning fuels (mainly vehicles); vaporize rapidly

 - found commonly in household products

 - leads to smog formation; causes cancer

 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - colorless, odorless, tasteless

 - produced from cars, trucks, buses, & small engines

 - interferes with blood transport, slows reflexes, drowsiness

 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - solid or liquid suspension in air

 - comes from construction, agriculture, fires, aerosols, seas salt

 - reduce visibility, causes respiratory problems & cancer

 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - comes from burning fossil fuels, volcanoes, bleach, Freon

 - produces sulfuric acid

 - produces acid precipitation; harmful to plants & respiration

 **3. List nine examples of Volatile Organic Compounds (VOC’s).**

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**III. Effects Of Air Pollution On Health**

 **1. List six short-term effects on human health from air pollution.**

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **2. List three long-term effects on human health from air pollution.**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IV. Indoor Air Pollution**

 **1. Define the term sick-building syndrome.**

 Sick-Building Syndrome -

 **2. How are radon gas & asbestos similar and different as air pollutants?**

 Similar 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Different 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**V. Motor Vehicle Emissions**

 **1. How much air pollution comes from gas-burning vehicles?** \_\_\_\_\_\_\_\_

 **2. What are the two main provisions of the Clean Air Act of 1970?**

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **3. What are zero-emission vehicles? Give examples of zero-emission vehicles.**

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 *Examples* : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**VI. Smog**

 **1. Define the term smog.**

 Smog -

 **2. How does a temperature inversion trap smog in cities, such as Los Angeles?**

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 **3. What happened during the Great Smog of 1952 in London, England?**

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