

## APES – Review Book - Activity – CHAPTER 8

**READ the Chapter 8 Review** and complete the following WS. Please study the summarized content to help you understand the **KEY Terminology** and the **KEY concepts**.

The responses are hand generated (in PEN). You don't need to print this document; you just need the lined paper to respond to the questions.

- I. **STUDY Key Terms.** Make sure to memorize the terms. *(There will be quiz on each Chapter Review)*
- II. Answer the **Comprehension Questions and/or Concept Topics**:

### 1. STUDY and IDENTIFY types of **Air Pollution**

A) UNDERSTAND the layers of the atmosphere and what is happening in the each one – gases, percentage of gases, weather, ozone<sub>3</sub>, etc.

B) IDENTIFY and MEMORIZE the difference between the types of pollutions

- a) primary pollution
- b) secondary pollution
- c) STUDY the **AP Tip!!!**

C) MEMORIZE and CREATE a chart for the **major air pollutants** with the source and effect

**Pg. 235 – 238 – the most comprehensive summary of air pollution!**

D) DEFINE – **photochemical smog** – FF (transportation)+O<sub>2</sub> – NO – NO<sub>2</sub> – (PANs) + UV + VOC

E) DEFINE – **acid deposition** – source, formation, effects, and buffers

F) DEFINE – **indoor air pollution** – smoking, formaldehydes, radon, sick-building syndrome, asbestos, CO, mold, dust mites, etc.

### 2. UNDERSTAND and MEMORIZE the relationships among **air pollution and the Global Climate Change**

A) IDENTIFY and DEFINE **the greenhouse gases**

B) IDENTIFY the imbalance and other compounds that disturb the greenhouse gases effect

**READ: AP Tip!**

C) **FOCUS on CONSEQUENCES of air pollution:**

- a) presence of CFCs, extra CH<sub>4</sub>, CO<sub>2</sub>, N<sub>2</sub>O (fertilizers)
- b) sea level rising, melting permafrost, extreme weather, change in ocean current, change/shift in vegetation zones, biodiversity loss,
- c) **ocean acidification** – learn the process and WRITE DOWN the equation
- d) ozone depletion – STUDY ozone layer thinning – polar stratospheric ozone depletion
  - a) S. Rowland and M. Molina
  - b)  **$\text{CFCl}_3 + \text{UV radiation} \rightarrow \text{Cl} + \text{CFCl}_2$**   
 **$\text{Cl} + \text{O}_3 \rightarrow \text{ClO} + \text{O}_2$  REPEAT  $\text{ClO} + \text{O} \rightarrow \text{Cl} + \text{O}_2$  REPEAT**
  - c) Ozone is measured in **Dobson units** from the ground in a column
  - d) REMEMBER there are different types of ozone – READ **AP TIP!!!**

D) LIST and MEMORIZE all the **Air Quality acts!**