**(AP) ENVIRONMENTAL SCIENCE 2022-23 March 23, 2023**

**Today’s Agenda (Day 131)**

1. Housekeeping Items

🡪 BRING:

1. Homework Check:

🡪 Chapter 15 Reading Guide

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1. Class Activity:

🡪 **TEST: Ch 15**

🡪MONDAY:BEGIN: Chapter 16 PPT Review

1. Section 16.1 – The Atmosphere
2. Section 16.2 – Pollution of the Atmosphere
3. Section 16.3 – Categories of Air Pollutants
4. Section 16.4 – Photochemical Smog
5. Section 16.5 - Acid Deposition
6. Section 16.6 – Ozone Depletion
7. Section 16.7 – Control of Air Pollution
8. Section 16.8 – Air Pollution in the Developing World
9. Section 16.9 – Indoor Pollution
10. Section 16.10 – Noise Pollution

HOMEWORK:

* READ: Chapter 16 – Air Quality Issues
* COMPLETE:
* **STUDY**: Chapter 15 & 16 Vocabulary and Ch 16 Test

REMINDER**~~:~~**

* **~~TEST: Ch 15 🡪 March 23~~**
* QUIZ: Ch 15 & 16 Vocabulary 🡪Mar. 30
* **TEST: Ch 16 & 17 🡪 April 4**
* **TEST: Ch 18 🡪 April 11**
* QUIZ: Ch 17 - 19 Vocabulary 🡪April 13
* **TEST: Ch 19 🡪 April 18**

Chapter 15 Vocabulary

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| --- | --- | --- | --- | --- | --- |
| Activated-sludge sewage treatment | Aquiclude | Aquifer | Aquitard | Artesian wells | Biochemical oxygen demand (BOD) |
| Confined aquifer | Domestic water | Eutrophication | Evapotranspiration | Fecal coliform bacteria | Groundwater |
| Groundwater mining | Hydrologic cycle | In-stream water use | Industrial water use | Irrigation | Limiting factor |
| Nonpoint sources | Point source | Porosity | Potable water | Primary sewage treatment | Runoff |
| Salinization | Saltwater intrusion | Secondary sewage treatment | Semiconfined aquifer | Sewage sludge | Stormwater runoff |
| Tertiary sewage treatment | Thermal pollution | Trickling filter system | Unconfined aquifer | Vadose zone | Water diversion |
| Water table |  |  |  |  |  |

Chapter 16 Vocabulary

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| --- | --- | --- | --- | --- | --- |
| Acid deposition | Acid rain | Carbon monoxide | Criteria air pollutants | Decibels | Hazardous air pollutants (air toxics) |
| Hydrocarbons | Nitrogen dioxide | Nitrogen monoxide | Nitrogen oxides | Ozone | Particulate matter |
| Photochemical smog | Primary air pollutants | Radon | Secondary air pollutants | Sulfur dioxide | Thermal inversion |
| Volatile organic compounds (VOCs) |  |  |  |  |  |

**(AP) ENVIRONMENTAL SCIENCE 2022-23 READING GUIDE**

**CHAPTER 16**

**Review Questions**

1. Name the two primary gases in the atmosphere.

2. Describe two ways the gases in the troposphere differ from those in the stratosphere.

3. Describe two ways the atmosphere can get rid of pollutants.

4. List the five primary air pollutants commonly released into the atmosphere and their sources.

5. List the six criteria air pollutants, their sources, and their effects.

6. Define secondary air pollutants and give an example.

7. How is each of the following involved in the production of photochemical smog: volatile organic compounds, nitrogen oxides, thermal inversions, sunlight, automobiles, and ozone?

8. Why do some cities have greater problems with smog than others?

9. Describe three regulatory actions of the EPA that have significantly improved air quality and why they improved air quality.

10. What molecules produce acid rain and how are they produced?

11. What are the primary effects of acid rain on terrestrial and aquatic ecosystems?

12. Why is stratospheric ozone important?

13. What was done to protect stratospheric ozone?

14. What are the National Ambient Air Quality Standards?

15. Give an example of a hazardous air pollutant.

16. Explain why air pollution problems in economically developing countries are different from those in developed countries.

17. How does radon enter a home?

18. Why do buildings often have poor air quality?

19. Define noise.

**Critical Thinking Questions**

1. Why do you think air pollution is so much worse in developing countries than in developed countries? What should developed countries do about this, if anything?

2. What common indoor air pollutants are you exposed to? What can you do to limit this exposure?

3. Is it possible to have zero emissions of pollutants? What level of risk are you willing to live with?