

AP Environmental Science

Name: _____ Score: _____

1. **Air pollution** is...

- ☐ clean air with no chemicals
- ☐ soil erosion
- ☐ water in rivers
- ☐ harmful substances added to the air

2. Photochemical smog needs which one to form?

- ☐ sunlight
- ☐ deep water
- ☐ darkness
- ☐ snow

3. In a **thermal inversion**, the unusual thing is that...

- ☐ warm air sits above cooler air
- ☐ the ground is colder than space
- ☐ there is no air at all
- ☐ it always rains

4. The main problem with rising atmospheric CO₂ is that it...

- ☐ traps heat and warms the planet
- ☐ is poisonous to breathe
- ☐ makes water acidic to drink
- ☐ blocks all sunlight

5. **Carbon monoxide** is especially dangerous indoors because it...

- ☐ is bright red
- ☐ is harmless to breathe
- ☐ is invisible and odourless but deadly
- ☐ smells very strong

6. Governments cut pollution by passing _____ that set legal limits on emissions.

7. Acid rain has a low pH, meaning it is _____ (the opposite of basic).

8. Years of loud noise can cause permanent _____ loss.

9. A _____ pollutant forms in the air when primary pollutants react, like ozone in smog.

10. The main harmful gas in photochemical smog is ground-level _____.

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1. harmful substances added to the air

Air pollution is any harmful substance added to the air – gases, particles, or droplets.

2. sunlight

“Photochemical” means light-driven – strong **sunlight** powers the reactions that make smog.

3. warm air sits above cooler air

Normally air cools with height. In an **inversion**, a warm layer sits on top of cooler air – upside down.

4. traps heat and warms the planet

CO₂ is the main greenhouse gas – it traps heat and drives global warming.

5. is invisible and odourless but deadly

Carbon monoxide cannot be seen or smelled, so it can build up and kill without warning.

6. laws

Clean-air **laws** set legal limits, forcing factories and cars to cut their emissions.

7. acidic

A low pH means **acidic** – acid rain can be far more acidic than normal rain.

8. hearing

Long exposure to loud noise damages the ear, causing permanent **hearing** loss.

9. secondary

A **secondary** pollutant is not emitted directly – it forms in the atmosphere, like ground-level ozone.

10. ozone

Ground-level **ozone** is the key ingredient of smog and irritates the lungs.