

Section 2: Chemistry Review

Chemistry is a big part of environmental science. It is highly recommended that you take chemistry before registering for this course. There will be a chemistry section (related to this review) on your first test.

Chemical Compounds Table and Review Worksheet

Chemical compounds are substances formed from two or more elements chemically bonded together. In environmental science, understanding the chemical formulas and names of common compounds is essential for interpreting scientific literature, understanding reactions, and recognizing their significance in natural and human-made processes.

Fill in the Table

Complete the table by filling in the correct common name for each chemical compound.

Chemical Formula	Common Name	Chemical Formula	Common Name
CO ₂		PO ₄ ³⁻	
CO		S	
C ₆ H ₁₂ O ₆		Cl	
CH ₄		SO ₂	
H ₂		K	
H ₂ SO ₄		NaCl	
H ₂ O		Pb	
N ₂		Hg	
NO ₂		Rn	
NO ₃ ⁻		CH	
NH ₃		CH ₂ O	
O ₂		Fe	
HNO ₃		U	
O ₃		PAN (photochem smog)	
P			

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Fill in the Blank: Fill in the blank with the correct words.

1. The chemical formula for ozone is _____, and it plays a crucial role in absorbing ultraviolet radiation in the atmosphere.
2. _____ is the most abundant gas in Earth's atmosphere and is represented by the formula N_2 .
3. The greenhouse gas primarily produced by burning fossil fuels and responsible for climate change is _____.
4. _____, with the formula $NaCl$, is commonly known as table salt.
5. The toxic heavy metal with the symbol Hg is known as _____.

Answer each of the following questions in sentence form:

- a. What is the pH scale? Explain what it measures.
- b. How do the numbers on the pH scale compare? Example – is a pH of 4 twice as strong as a pH of 2? Hint- the pH scale is not linear!
- c. What are the average pH ratings of the following common substances in the environment? (memorize these)
 - I. Blood _____
 - II. Rain _____
 - III. Freshwater (lake or river). _____
 - IV. Ocean water _____

Place this section in your APES envelope and mark completed on your checklist.