

Chemistry Review Take-Home Quiz

Instructions: Complete the quiz from memory (with periodic table of elements), on a separate sheet of paper. Then, review the “Comprehensive Chemical Compounds” powerpoint (on Ms. Au’s website → Unit 2) and try to fill in any questions you missed. Finally, check the answer key for this quiz and correct any mistakes you made. Circle any questions you had major issues with and want help with.

1. What is an element? List 3 examples of elements.
2. What is a compound? List 3 examples of compounds.
3. How do you find the number of protons in an atom or ion?
4. How do you find the number of neutrons in an atom or ion?
5. How do you find the number of electrons in an atom?
6. How do you find the number of electrons in an ion?
7. In a Bohr model, how many electrons can the first shell hold? Second shell? Third shell? Fourth shell?
8. What is a valence shell?
9. Draw the Bohr model of a neutral carbon atom.
10. Draw the Bohr model of a nitrogen ion.
11. Why do compounds form?
12. Compare and contrast ionic and covalent compounds.
13. Classify these as elements, ionic compounds, and covalent compounds. Then, name them.
 - a. NaBr
 - b. Br₂
 - c. K
 - d. N₂O₄
 - e. S₂
 - f. Li₂S
 - g. NO
 - h. Ag₂SO₄
 - i. K₃PO₄
 - j. P₄
 - k. Rb₃P
 - l. H₂O
14. Classify these as elements, ionic compounds, and covalent compounds. Then, write their chemical formulas.
 - a. hexafluorine trioxide
 - b. magnesium
 - c. manganese(III) fluoride
 - d. iron(II) dichromate
 - e. magnesium chloride
 - f. dicarbon hexachloride
 - g. oxygen
 - h. nickel(II) oxide
 - i. diphosphorus pentoxide
 - j. copper(I) phosphate