

1. Define matter.
2. Explain the difference between element, compound, and molecule.
3. Explain how ionic compounds are formed and describe at least 2 properties of ionic compounds.
4. Explain how covalent compounds are formed and describe at least 2 properties of covalent compounds.

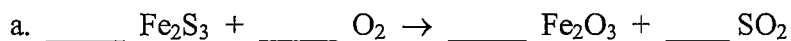
5. Complete the following table:

Symbol	Atomic #	Atomic mass	# Protons	# Neutrons	# Electrons
			92	145	
		260			103
S ²⁻	16			16	
Ag		108			
Fe ³⁺				30	

6. Write the correct name or formula.

Ca ₃ P ₂		tin (II) hydroxide	
SnCl ₅		zinc phosphate	
Mn(CrO ₄) ₂		iron (III) cyanide	
K ₂ SO ₃		dinitrogen tetroxide	
Mg(SCN) ₂		aluminum chloride	

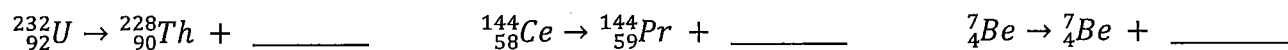
7. Balance the following equations.



8. How do you identify each of the following reaction types: synthesis, decomposition, single replacement, double replacement, neutralization, and combustion.

9. What is the other name for an α particle? What is the other name for a β particle?

10. Fill in the blank for the following nuclear reactions.



11. List at least one characteristic of each of the following families: Alkali metals, Alkaline Earth metals, Halogens, Noble gases

12. If the half-life of a radioactive isotope is 12 days, what fraction of a sample would remain after 48 days?

13. Draw Lewis diagrams for the following: CaCl_2 F_2 H_2O

14. Write the names into correct formulas, predict the products, balance the reactions, and name the reaction type

aluminum + chlorine \rightarrow

beryllium iodide + tin (IV) nitrate \rightarrow

hydrochloric acid + magnesium hydroxide

ethyne gas (C_2H_2) + oxygen \rightarrow

(answers are on my website....if you only copy the answers, you are only cheating yourself!)