

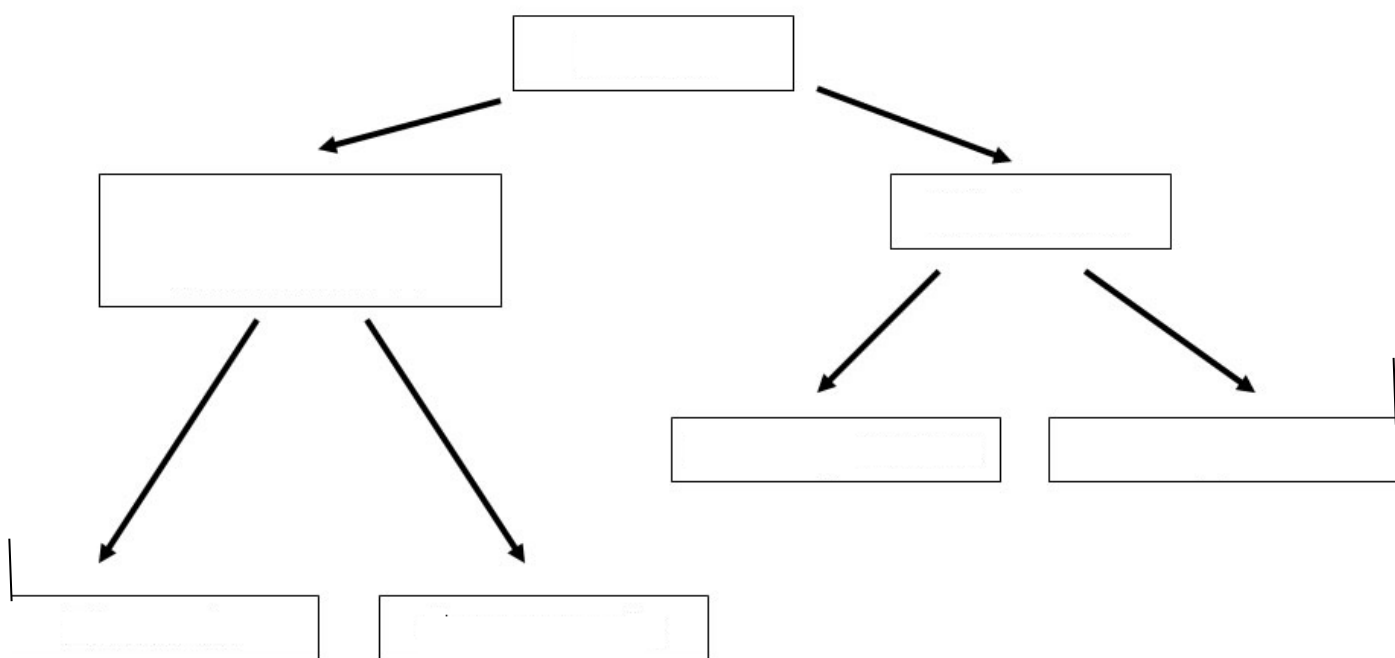
Unit 2 Matter and the Atom Review

- Determine if the following are chemical or physical changes.
 - Glass shattering
 - Silver tarnishing
 - Paper tearing
 - Pancakes cooking
 - Candle burning
 - Hydrochloric acid dissolving
 - Leaves changing colors
- Circle the item that is an example of the term
 - Compound
C₁₂H₂₂O₁₁ air Ni
 - Homogeneous mixture
Silicon Jello nickel
 - Element
Salt brass aluminum
 - Alloy
steel air silver
- Determine if the following are homogeneous or heterogeneous
 - Stainless steel
 - Granite
 - Air
 - Oil and water
 - Wild bird seed
 - Chunky peanut butter
 - Dirt
 - Vinegar
 - Gasoline
- Determine if the following are intensive and extensive properties.
 - Mass
 - Melting point
 - Length
 - Boiling point
 - Volume
 - Density
- Define isotope and give an example.
- Define ion and write an example.

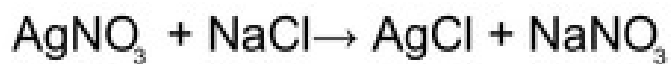
7. Complete the following table.

Subatomic Particle	Relative Mass	Relative Charge	Symbol	Location
Proton				
Neutron				
Electron				

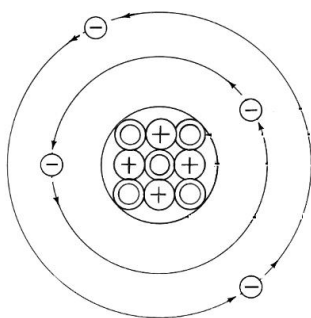
8. Complete the following flow chart for classification of matter. You should use the terms: homogeneous mixture, heterogeneous mixture, mixture, compound, pure substance, element and matter.



11. Identify the reactants and products in the following reaction.



12. Label the protons, neutrons, electrons and nucleus for the following atom.



13. Explain the difference between average atomic mass and mass number.

14. Use the table below to calculate the average atomic mass for silicon.

Silicon		
mass number	exact weight	percent abundance
28	27.976927	92.23
29	28.976495	4.67
30	29.973770	3.10

16. Complete the following table:

Element	Symbolic Notation	Atomic Number	Atomic Mass	Mass Number	# Protons	# Neutrons	# Electrons
Carbon - 13							
				28	14		
		19				20	18
Copper - 66							27
	$^{210}_{83}\text{Br}^{-1}$						
		54		132			
	$^{238}_{92}\text{U}$						