Subatomic Particles Worksheet

Name:_____ Date:

ELEMENT NAME	ATOMIC NUMBER	MASS NUMBER	STANDARD ATOMIC Notation	NUMBER OF PROTONS	NUMBER OF ELECTRONS	NUMBER OF NEUTRONS
ALUMINUM						
			$^{40}_{18}Ar$			
	4					
				5		
		40				
CARBON						
						20
		19				
					2	
						0
	3					
				12		
NEON						
	7					
						8
		31				
				16		
					14	
					17	
SODIUM						

LEWIS STRUCTURES (Electron Dot Diagrams)

Name:_____ **Date:**_____

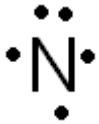
Lewis structures are a simplified model of the atom. They only show the valence electrons of the atom or ion.

Here's how they are drawn:

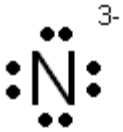
1. Element symbol is used to represent the nucleus of the atom/ion.
   E.g. Lithium atom (1 valence electron)
2. Visualize the symbol having four sides.
3. Valence electrons are placed as dots on the four sides
4. Dots are placed singly, then paired.

Examples:

Nitrogen Atom
(5 valence electrons)



Nitrogen Ion
(8 valence electrons)



Try these: Draw the Lewis Structure for the following atom or ion:

1) Chlorine
2) Chlorine Ion
3) Hydrogen
4) Oxygen

5) Oxygen Ion
3) Aluminum
4) Aluminum Ion
5) Magnesium

6) Magnesium Ion
7) Phosphorous
8) Phosphorus ion
9) Argon