Names _____

To start class today, you and your partner must first finish this paper and show Mr Schmitt. You may use your textbook!



1. On this diagram, label the following chemical families: Noble Gases, Alkali Metals, Alkaline Earth Metals, Transition Metals, and Halogens.

H		I	Peri	odic	: Tal	ole d	of th	e E	lem	ents							He ²
Li 3	Be	[B 5	C	N ⁷	08	F	10 Ne			
11 Na	12 Mg									AI	14 Si	15 P	16 S	17 Cl	18 Ar		
19 K	Ca ²⁰	21 Sc	22 Ti	V ²³	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
37	20	00															
Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 TC	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53	Xe Xe
Rb 55 Cs	Sr 56 Ba	Y 57 La	Zr 72 Hf	Nb 73 Ta	Mo 74 W	Tc 75 Re	Ru 76 Os	Rh 77 Ir	Pd 78 Pt	Ag 79 Au	Cd	In			Те	1 85 At	54 Xe 86 Rn
Rb	Sr 56	Y 57 La 89	Zr 72 Hf 104	Nb 73 Ta 105	Mo 74 W	Tc 75 Re	Ru 76 Os 108	Rh 77 Ir	Pd 78 Pt 110	Ag 79 Au	Cd 80	In 81	Sn 82	Sb 83	Te 84	85	Xe 86

Cm

Bk

Cf

Es

100

Fm

101

Md

102

Lr

No

2. Label the following diagram: Proton, neutron, electron, nucleus, energy shell

Pu

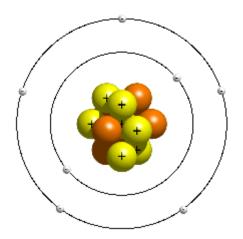
Am

Pa

Th

U

Np



- 3. What is the name of an atom that has gained or lost electrons?
- 4. What is the name of an atom that gains an electron? ______ Will it be positively or negatively charged? ______ What type of element gains electrons (metal or non-metal)?
- 5. What is the name of an atom that loses an electron? ______ Will it be positively or negatively charged? ______ What type of element loses electrons? (metal or non-metal)

- 6. The name of the electrons in the outside energy shell of the atom are called
 - a) Multivalent electrons c) velocity electrons
 - b) Valence electrons d) multi electrons
- For an atom to be stable (it doesn't want to change) how many valence electrons does it want in its outside energy shell if it is in period 1? _____ Period 2? _____ Period 3? _____
- 8. Which family of elements has a full valence shell? ______
- Draw a Bohr diagram for:
 a) Sulfur

b) Nitrogen

10.	Complete the following table:
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Element or Ion Name	Symbol	Mass Number	Atomic Number	# Protons	Charge on Nucleus	#Electrons	#Neutrons	Charge
Carbon		12						
	F						10	
		9		4				0
Oxygen Ion	0 ²⁻	16						
				14		14	14	
	Na⁺						12	+1
		35			17			0
		37		17				0
		35	17					-1

- 11. Give an example of a **multivalent** metal.
- 12. For the diagram to the right:
 - a) What is the name of the element?
 - b) What is the mass number?
 - c) Is this an ion or not an ion?

p = 11 n = 12

d) Is this a multivalent metal?