Name:

Find the Patterns in Your Periodic Table

PERIODIC TABLE OF THE ELEMENTS																		
1	H	2 IA			14 — IW —									14 NA	15 VA	16 113	17 YEA	He
2	Li	Be	t mile		C	Constant State							B	C	N	0	F	Ne
3	Na	Mg	3 118	4	5 VB	6 VIB	7 VIB		-VII8-	10	11 B	12 18	Al	Si	р:	S	CI	Ar
4	K	Ca	Sc	"Ti	V	Cr	Mn	Fe	Co	Ni Mass Mass	Cu	Zn	Ga	Ge	As	Se	Br	Kr
5	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I I	Xe
6	Cs	Ва	La	Hf	Та	W	Re	Os	lr :	Pt	Au	Hg	TI	Pb	Bi	Ро	At	Rn
7	Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	Uun	Üuu	Üub	Uut	Ûuq	Üup	Ůuh	Uus	Ůuo
	Elect 1 K 2 2 L 1 2 M 1 4 N 2	79e Shel	0 14	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy.	Ho	Er	Tm	Yb	Lu
	6 P 1 7 Q 1 5 R 2	2 6 1	0	Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

The *periodic table* is a systematic arrangement of the *elements* according to their *atomic structure*. You now know quite a bit about the structure of atoms, particularly, the number of each particle (protons, neutrons, and electrons), the number of valence electrons, and the number of energy levels for each atom (*you know this for the first 18 elements*).

Look at the periodic table you made and your analysis of each element. How do the *Bohr* electron diagrams, atomic numbers, Lewis dot structures, etc. change as you move from <u>left to right</u> across the table or <u>up and down</u> in the same column. Write about at least three patterns that you see. Include specific examples to illustrate the patterns you see. This should be at least two paragraphs.