Name _____ Period _____

Freshmen Transition

Assignment 3G – Periodic Trends Part 1 – Atomic and Ion Structure 20 Points

Complete the following chart based on the atomic structure of the elements below

Periodic Groups Alkali Metals (group 1, IA) IA(1) = 1 vale⁻

Element	Symbol	Group	Period	Val e⁻	Inner EL	Outer EL
Lithium	Li	1	2	1	1	2 (period)
Sodium	Na	1	3	1	1-2	3
Potassium	K	1	4	1	1-3	4
Rubidium	Rb	1	5	1	1-4	5
Cesium	Cs	1	6	1	1-5	6

Periodic Periods (Per 2, 13-17) group # Outer/vale⁻ level

Element	Symbol	Group	Period	Val e⁻	Inner EL	Outer EL
~~Aluminum~~ Boron	~~Al~~ B	13	2	3	1	1
~~Silicon~~ Carbon	~~Si~~ C	14	2	4	1	1
Nitrogen	N	15	2	5	1	1
Oxygen	O	16	2	6	1	1
Fluorine	F	17	2	7	1	1

smallest
Inc. # Period
Inc. Atom Size
~~largest~~ largest
more p⁺ make val e⁻ more p⁺ pull
smaller atom
smallest

Complete the following chart based on the periodic trends for atomic size / ion size

Atomic Size Trends

Define the *group* trends for atomic size	Define the *period* trend for atomic size
Explain the *group trend above*	Explain the *period trend* above

Ion Size Trends

Define the *ion size trend* for *cations* (+ *ion*)	Define the *ion size trend* for *anions* (- *ion*)
Explain the *cation trend above*	Explain the *anion trend* above