

Name _____ Period _____

Freshmen Transition

Assignment 3O – Periodic Trends Part 3 – Periodic Trends Practice

20 Points

*Put the elements given in order based on the periodic trends listed**Group Trends**Elements: O, S, Se (group 6A/16)*

Atomic Trend	Element Order		
Increasing Atomic Size			
Increasing Ionization Energy			
Increasing Metallic Character			
Increasing Electron Affinity			
Increasing Electronegativity			

Elements: Na, Li, Fr (group 1A/1)

Atomic Trend	Element Order		
Increasing Atomic Size			
Increasing Ionization Energy			
Increasing Metallic Character			
Increasing Electron Affinity			
Increasing Electronegativity			

Cation Ion Trends

Atom	Cation	Smaller	Larger
Sodium (Na)	Sodium Ion (Na^+)		
Aluminum (Al)	Aluminum Ion (Al^{3+})		
Sodium Ion (Na^+)	Lithium Ion (Li^+)		
Copper Ion (Cu^{2+})	Zinc Ion (Zn^{2+})		

*Period Trends**Elements: B, C, N (period 2)*

Atomic Trend	Element Order		
Increasing Atomic Size			
Increasing Ionization Energy			
Increasing Metallic Character			
Increasing Electron Affinity			
Increasing Electronegativity			

Elements: Na, Mg, Al (period 3)

Atomic Trend	Element Order		
Increasing Atomic Size			
Increasing Ionization Energy			
Increasing Metallic Character			
Increasing Electron Affinity			
Increasing Electronegativity			

Anion Ion Trends

Atom	Cation	Smaller	Larger
Sulfur	Sulfur Ion (S^{2-})		
Chlorine (Cl)	Chlorine Ion (Cl^{1-})		
Nitrogen Ion (N^{3-})	Oxygen Ion (O^{2-})		
Chlorine Ion (Cl^{1-})	Fluorine Ion (F^{1-})		