Day 1 – Monday 11/4

Valence Electrons in s and p Elements

Directions: Use the periodic table to determine how many valence electrons each element has.

Element	Type	Valence Electrons = ___
Na	s-block	
Mg	s-block	
Al	p-block	
Si	p-block	
P	p-block	
Cl	p-block	
Ar	p-block	

Follow-up Question:
What pattern do you notice as you move left to right across a period in the s and p blocks?

Day 2 – Tuesday 11/5

Noble-Gas Shorthand and Valence for d and f Elements

Directions: Write the noble-gas shorthand electron configuration for each element and state how many valence electrons it has.

Element	Type	Noble-Gas Shorthand	Valence e^-
Fe	d-block		
Cu	d-block		
Ag	d-block		
W	d-block		
U	f-block		

Day 3 – Wednesday 11/6

Matching Lewis Dots to Shorthand Configurations

Directions: Match each **Lewis-dot diagram** (A–E) to its corresponding **shorthand electron configuration** below. Some of these do not match your maps/periodic table so add the electrons.

• Mn •	**[Kr] $5s^1$ $4d^{10}$**
• **Mo**	**[Ar] $4s^2$ $3d^6$**
• **Fe** •	**[Xe] $6s^2$ $4f^1$ $5d^1$**
Ag•	**[Ar] $4s^2$ $3d^5$**
• **Ce** •	**[Kr] $5s^1$ $4d^5$**

Day 4 – Thursday 11/7

Isotopes, Ions, and Electron Counts

Directions: Use the isotope notation to determine how many electrons each atom has.

Symbol	Charge	**# of Electrons = protons - electrons = charge___**
$^{40}Ca^{2+}$	+2	
$^{56}Fe^{3+}$	+3	
$^{35}Cl^{-}$	−1	
$^{27}Al^{3+}$	+3	
$^{19}F^{-}$	−1	

Follow-up Questions:

1. Which type of element tends to form **cations**?

2. Which type tends to form **anions**?