

Name: _____ Mr. Hauptman - Chemistry Date: _____

**Winter Break Optional Assignment - Due: Monday, January 5, 2015
(5 point penalty per day it is late)**

**Essential Question: How can we understand patterns and trends on the Periodic Table?
(This assignment must be hand written, not done on a computer)
Graph paper is preferred but not required.**

I. GRAPH: Atomic Radius versus Period 3 Elements

List elements & their atomic radii	0	1	2	3	4	All elements listed with Atomic Radii
Graph data	0	1	2	3	4	Data plotted accurately and neatly
Appropriate scales	0	1	2	3	4	Axes labeled with correct units
Graph Title	0	1	2	3	4	Accurately describes graph
Trend	0	1	2	3	4	Trend stated correctly
Explanation	0	1	2	3	4	Fully explains why trend occurs
Total	0				24	Full credit

II. GRAPH: Atomic Radius versus Group 2 Elements

List elements & their atomic radii	0	1	2	3	4	All elements listed with Atomic Radii
Graph data	0	1	2	3	4	Data plotted accurately and neatly
Appropriate scales	0	1	2	3	4	Axes labeled with correct units
Graph Title	0	1	2	3	4	Accurately describes graph
Trend	0	1	2	3	4	Trend stated correctly
Explanation	0	1	2	3	4	Fully explains why trend occurs
Total	0				24	Full credit

III. GRAPH: Ionization Energies versus Period 3 Elements

List elements & their atomic radii	0	1	2	3	4	All elements listed with Atomic Radii
Graph data	0	1	2	3	4	Data plotted accurately and neatly
Appropriate scales	0	1	2	3	4	Axes labeled with correct units
Graph Title	0	1	2	3	4	Accurately describes graph
Trend	0	1	2	3	4	Trend stated correctly
Explanation	0	1	2	3	4	Fully explains why trend occurs
Total	0				24	Full credit

IV. GRAPH: Ionization Energies versus Group 2 Elements

List elements & their atomic radii	0	1	2	3	4	All elements listed with Atomic Radii
Graph data	0	1	2	3	4	Data plotted accurately and neatly
Appropriate scales	0	1	2	3	4	Axes labeled with correct units
Graph Title	0	1	2	3	4	Accurately describes graph
Trend	0	1	2	3	4	Trend stated correctly
Explanation	0	1	2	3	4	Fully explains why trend occurs
Total	0				24	Full credit

V. THIS SHEET as your COVER SHEET 0 2 4 This should be your 1st page

Total grade: