Name: _____ Grade: _____

Periodic Trends in Density

Lab Report Grading Guide

Report Item	Possible Points	Points Earned + Comments
Basics	(15)	
Includes name, lab title & lab partner(s)	5	
Turns in the original "Periodic Trends in Density Lab" packet along with the lab report	5	
Lab report is printed, stapled, and turned in at the beginning of class	5	
Introduction	(10)	
Background information on periodic trends	5	
Purpose	5	
Pre-Lab Questions	(20)	
Provides corrected answers to pre-lab questions	5	
Provides a neat and accurate line of best fit graph for question 1 (axes have appropriate spacing, scaling, title, units). The line of best fit is made using a ruler.	10	
Determines the slope of the line	5	
Materials & Procedures	(30)	
List of materials used	5	
Summary of the procedure (do not copy verbatim from the lab handout)	5	

Drawing of experimental set-up	5	
Controlled variables identified	5	
Independent variable identified	5	
Dependent variable identified	5	
Results	(30)	
Writes measurements neatly in data table (using the correct number of **significant digits**)	5	
Provides a graph of the data	5	
Graph has a title that shows the relationship between the variables	2	
Places variables in the correct axes	2	
Labels the axes (provides units)	2	
Scales and spaces the axes appropriately, using most of the graphing space provided	4	
Plots the data points accurately	5	
Identifies the trend in the data using a line of best fit (uses ruler)	5	
Determines the slope of the line (shows calculations)	5	
Conclusion	(55)	
Summarizes the results	10	
Reaches a conclusion based on the data: a. How does the independent variable affect the dependent variable in this experiment? b. Why do you think this is the case? (Think about how mass and volume change in elements as you move vertically down a column of the periodic table)	20	

c. How would you expect density to change as you move left to right (within a period) in the periodic table? Why? d. Compare the slope you obtained in the graph for question 1 of pre-lab questions to the graph you made for your lab data. How do the slopes compare to each other? Why do you think this is?		
Uses the graph to predict the density of germanium	10	
Calculates the percent error between the predicted and actual germanium densities	5	
Identifies sources of error	5	
Recommends improvements	5	
Total points →		
Deduction for lateness → (10 points off per day late)		
Final score →	_____ 160	
<u>Comments</u>:		