Chapter 5 Study Game (PS)

Name: _____

Rules:

1. Read ALL rules before starting.
2. Your group has 25 minutes to complete as many of the following problems as you can.
    a. Your group must designate which sheet is your "final sheet" and which is your "correcting guide"
        i. You will be turning in the "final sheet" to Mr. Gunkelman after the 25 minutes has expired so it MUST be legible
    b. Your group must ALSO designate a "correcting guide" that also contains all of your answers
3. After 25 minutes, you will turn your "final sheet" into Mr. Gunkelman.
4. Mr. Gunkelman will give you another groups sheet and you will use your "correcting guide" to correct their "final sheet"
    a. You will have 10 minutes to complete this
    b. You must correct (with explanation/work) any problems that are wrong
5. After the 10 minutes has expired, combine into a larger group and discuss any wrong answers.

Questions:

1. What determines the chemical properties of an atom? Of a group on the PT?

2. Where are the halogens located?

3. Identify the group and period for the following elements:

Hydrogen:	Group _____ Period _____	Oxygen:	Group _____ Period _____
Silver:	Group _____ Period _____	Mercury:	Group _____ Period _____
Rn:	Group _____ Period _____	Tungsten:	Group _____ Period _____
Carbon:	Group _____ Period _____	Magnesium:	Group _____ Period _____

4. Where are the alkali metals located?

5. What charge with the ion for the following atoms create?

Fluorine:	Aluminum:	Magnesium:
Lithium:	Oxygen:	Br:
Nitrogen:	Sulfur:	Rb:

6. Which are more reactive: (circle the more reactive atom)

Ca vs. Sc	Li vs Sr	Fe vs K

7. Where are the transition metals located?

8. Using the "stair-step line" as a reference, where are the following located?
   a. Metals
   b. Nonmetals
   c. Metalloids

9. Name the elements that are part of the "iron triad".

10. What is an ion?

11. What are the "coinage metals"?

12. Who created the 1st periodic table and how was it arranged? Was there anything wrong with this table, if so what?

13. Where are the alkali metals located and what is the charge of their ions?

14. Give 2 properties for the following:

    a. Metals

    b. Nonmetals

    c. Metalloids

15. Who created the modern periodic table and how is it arranged? Was there anything wrong with this table, if so what?

16. The following atoms have _____ valence electrons.

Fluorine:	Aluminum:	Magnesium:
Calcium:	Carbon:	Neon:
Po:	Helium:	Potassium:

17. The following are true or false questions. If they are false, explain.

True False: The transition metals are located between groups 3 and 13 on the PT

True False: All of the elements in group 1 are alkali metals.

True False: The elements with “flat sides” touching the stair-step line are metalloids

True False: Groups run vertically on the PT

True False: All of the noble gases are in group 18 AND have full outer shells

True False: Potassium and Calcium have similar properties

True False: Positive ions are larger than the atoms they came from
(ex. Lithium Ion is larger than a lithium atom)