The Periodic Table

1. ***The Periodic Law*** states that the properties of elements are periodic functions of their *atomic numbers.*

2. ***Periods*** are horizontal rows on the Periodic Table.

3. ***Groups*** are vertical columns on the Periodic Table.

4. ***Metals*** are found left of the "staircase" on the Periodic Table, ***nonmetals*** are above it, and ***metalloids*** border it.

5. Memorize this chart.

Metals	Malleable	Ductile	Lustrous	Good conductors of heat & electricity	Low ionization energy and electroneg.	Tend to form + ions
Nonmetals	Brittle when solid	Mostly gases at STP	Dull	Good insulators	High ionization energy and electroneg.	Tend to form - ions

6. ***Noble gases*** (Group 18) are inert and stable due to the fact that their valence level of electrons is completely filled.

7. ***Diatomic molecules*** are elements that form two atom molecules in their natural form at STP. Remember the phrase – "7-H Club" (Br_2, I_2, N_2, CL_2, H_2, O_2, F_2)

8. ***Ionization energy*** increases as you go up and to the right on the Periodic Table.

9. ***Atomic radii*** *decrease* left to right across a period due to increasing nuclear charge.

10. ***Atomic radii*** *increase* as you go down a group.

11. ***Electronegativity*** is a measure of an element's attraction for electrons.

12. ***Electronegativity*** *increases* as you go up and to the right on the Periodic Table.

13. The elements in Group 1 are the ***alkali metals***.

14. The elements in Group 2 are the ***alkaline earth metals***.

15. The elements in Group 17 are the ***halogens***.

16. The elements in Group 18 are the ***noble gases***.

17. Use ***Table S*** to compare and look up the properties of specific elements.

USE THE REFERENCE TABLES!!!