

Periodic Table Study Guide

Directions: Please use this packet as practice and review. DO NOT try to answer these questions during presentations, take notes on your brochure instead. Complete this worksheet between presentations in class and at home as homework. I will give an extra credit stamp each day for completed sections. The entire worksheet will be due on the day outlined in your timeline.

Periodic Law/History of the Periodic Table

1. Label the following on the periodic table at the back of the packet: **period, series, group, family, and atomic number**. In addition, **number each period and family** correctly.
2. _____ A horizontal row of blocks on the periodic table is called a(n): (a) group, (b) period, (c) family, (d) octet.
3. _____ Mendeleev's table was called periodic because the properties of the elements: (a) showed no pattern, (b) occurred at repeating intervals called periods, (c) occurred at regular time intervals called periods, (d) were identical.
4. _____ The periodic law allows some properties of an element to be predicted based on its: (a) position in the periodic table, (b) number of isotopes, (c) symbol, (d) color.
5. _____ Moseley discovered that elements with similar properties occurred at regular intervals when the elements were arranged in order of increasing: (a) atomic mass, (b) density, (c) radioactivity, (d) atomic number.
6. Name an imaginary element with the atomic number of 202. _____. The following table may help you.

0- Nil	5- Pent
1- Un	6- Hex
2- Bi	7- Sept
3- Tri	8- Oct
4- Quad	9- Ein
7. What is the atomic number of Unnilquadium? _____
8. _____ The periodic law states that the physical and chemical properties of elements are periodic functions of their: (a) masses, (b) atomic numbers, (c) radii, (d) structures.
9. _____ All of the following follow the periodic law except: (a) valance electrons, (b) electron configurations, (c) chemical and physical properties, (d) atomic number, (e) symbols and names.
10. In the periodic table, the atomic masses of Te and I decrease rather than increase, while their atomic numbers increase. This phenomenon happens to other neighboring elements in six other places on the periodic table. Name two of the sets of elements, more for bonus points.

Alkali/Alkaline Earth Metals

1. Color the alkali metals **orange**, and the alkaline earth metals **green** on the periodic at the back of the packet. Draw a key at the bottom of the page that identifies the meaning of each color. Continue expanding this key as you add to the table. Draw an arrow that shows increasing reactivity in the two families.