

Periodic Table Review Sheet
Quantitative Chemistry

1. These 2 people were credited with the development of the periodic table:

Mendeleev and Moseley

2. Columns on the periodic table are called groups. Rows are called periods.

3. Define the following: Refer to your packet

- a. Ores - _____
- b. Alloys - _____
- c. Malleability - _____
- d. Ductility - _____
- e. Metalloids - _____

4. Identify the following elements as metals, nonmetals, or metalloids. Circle your choice below.

a. Sulfur	METAL	NONMETAL	METALLOID
b. Zinc	METAL	NONMETAL	METALLOID
c. Sodium	METAL	NONMETAL	METALLOID
d. Arsenic	METAL	NONMETAL	METALLOID

5. List the 4 groups of metals.

- a. Alkali Metals
- b. Alkaline Earth Metals
- c. Transition Metals
- d. Rare Earth Metals

* Which of the above groups is the most reactive? Why? Alkali - Have 1 valence (outer shell) electron that it needs to lose to have a "full" outer shell

* Which of the above groups contain the lanthanides and actinides? Rare Earth Metals

6. What are 4 properties of metals? Refer to your packet

- a. _____
- b. _____
- c. _____
- d. _____

Make sure you know what each one means.

* List 2 examples of alloys. Bronze and Steel.

What are they made of? Cu & Sn C & Fe

* Refer to Packet for other examples

8. Name the 5 nonmetal groups.

a. Carbon Group

d. Halogen

b. Nitrogen Group

e. Noble Gases

c. Oxygen Group

* Which of the above groups is the most reactive? Why? Halogen - Has 7 valence (outer shell) electrons and only needs to gain 1 more electron

* Which of the above groups is the least reactive (inert)? Why? Noble Gas - Have a "full" outer shell and do not need to gain or lose any more electrons

* What nonmetal does not belong to any of these groups? Hydrogen

9. List the groups whose elements form the following ions:

a. +2 ions Alkaline Earth Metal

c. -1 ions Halogen

b. +1 ions Alkali Metals

d. -2 ions (Chalcogen) Oxygen Group

10. On the space provided, write the group (such as alkali metals) to which each element belongs.

a. Silver Transition Metal

f. Thorium (Th) Rare Earth Metal

b. Potassium Alkali Metal

g. Magnesium Alkaline Earth Metal

c. Chlorine Halogen

h. Selenium (Chalcogen) Oxygen Group

d. Nickel Transition Metal

i. Nitrogen Nitrogen Group

e. Neon Noble Gas

j. Copper Transition Metal

11. Circle the atom that is the largest in each set:

a. C or (Si)

b. (C) or O

c. (Na) or Mg

12. Circle the atom that has the highest electronegativity value in each set:

a. (C) or Si

b. C or (O)

c. Na or (Mg)

13. How is ionization energy different from electronegativity? Are the trends the same?

Refer to your packet

13. Explain why size increases going down a column, but decreases going across a row.