<u>Periodic Trends Workbook Review</u> pgs 196

1

a. metals
b. nonmetals
c. nonmetals
d. metals
e. nonmetals
f. metalloids
g. metals
h. metals
i. metals
j. metals
k. metals
l. nonmetals
m. metals
n. metals
o. nonmetals
p. nonmetals
q. nonmetals
r. metals

2

Carbon - solid, brittle, poor, high, high, lose/gain
Silver - solid, malleable, good, low, low, lose
Magnesium - solid, malleable, good, low , low, lose
Iodine - solid, brittle, poor, high, high, gain
Sulfur - solid, brittle, poor, high, high, gain
Gold - solid, malleable, good, low, low, lose
Iron - solid, malleable, good, low, low, lose
Bromine - liquid, N/A, poor, high, high, gain
Argon - gas, N/A, poor, N/A, high, N/A,
Hydrogen - gas, N/A, poor, high. low, lose
Mercury - liquid, N/A, good, high, low, lose

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Periodic Law
a. proton
b. it was based on atomic mass

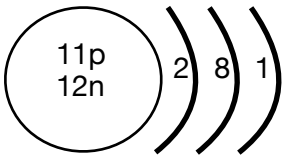
Metals, Nonmetals & Metalloids
a. shiny
b. moldable or bendable
c. can be changed into wire
d. Cu

Nonmetals
a. C
b. has properties of nonmetals, poor conductor/gas

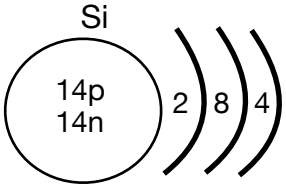
Metalloid
a. metal
b. Si
c. Na
d. Mg
e. S
f. Cu
g. Ge

Groups & **Periods**

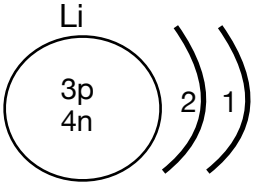
Na



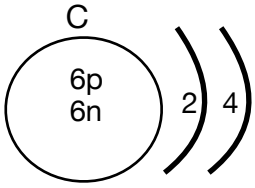
Si



Li



C



b. Ca, Mg

a. Full valence shell, 8 val. electrons
b. Cu
c. Cl
d. Ca
e. Rn
f. Cs
g. F

Atomic Radius

a. Li 130. Be 99 B 84 C 75 N 71 O 64 F 60 Ne 62
b. decreases, valence electrons are more attracted to the increasingly positive nucleus
c. Na 160. Li 130. K 200. Rb 215 Cs 238
d. increases, an energy shell keeps being added
e. Fr, He

Electronegativity

a. Li 1.0 Be 1.6 B 2.0 C 2.6 N 3.0 O 3.4 F 4.0 Ne 0
b. increases, in the same period, the more positive the nucleus is, the stronger it's attraction for another atom's valence electrons
c. Na 0.9 Li !.0 K 0.8 Rb 0.8 Cs 0.8
d. decreases, shielding from lower energy levels decreases the nucleus' attraction for other atom's valence electrons
e. full valence shell, unreactive, stable
f. Fluorine

Ionization Energy

a. 1
b. 7
c. -2, anion (nonmetal)
d. +2, cation (metal)

a. Li 520 Be 900 B 801 C 1086 N 1402 O 1314 F 1681 Ne 2081
b. increases, an increasing positive nucleus has a stronger attraction for it's valence electrons
c. Na 496 Li 520 K 419 Rb 403 Cs 376
d. decreases, valence electrons are further from the nucleus creating a decreased attraction to the nucleus
e. F, Cs