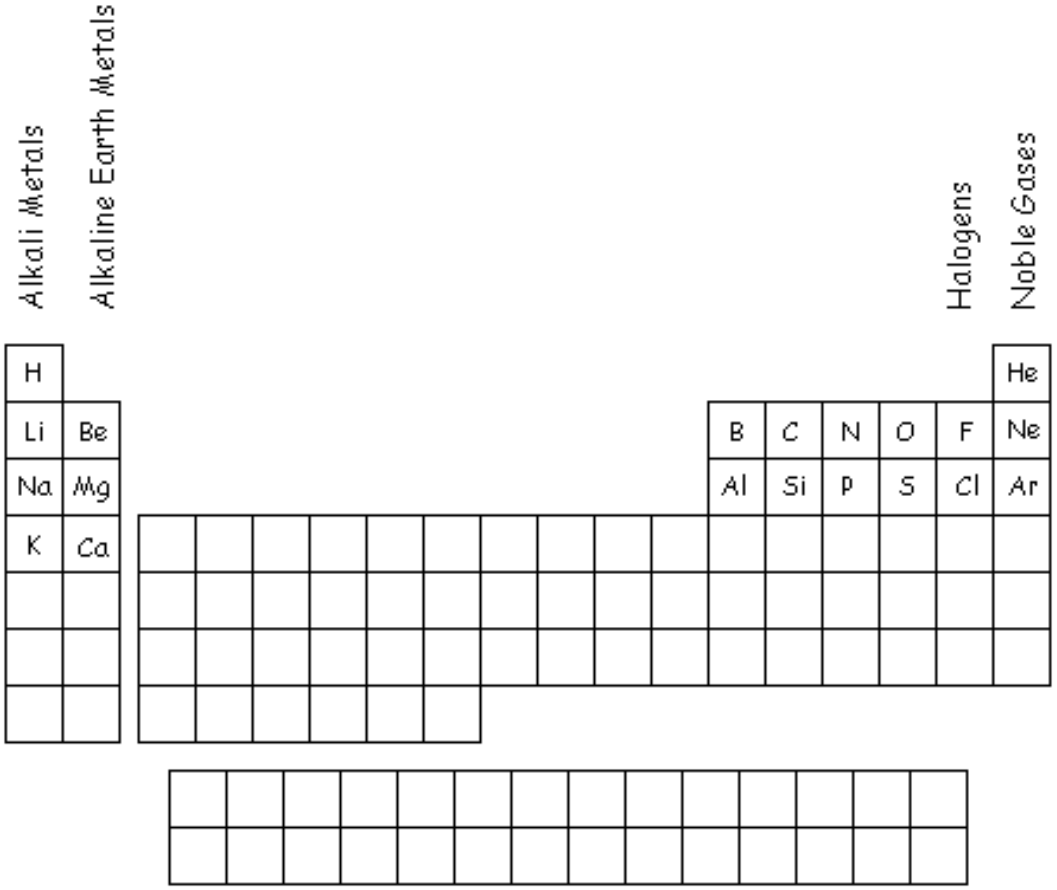
SNC1P

Bohr Diagrams and the Periodic Table

1) Draw the dots for only the outer electron shell of the Bohr diagram for each of the labelled elements.



Early chemists made compounds for most of the first 20 elements:

Compounds with Chlorine	Compounds with Oxygen
HCl,	H_2O,
LiCl, $BeCl_2$, BCl_3, CCl_4, NCl_3, OCl_2, FCl,	Li_2O, BeO, B_2O_3, CO_2, N_2O_3, OO, F_2O,
NaCl, $MgCl_2$, $AlCl_3$, $SiCl_4$, PCl_3, SCl_2, ClCl	Na_2O, MgO, Al_2O_3, SiO_2, P_2O_3, OS, Cl_2O
KCl, $CaCl_2$	K_2O, CaO

2) Do the elements in the same column make compounds with similar chemical formulas?

3) Which elements are not listed above, because they do not form compounds?

Read the margin notes on pages 314 and 315.

4) What is the chemical property of Noble Gases?

5) What do the Bohr diagrams of the Noble Gases have in common?

6) For the rest of the periodic table (not including Noble Gases),

a) Where are the most reactive elements found?

SNC1P Name: _____

Electrons and Chemical Properties

1) Chemical properties of elements are determined by the number of outer shell _____. The goal of all atoms is to get a full or empty outer shell of electrons.

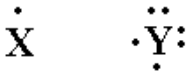
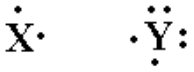
2) Metals _____ electrons to get an _____ outer shell.

3) Non-metals _____ electrons to get a _____ outer shell.

4) Non-metals also can _____ electrons to get a _____ outer shell.

5) The combining capacity is the number of electrons needed to _____, _____, or _____ to get a full or empty outer electron shell.

6) Complete the following chart:

Atoms	How the Atoms will Bond	Formula	Possible Real Example
a 			
b 			
c 			
d 			
e 			
f 			
g 			
h 			

7) In which of the parts of question 6 is element X a metal?

8) In which of the parts of question 6 is element X a non-metal?

9) Can the following pairs of atoms make a chemical compound? Why?