

CHEMISTRY
LEWIS DOT STRUCTURES WORKSHEET
ATOMS AND IONS

Remember, when we were talking about the structure of atoms and using the quantum mechanical model of the atom, we talked a lot about the valence electrons of atoms. Let's refresh our memories about that concept.

I) Define valence electrons.

II) Write the electron configuration of the following elements:

1) Be

2) N

3) Mg

4) P

II) Go back to the four elements in II. Underline the valence electrons for those elements.

III) Look again at the elements in II. Now look at the periodic table (either on the ceiling or on the wall of the room). How else can you determine the valence electrons for those elements?

IV) RT is sure that you noticed that element in II 1 & 3 and II 2 & 4 were in the same family. What can you say about the number of valence electrons elements in the same family?

V) Now, copy the symbols of the elements from II 1 – 4 again. (Give some room between the symbols.) Place one dot around each symbol for each of the valence electrons for that element.

Yes! You have just drawn your first Lewis dot structure for some elements!

VI) Now, draw the Lewis dot structure for the following elements:

5) Na

6) sulfur

7) Aluminum

8) Bromine

9) Antimony

10) O