

# Worksheet No. 2

Chemistry 11

Name Key

CH 12 - Chemical Bonding

## Electron Dot (Lewis) Structures

1. Write the electron configurations and draw electron dot structures for the following elements.

Li	$1s^2 2s^1$	Li •
Be	$1s^2 2s^2$	• Be •
N	$1s^2 2s^2 2p^3$	• N •
F	$1s^2 2s^2 2p^5$	• F •
Ne	$1s^2 2s^2 2p^6$	• Ne •
Cl	$1s^2 2s^2 2p^6 3s^2 3p^5$	• Cl •

a) What does the Lewis structure for Neon relate to what we know about its reactivity?

*It has no need to share electrons to form bonds, Ne doesn't react.*

b) Compare electron structures for chlorine and fluorine. What do you see?

*They have the same number of dots, or valence electrons.*

2. Using what you have learned about the octet rule, draw the electron dot structures for the following molecules.

	H <sub>2</sub> O	SiF <sub>4</sub>	C <sub>3</sub> H <sub>8</sub>
1. The number of atoms of each element	H 2 O 1	Si 1 F 4	C 3 H 8
2. Atom arrangement			
3. Total number of dots per element	H 1 O 6	Si 4 F 7	C 4 H 1
4. Dot arrangement			

