

## Lewis Dot Structure NOTES

Lewis Dot Structures are an easy way to represent the valence electrons of an atom.

Valence electrons are those electrons that are found in the outermost shell (the last shell or energy level) of an atom.

A fast way to determine the number of valence electrons for a given element is to look at the group (within the periodic table). Within a group, the number of valence electrons remains the same. For example, Hydrogen, Lithium, and Sodium all have 1 valence electron. Fluorine, Chlorine, and Bromine have 7 valence electrons.

Valence electrons examples:

Hydrogen – 1	Nitrogen- 5
Beryllium – 2	Oxygen- 6
Boron – 3	Fluorine- 7
Carbon – 4	Neon- 8

In order to draw a Lewis Dot Structure you need the element symbol and the number of valence electrons. Each valence electron is represented with a dot.

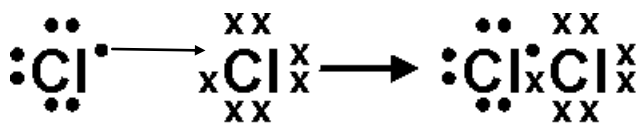


Directions: Fill in the Lewis Dot Structure for each of the elements in the table below.

1. <b>B</b>	2. <b>Na</b>	3. <b>Sn</b>	4. <b>K</b>	5. <b>I</b>
6. <b>He</b>	7. <b>Ge</b>	8. <b>Kr</b>	9. <b>Ga</b>	10. <b>S</b>
11. <b>Si</b>	12. <b>C</b>	13. <b>Li</b>	14. <b>Cl</b>	15. <b>As</b>
16. <b>P</b>	17. <b>Rn</b>	18. <b>Mg</b>	19. <b>Xe</b>	20. <b>Al</b>
21. <b>F</b>	22. <b>Sb</b>	23. <b>Br</b>	24. <b>In</b>	25. <b>Be</b>

**Directions:** draw the Lewis dot structure for each compound.

Example:  $\text{Cl}_2$



1.  $\text{HCl}$

2.  $\text{BeF}_2$

3.  $\text{H}_2\text{O}$

4.  $\text{PCl}_3$