



## Drawing Lewis Structures (electron dot diagrams)

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## Drawing Lewis Structures Step #1

- Decide which atoms are bonded (reasonable skeleton)- central atom usually more metallic, or less electronegative



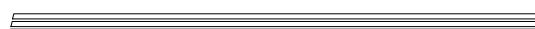
## Drawing Lewis Structures Step #2

- Count the valence electrons you have, subtract from how many you want, then divide by 2- gives number of bonds



## Drawing Lewis Structures Step #3

- Count all valence electrons- these must be shown in the final diagram



## Drawing Lewis Structures Step #4

- Place 2 electrons in each bond between atoms (remember that they all will have at least a single bond)



## Drawing Lewis Structures Step #5

- Complete the octets of the atoms attached to the central atom, by adding  $e^-$  in pairs





*Drawing Lewis Structures*  
Step #6

- Place any remaining electrons on the central atom, in pairs



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Step #7

- If the central atom does not have an octet, form double or triple bonds (may be necessary to form coordinate covalent bond)



*Drawing Lewis Structures*

- Examples:  $\text{HClO}_3$  and  $\text{SO}_3$

