

LEWIS STRUCTURES WORKSHEET**Determining Bond Type:**

Use your knowledge of electronegativity to determine whether bonds within the following molecules would be covalent, polar-covalent, or ionic.

- | | |
|----------------------|-----------------------------------|
| a) Na ₂ O | d) Al ₂ O ₃ |
| b) RbBr | e) NF ₃ |
| c) Cl ₂ | f) SCl ₄ |

Ionic Bonds

Each of the following molecules contain an ionic bond between atoms.

- i) Draw the Lewis structures for each molecule.

- | | |
|---------------------|----------------------|
| a) MgS | f) MgI ₂ |
| b) CaF ₂ | g) Li ₃ P |
| c) KI | h) SrBr ₂ |
| d) LiBr | i) BaCl ₂ |
| e) K ₂ O | j) K ₂ S |

Covalent Bonds:**PART A**

Each of the following molecules contain only single bonds between atoms. .

- i) Draw the Lewis Structure for each molecule.

- | | | |
|----------------------------------|----------------------|-----------------------------------|
| a) Cl ₂ | f) HCl | k) CHCl ₃ |
| b) ICl | g) CH ₄ | l) S ₂ Cl ₂ |
| c) H ₂ O | h) NF ₃ | m) Br ₂ |
| d) PH ₃ | i) Cl ₂ O | n) SiF ₄ |
| e) H ₂ S ₂ | j) PCl ₃ | |

PART B

Each of the following molecules may contain single, double or triple bonds..

- i) Draw the Lewis Structure for each molecule.

- | | |
|-----------------------------------|----------------------------------|
| 1) CS ₂ | 4) I ₂ |
| 2) C ₂ Br ₂ | 5) O ₂ |
| 3) BrCl | 6) N ₂ H ₂ |