**VSEPR WORKSHEETS**

**COMPOUND IONIC CHARACTRER CLASSIFICATION**

**VSEPR CHECKLIST**

1. **ADD VALENCE ELECTRON TOTAL OF GROUND STATE ATOMS**
   1. **ADD ONE ELECTRON FOR EACH NEGATIVE CHARGE.**
   2. **SUBTRACT ONE ELECTRON FOR EACH POSITIVE CHARGE.**
2. **IDENTIFY CENTRAL ATOM.**
   1. **USUALLY IT IS THE LEAST ELECTRONEGATIVE.**
   2. **HYDROGEN CANNOT BE CENTRAL.**
   3. **HALOGENS USUSALLY ARE NOT CENTRAL.**
3. **MAKE A PRELIMINARY DRAWING BONDING THE CANTRAL ATOM TO LIGANDS.**
   1. **SUBTRACT TWO ELECTRONS FOR EACH BOND FROM VALENCE ELECTRON TOTAL FROM 1).**
   2. **COMPLETE THE OCTET OF LIGANDS BY ADDING DOTS, SUBTRACT THESE ELCTRONS FROM THE ELECTRONS THAT REMAIN IN 3)a.**
   3. **ANY ELECTRONS THAT REMAIN ARE PLACED ON THE CENTRAL ATOM.**
4. **USE THE VSEPR CHART TO FIND THE GEOMETRY AND DRAW THE MOLECULE IN ACCORDANCE.**
   1. **ADD A POSITIVE POLE SYMBOL TO THE LEAST ELECTRONEGATIVE ATOM(S) (δ+).**
   2. **ADD A (δ-) SYMBOL TO THE MOST ELECTRONEGTATIVE ATOMS(S).**

**VALENCE ELECTRON TOTAL**

**PRELIMINARY DRAWING (BONDS) PRELIMINARY DRAWING (OCTETS) FAMILY:**

**BONDS:**

**PAIRS:**

**GEOMETRY**

**POLARITY SUMBOLS AND 3D PERSPECTIVE**

**ARE THE BONDS POLAR, IF YES THEN… IS THE MOLECULE ASYMMETRICAL IF YES… THE MOLECULE IS POLAR.**