Ionic Compounds	Molecular Compounds	Similarities
Formed from a metal and non metal	Made from two non metals	Both achieve stability through a stable octet structure
Formed by electron transfer	Formed by electron sharing	Both include a non metal
Exists as a lattice of cations and anions	Does not have any ions	Both connect two or more elements together
No pre fix in naming	Use a pre fix naming system	
Hard and brittle	Can be hard, soft, brittle or anything	
High melting and boiling points	Melting and boiling points vary	
All exists as solids at room temperature	Can be solid, liquid or gas	
Fundamental unit: Formula unit	Formula Unit: Molecule	

Electronegativity
- A measure of an atom's ability to attract electrons to itself.
- Similar concept to electron affinity but uses a scale from zero to four
- Fluorine has the highest electronegativity of 4 since it has the greatest ability to attract electrons to itself

Using the Electronegative Scale
- Anything in between 0 and 0.5 is non polar covalent
- Anything in between 0.5 and 1.7 is polar covalent bond
- Anything in between 1.7 and 1.9 could be covalent or ionic (Grey area)
- Anything in between 1.9 and 4 is an ionic bond

Polar Molecules
- Their structure has one positive end and one negative end
- Must have an electronegative difference between 0.5 ——> 1.7

Polar Molecular Shapes
- Tetrahedral (Angles formed are 109 degrees) E.g CH4
- Trigonal Pyramidal (Angles Formed are 107 degrees) This shape when theres a loan pair
- Linear (Angles formed are 180 degrees) Caused when theres no loan pairs
- Bent (Angles formed are 104 degrees) Caused when theres two loan pairs
- Trigonal Planar (Angles formed are 120 degrees) Caused when theres no loan pairs and 3 bonds

Intermolecular Forces
- The Attractive forces between molecules
- Very different from Intramolecular forces which holds molecules together