

## Ionic and covalent compounds- A comparison

	Covalent	Ionic
Formed between	Non -metals	Metals and non-metals
Melting points and boiling points	Low melting and boiling points because the intermolecular attractive forces are very weak. Exceptions are: $\text{SiO}_2$ with a high melting point	High melting and boiling points because of strong electrostatic forces between the ions in the giant lattice
Solubility	Insoluble in water ( Exceptions: sugar and amino acids-water soluble)	Soluble in water because the water molecules are able to separate the ions from one another and keep them in the solution.
Electrical conductivity	Do not conduct electricity because they have no ions. Hydrogen chloride gas, a covalent compound reacts with water to form HCl acid which splits up into ions.	They conduct electricity in the molten or aqueous form due to the presence of mobile ions.