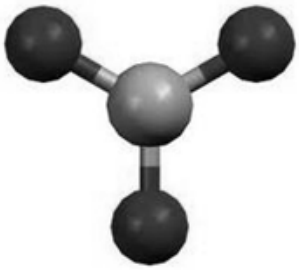
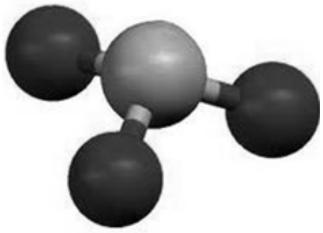
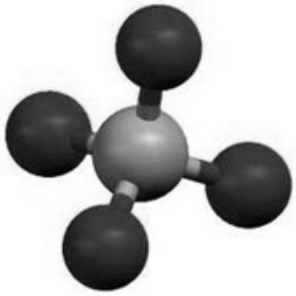
diagram showing bonding between atoms in molecule, and any lone pairs of electrons in the molecule	2 or more atoms held together by covalent bonds	bond between two atoms containing more than one pair of electrons – can be double or triple	small covalent molecules e.g. H_2O, $C_6H_{12}O_6$ and CO_2
Lewis structure	molecule	multiple bond	molecular covalent
crystal lattice of ions held together by electrostatic attractions	metal atoms held together by metallic bonding	many atoms in a regular 3D lattice held together by covalent bonds e.g. diamond & SiO_2	charged particle (formed when atom or group of atoms lose or gain electrons)
ionic solid	metallic solid	covalent network (giant)	ion
smallest part of an element that can take part in a chemical reaction	bond between ions due to attraction between oppositely charged particles	bond formed between metal atoms in a metallic lattice	bond between two atoms formed by the sharing of a pair of electrons
atom	ionic bond	metallic bond	covalent bond
name for the weak attractive force between molecules	A group 17 element e.g. F_2, Cl_2, Br_2, I_2	compound formed when a halogen reacts with another element, e.g. chlorides, bromides	shape of a molecule, atoms in a straight line e.g. CO_2
weak intermolecular forces	halogen	halides	linear

shape of a molecule, meaning bent or V shaped e.g. H_2O			
angular	trigonal planar	trigonal pyramidal	tetrahedral
valence shell electron pair repulsion theory – theory used to predict shape of molecules	a separation of electric charge leading to a molecule being polar	tendency of an atom to draw the electrons, in a bond, toward itself	the movement of charged particles: electrons or ions that are free to move
VSEPR theory	dipole	electronegativity	electrical conductivity
molecule with polar bonds or molecule where the polarity of several bonds does not cancel out	molecule with no polar bonds or molecule where dipoles cancel out	molecule containing hydrogen and carbon atoms only	molecule with an overall unequal distribution of charge
polar molecule	non-polar molecule	hydrocarbon	polar molecule
substance that will dissolve in a solvent	substance, usually a liquid, that will dissolve another substance (the solute)	the positive and negative ends of a polar bond or molecule; a separation of charge	bonding of atoms in 3D lattice with valence electrons attracted to the positively charged nuclei of neighbouring atoms
solute	solvent	dipole	metallic bonding