

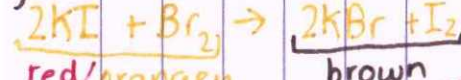
* A more reactive halogen will displace a less reactive halogen from a solution

Eg. Chlorine + Potassium Bromide



colourless red/brown

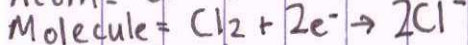
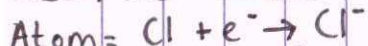
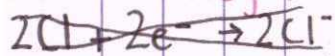
Eg. Bromine + Potassium Iodide



red/orangey

Ions

* Halogens gain 1 electron to form a negative ion.



* Reactivity

They are the most reactive group in the PT.

Reactivity decreases as you go down the group

It gets harder to attract an electron

Fluorine = pale yellow gas

Chlorine = pale green gas

Bromine = red/brown liquid

Iodine = dark grey sublimes to purple vapour

F
Cl
Br
I

Brown solution

Storage = All metals are kept under oil

Reactivity = reactivity increases down the group, as it gets easier to lose an e⁻



1) As Bleaching Agents

* used to bleach cotton or paper

* used to manufacture PVC

2) Kill Bacteria

* Cl added to pools and H₂O
* sterilises H₂O by killing bacteria

3) Lamps

* halogen lamps are very bright

John Newlands = he put elements in order of atomic mass. He found every eighth element had similar chemical properties



= Law of Octaves

Dmitri Mendeleev = arranged elements in order of atomic mass + started new rows for elements that were alike line up.

* Modern PT is arranged by atomic mass

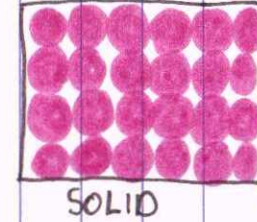
Solid/liquid/gas

Forms a positive ion K⁺ or Li⁺

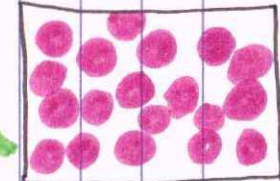
Group 1

* They all react with water to form hydrogen + a colourless alkali

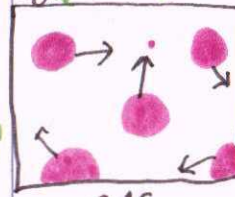
- Reactions with water
- 1) Lithium = floats on surface, moves around, heat, fizzes
 - 2) Sodium = floats/moves/fizzes moves around melts into ball
 - 3) Potassium = floats/moves/fizzes/hydrogen ignites - lilac flame
 - 4) Caesium = very reactive = EXPLOSIVE



SOLID



LIQUID



GAS

ENDO MELTING

ENDO FREEZING

Sublimation

ENDO evaporation

EXO condensation

- * In the PT 11 are gases, 2 are liquids and 90 solids
- * All metals are solid bar Hg
- * Silicon + Germanium = semi-metals

Preview from Notesale.co.uk Page 1 of 2

The Periodic Table