Hanzalah Revision
Chemistry

Groups in the periodic table

Why can some elements be classified as alkali metals, halogens or noble gases ?

- Elements are classified by their group in a Periodic Table
- Group 1 contains alkali metals
- group 7 contains halogens
- group 0 contains Nobel gases

What are the physical properties of alkali metal?

- Alkali metals are soft
- they have low density
- they have low melting point
- they are Shiny when cut

What are the reactions of lithium Sodium and potassium with the water

- Lithium fizzes gently
- sodium melts into the ball and move quickly
- potassium burns with the lilac flame

What is the pattern in reactivity of lithium Sodium and potassium with the water

- Reactivity increases down the group
- Lithium is the least reactive and potassium is more reactive

When does this pattern happen electronic configuration

- Atom lower in group have more shells
- Their outer electron is further from the nucleus
- It is lost more easily so reactivity increases

What are the colours and physical states of chlorine bromine and iodine

- Chlorine is green gas
- bromine is brown liquid
- iodine is grey solid

What is the pattern in the physical properties of halogens

- They become darker in colour down the group
- There state changes from gas to liquid to solid

What is the chemical test for chlorine

- Chlorine turns damp blue Litmus Paper red then white

What are the reactions of halogens with the metal

Halogens reacts with metals to form metals halides

What happens when halogen react with hydrogen

- They form hydrogen halides
- these dissolve in water to form acidic solutions

What is the relative reactivity of chlorine bromine and Iodine

- Chlorine is the most reactive
- bromine is the less reactive
- iodine is the least reactive

How do displacement reactions show halogen reactivity

A more reactive halogen displaces are react less reactive halide ion from a solution

Why are these displacement reactions redox reactions

the halogen gain electrons and is reduced
the halide ions loses electrons and is oxidized

Why does halogen reactivity decreases down the group

- Atoms get bigger down the group
- the outer shell is further from the nucleus
- they gain an electron less easily

Why are noble gases chemically inert

- they have full outer shells
- they do not need to gain or lose electrons

How do the uses of noble gases depend on their properties

- they are used because they are inert non flammable and have low density

What is the pattern in the physical properties of noble gases

- they get denser down the group
- they have slightly higher boiling points down the group