Science Revision

C4 Retrieval Questions

**Periodic Table:**

How is the modern Periodic Table ordered?

**The modern Periodic Table is ordered by atomic number.**

How were the early lists of elements ordered?

**The early lists were originally ordered by mass.**

Why did Mendeleev change the order of some elements?

**Mendeleev changed the order of some elements to match their chemical properties.**

Why did Mendeleev leave some gaps in his version of the Periodic Table?

**Mendeleev left gaps in his version of the periodic table for elements that he had predicted but had not yet been discovered.**

Why do elements in a group have similar chemical properties?

**Elements in the same group have similar chemical properties because they have the same number of electrons in their outermost shell.**

Where are Metals and Non-Metals located in the Periodic Table?

**Metals are located on the left of the periodic table, whilst non-metals are located on the right.**

**Alkali Metals**

What name is given to the Group 1 elements?

**The Group 1 elements are called the Alkali metals**

Why are they called that?

**They are called the Alkali metals because they react with water to form an Alkali.**

How does the reactivity of the Alkali metals change down the group?

**The reactivity of the Alkali metals increases down the group.**

Why does it increase?

**It increases because it becomes easier for the atoms to lose electrons as they are further away from the attractive force of the nucleus.**

**The Halogens**

What are the Group 7 element called?

**The Group 7 elements are called the Halogens**

List the first 4 Halogens

**The first 4 halogens are Florine (F2), Chlorine (Cl2), Bromine (Br2), and Iodine (I2).**

How does the melting point of the halogens change going down the group?

**The melting point of the Halogens increases down the group (the melting point gets higher).**

How does the reactivity of the Halogens change down the group?

**The reactivity of the Halogens decreases down the group**

Why does the reactivity decrease down the group?

**The reactivity decreases down the group because the electrons being attracted in the reaction are further away from the attraction of the nucleus.**

What is a displacement reaction?

**A displacement reaction is a reaction where a more reactive element takes the place of a less reactive element in a compound.**

What are the Group 0 elements called?

**The Group 0 elements are called the noble gases.**

Why are the noble gases inert (unreactive)?

**The noble gases are inert because they are stable – they have a full outer shell of electrons so do not react to gain or lose any.**

How do the melting points of the noble gases change down the group?

**The melting points of the noble gases increases down the group.**