Chemistry

History of the atom

- The model of atom has changed over the time
- In a early 1800s John Dalton said all atoms of same element are identical
- In 1897 JJ Thomson discovered electron And he made the plum pudding model where charges are spread evenly in the atom
- In 1911 Ernest Ratherford with Gigar and Marsden found that atom has a dense Centre called nucleus by firing Alpha particles at gold foil
- In 1913 Niels Bohr said that electrons move in energy levels or orbitals

Mass number and atomic number

Atomic number

- Atomic number is the number of protons
- If an element has 11 protons so atomic number will be 11
- Atomic number is represented by Z

Mass number

- Mass number is the number of protons and neutrons in the atom
- Mass number is represented by A

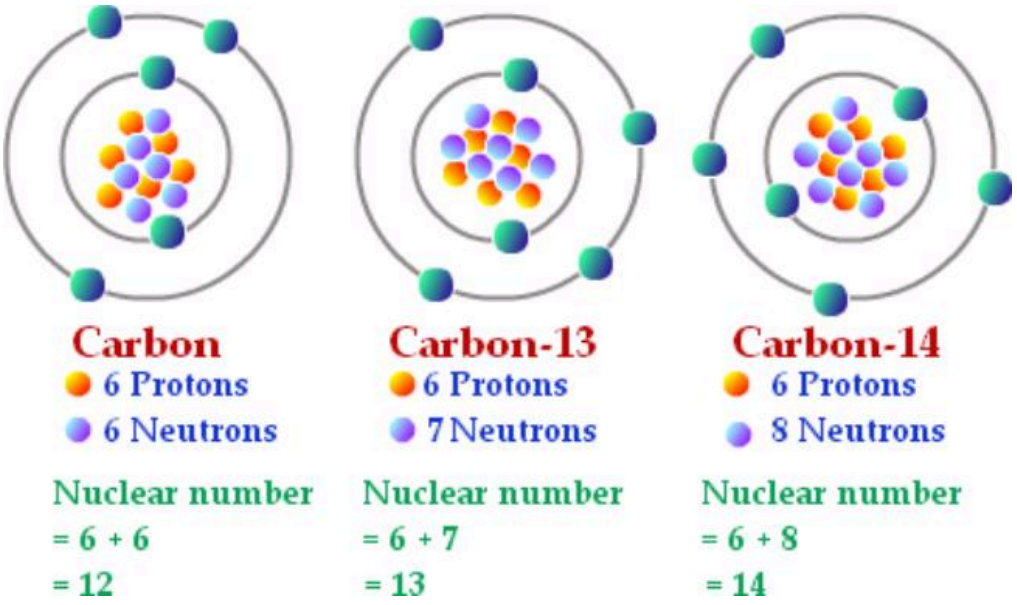
- Ions formed when an atom gains or loses electrons
- Isotopes are the atoms of same element

Isotopes have same atomic number but different mass number

Example carbon isotopes

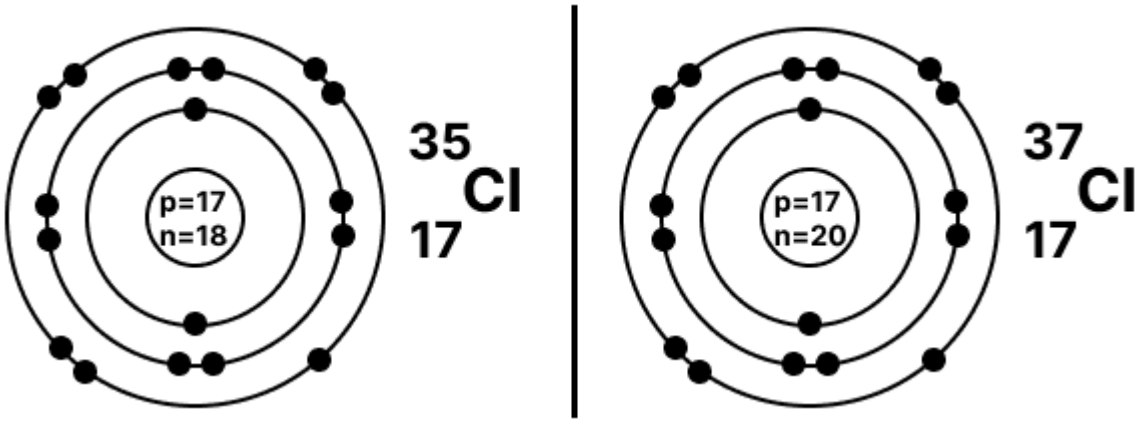
Carbon has the mass number of 12

Atomic number of carbon is 6



Chlorine isotopes

Chlorine mass number is 35 and atomic number is 17



What are isotopes

Atoms of same element with same atomic number but different mass number

How many neutrons does an element have with the mass number of 14 and atomic number of 6

Mass number = Neutrons + Protons

8 neutrons