Particle	Relative mass	Relative charge	Location
Protons	1	+1	Inside the nucleus
Neutrons	1	Neutral	Inside the nucleus
Electrons	1/1840 or 0	-1	Outside the nucleus

Atoms (contd.)

- NB Each shell is a fixed distance from the nucleus, they form a series of concentric spheres around the nucleus.
- The shells become nearer to each other as their distance from the nucleus increases.

- Number of electrons/number of protons =

  mass number-number of neutrons

Ions

- A particle is described as an **ion** rather than an atom when the number of electron(s) is not equal to the number of protons.
- i.e The charges of the sub-atomic particles do not cancel each other out.

End