Atoms - Adapted

An ATOM is so small we cannot really see one;

Think of a ball with a diameter of 0.000 000 1 mm

1 [diameter = distance across a ball]

10,000,000 mm

An ATOM has a mass – very small, but it has a mass.

An ATOM is made up of “sub-atomic particles”.

You need to know three of them;

Protons

The part where most of the mass of an atom is. They are found in the centre of the atom. We call the centre of an atom the “NUCLEUS of the atom”. Protons have a POSITVE charge (like a magnet) – pr**O**t**O**n has “o” in it, just like p**O**sitive does. The ATOMIC NUMBER of the ELEMENT is decided by the number of PROTONS the atoms of the element have.

Electrons

Electrons fly around the outside of an atom. Electrons have no mass, and they have a NEGATIVE charge - ‘n**E**gative’ has an ‘E’ in it, just like ‘**E**l**E**ctron’ does.

Neutrons

Neutrons exist in the centre (nucleus) of the atom with the protons. They have NO CHARGE.

Now for ‘energy levels’

The electrons fly around the outside of the nucleus, kind of like satellites around the Earth.

Closing notes

As you go through school, you will discover that these definitions are really simplified and that electrons can be shared between atoms (we call this “chemical bonds)…. complicated, but really cool!