

Electrons form a "cloud" around the nucleus

→ electron cloud

Identified by protons → (in the periodic table)

nucleon numbers → n

electrons → e or n

→ Atoms of the same element have the same number of protons
in the nucleus

→ The number of protons = the atomic number of an element
and identifies it

→ Atomic number given on periodic table

→ Number of protons + number of electrons = create neutral atom

→ When atomic number is fixed you know how many electrons

it has

→ Number of neutrons may vary

Mass Number

→ Mass number = # protons + # neutrons

→ "Atomic Mass," "Atomic weight"

→ The Periodic Table lists the average atomic mass for each element

→ Number of neutrons vary among atoms

Atomic weight is → Atomic number

atomic → Z → ${}^A_Z\text{X}$

→ (Z, A, X)

Examples