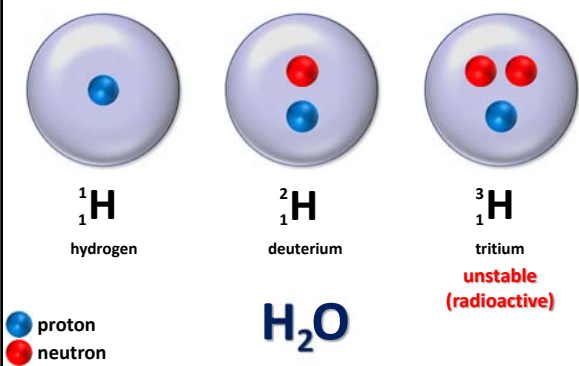
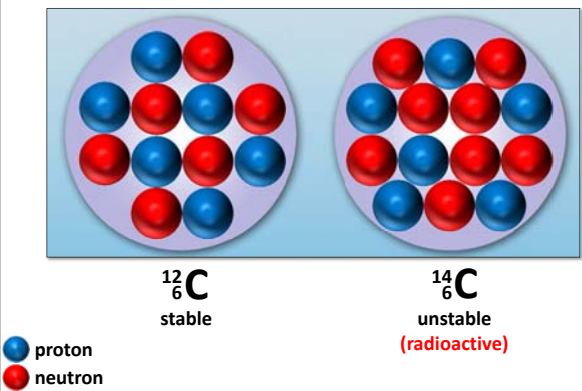


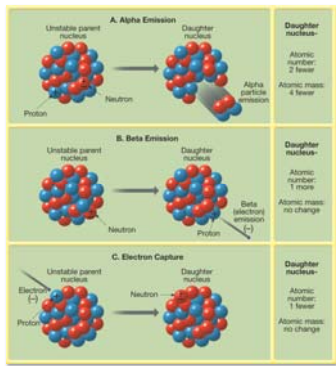
The number of neutrons in a nucleus determines the isotope of that atom.



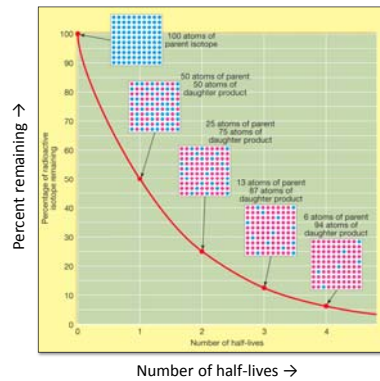
The number of neutrons in a nucleus determines the isotope of that atom.



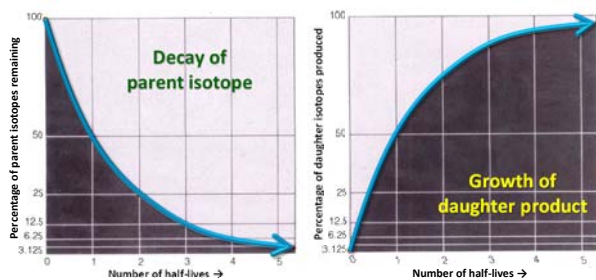
Each unstable isotope decays by a specific mechanism that changes the nucleus of the atom.



One-half of the parent isotope decays to the daughter isotope in one half-life.



One-half of the parent isotope decays spontaneously to the daughter product in one half-life.



The weak nuclear force defines the mechanism (α , β , ϵ^- or γ) and rate of decay (half-life) of unstable isotopes.