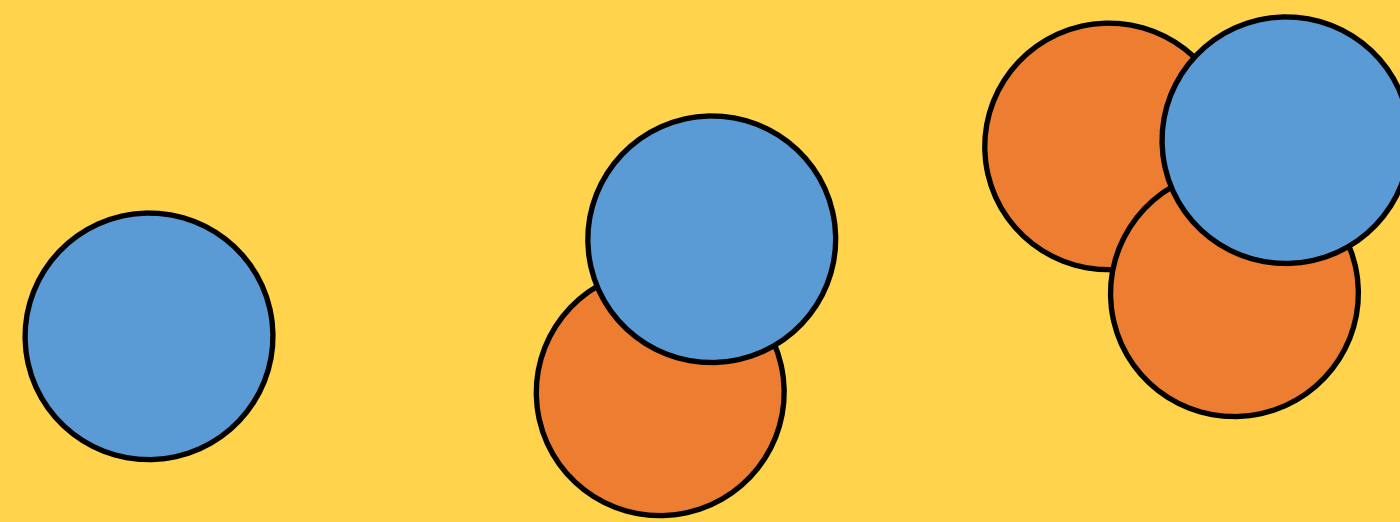




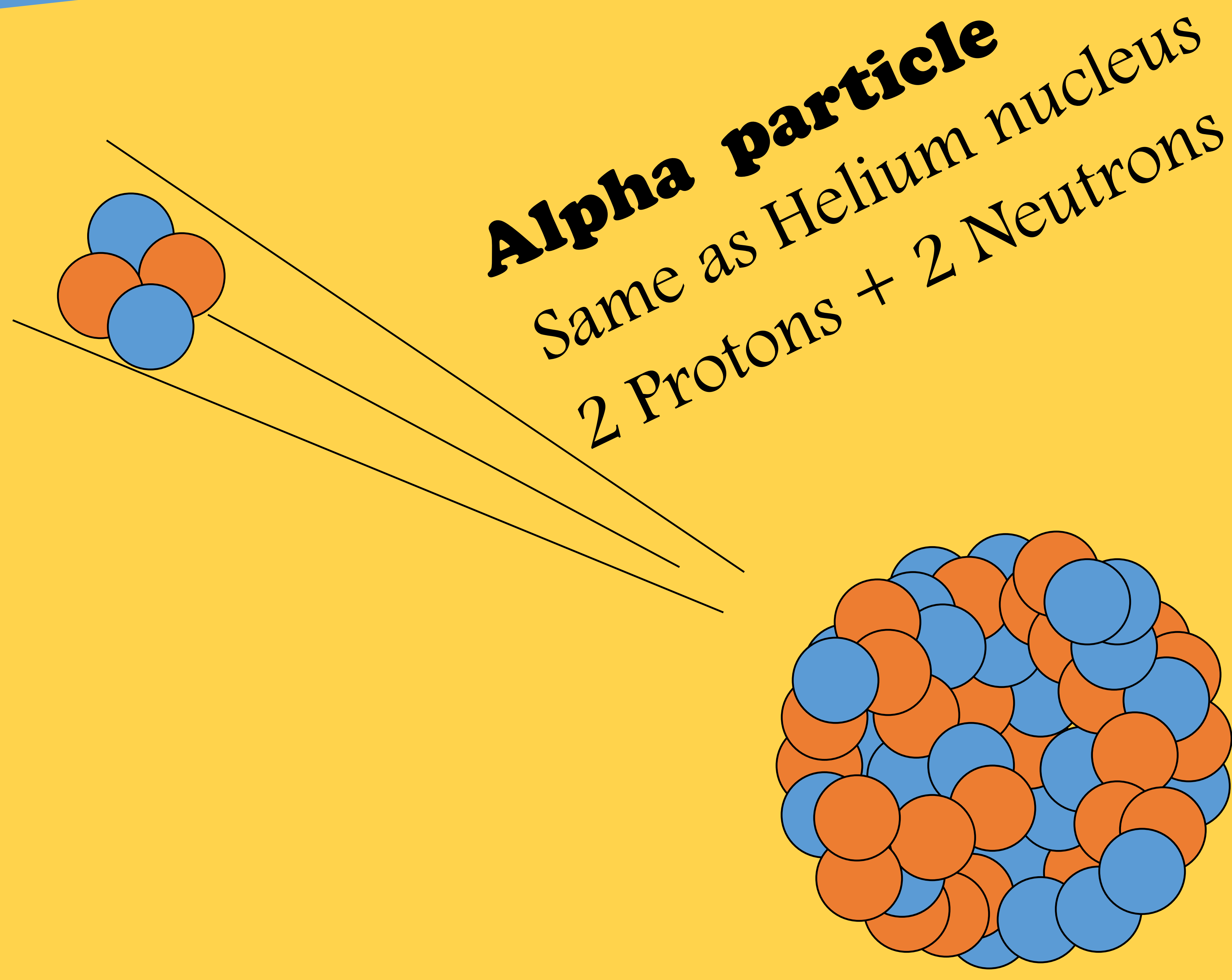
# Radioactivity

**Isotopes are atoms with a different physical form than those found in the periodic table, they have a different number of neutrons in their nucleus.**

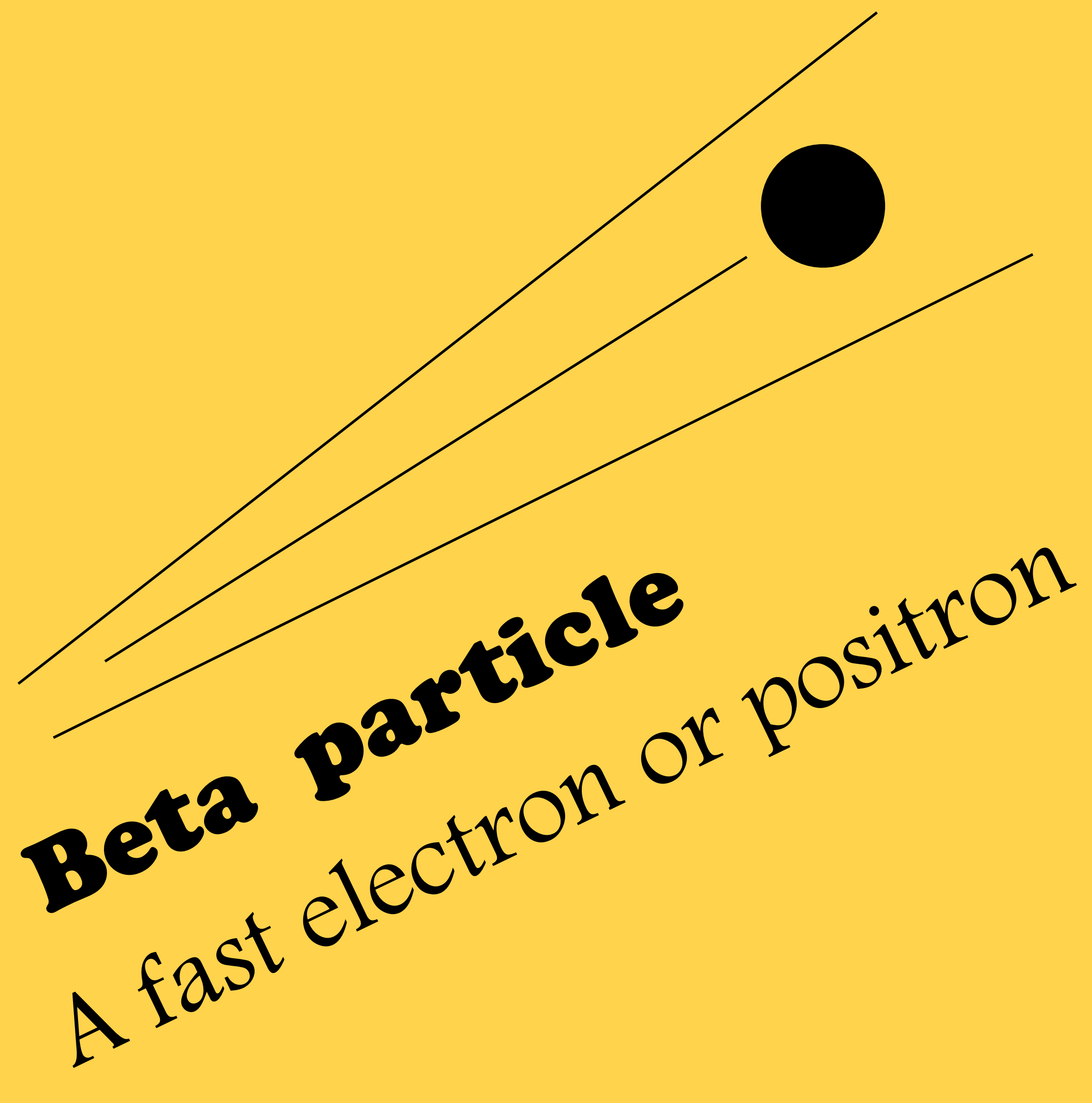


Hydrogen, Deuterium and Tritium are all the same element, but clearly they are different isotopes.

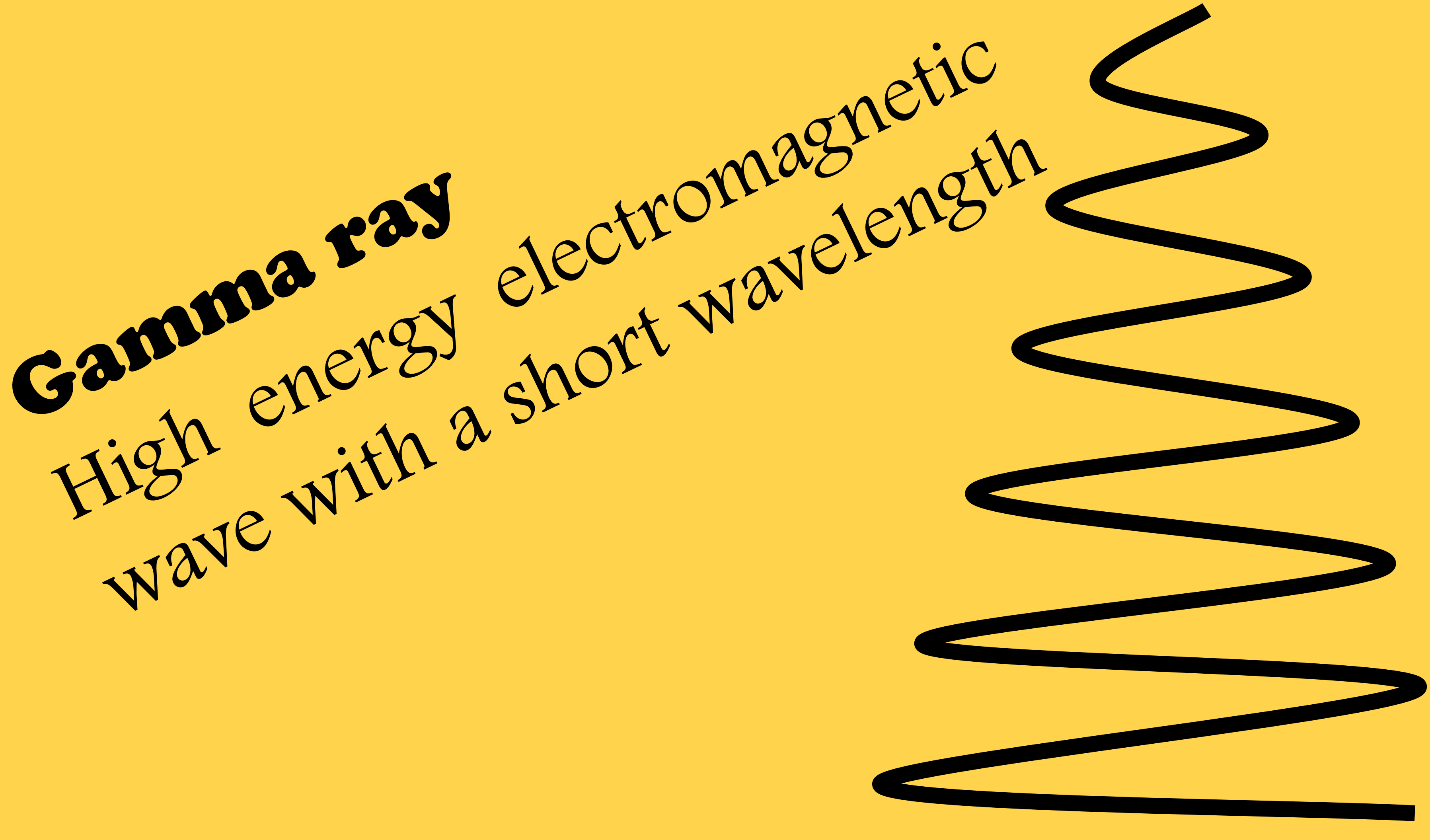
Some isotopes are unstable and radioactive, this means they release radiation from their nucleus; the three main types of radiation are shown below:



**Alpha particle**  
Same as Helium nucleus  
2 Protons + 2 Neutrons



**Beta particle**  
A fast electron or positron



**Gamma ray**  
High energy electromagnetic wave with a short wavelength