Isotopes

Things at the "same place" in the periodic table

An element is all of the atoms with the same number of protons (e.g., 92 for uranium). Within one element, isotopes are atoms with different numbers of neutrons (e.g., 142, 143, and 146 for uranium), which give the different weights by which the isotopes are known (e.g., 1234, 235, and 238 for uranium). When chemists were first learning about all of this and assembling the periodic table, they realized that isotopes of an element were all things that should be at the same place in the periodic table, and "same place" (or "iso - tope" from Greek) gave the name "isotope".