

ATOMIC STRUCTURE

Nucleus: protons and
neutrons

Electron Cloud: electrons

What separates one element
from another? # of protons

What separates one isotope
from another? neutrons

ABSOLUTE DATING



ATOMIC DECAY

Radioactive isotopes are unstable due to the proton/neutron ratio

These unstable radioactive “parent” isotopes decay (lose protons, neutrons, electrons) to become a stable “daughter” element

HALF LIFE

Active parent element -----> Stable daughter element

Radioactive isotopes decay at a specific rate, known as the half life

<u>Parent Element</u>	<u>Half Life</u>	<u>Daughter Element</u>
Uranium-235	704 Million Years	Lead-207

PARENT/DAUGHTER RATIOS

50% Parent 50% Daughter #Half lives_____

25% Parent 75% Daughter #Half lives_____

12.5% Parent 87.5% Daughter #Half lives _____

75% Parent 25% Daughter #Half lives _____