**Noteguide for Nuclear Stability- Videos 30L Name**

A nucleus is bound by the strong nuclear force. Since this force is extremely short range (1x10-15 m) as the nucleus gets bigger, nuclei become in general less stable because the Coulombic repulsion of the protons gets stronger, and the strong nuclear gets weaker. Ultimately there is an upper limit to the size of a stable nucleus.

Forces in a nucleus:

Coulombic force: Strong Nuclear Force:

A graph of neutrons vs. protons for stable nuclei:

