Name: _____ Date: _____

Subatomic Physics

1. an atom that has the same number of protons as other atoms of the same element do but that has a different number of neutrons

2. the interaction that binds nucleons together in a nucleus

3. the energy released when unbound nucleons come together to form a stable

4. the time needed for half of the original nuclei of a sample of a radioactive substance to undergo radioactive decay

5. associated with its mass, a particle has a certain amount of energy called

6. must be overcome by an attraction force to prevent the nucleus from breaking apart

7. high-energy photons

8. transforms neutrons and protons in the nucleus

9. any process that involves a change in the nucleus of an atom

10. system designed to maintain a controlled, self-sustained chain reaction.

11. have no internal structure and do not seem to break down into smaller units

12. all are composed of two or three fundamental particles, which are called quarks

A. Beta Decay

B. Nuclear reactor

C. Leptons

D. Gamma rays

E. Coulomb repulsion

F. Nuclear reaction

G. Rest energy

H. Isotope

I. Binding energy

J. Strong Force

K. Half-life

L. Hadrons