<u>Across</u>

4. Type of nuclear fission in which nonfissionable U-238 is converted into fissionable Pu-239
5. The splitting of an atomic nucleus into two smaller fragments, accompanied by the release of a large amount of energy

6. Radioactive solids, liquids, or gases that give off small amounts of ionizing radiation

8. The joining of two lightweight atomic nuclei into a single, heavier nucleus, accompanied by the release of a large amount of energy 10. The energy released by nuclear fission or fusion12. Radioactive solids, liquids, or gases that give off large amounts of ionizing radiation

13. A device that initiates and maintains a controlled nuclear fission chain reaction to produce energy for electricity

<u>Down</u>

 To dismantle an old nuclear power plant after it closes
 The used fuel elements that were irradiated in a nuclear reactor **3.** The emission of energetic particles or rays from unstable atomic nuclei

7. Processes involved in producing the fuel used in nuclear reactors and in disposing of nuclear wastes

9. A reactor fuel that contains a combination of uranium oxide and plutonium oxide.

11. The process by which uranium one is refined after mining to increase the concentration of fissionable U-235

Nuclear Energy