**Key Vocabulary: Week 5.5: Nuclear and Review**

***Complete ALL Week 5.0 and 5.5 flashcards and study over the weekend.***

 ***Week 5.5- Flashcards on Wednesday, Quiz on Wednesday, 7/17.***

1. **Meltdown:** a catastrophic failure of a nuclear reactor in which the fuel rods of a reactor overheat and toxic radiation is released to the environment.
2. **Chain Reaction:** a continuous, self-sustaining fission reaction.
3. **E = mc2 :** shows the relationship between energy (E) and mass (m). Nuclear reactions do not follow the law of conservation of mass and energy.
4. **Nuclear Reactor**: a large device used to convert the heat energy from the nuclear fission of uranium into electrical energy. Found in a nuclear power plant.
5. **Control Rods:** made of neutron-absorbing materials and used to control the rate of fission in a nuclear reactor.
6. **H-3** : tritium, one of two hydrogen isotopes used to power nuclear fusion.
7. **H-2** : deuterium, one of two hydrogen isotopes used to power nuclear fusion.
8. **H-1** : protium, common hydrogen, not typically used for fusion power.
9. **U-235** : the only fissile isotope of uranium found abundantly in nature.
10. **U-238:** the most common isotope of uranium, not fissile. Used to create Pu-239 in reactors.
11. **Pu-239**: isotope of plutonium commonly used in nuclear weapons (bombs, missiles).
12. **C-14:** isotope of carbon used to determine the age of fossils (radiocarbon dating).