**GPS – Fission and Fusion**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
| ***Bellwork*** |
| CH10_13a | 1. What are the three types of decay we talked about yesterday?
 |
| 1. When an atom is ***radioactive***, it is… \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. ***Half-life of radioactive isotopes***a. The length of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it takes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the atoms of a sample of radioactive isotopes to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

b. Varies from fractions of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to billions of \_\_\_\_\_\_\_\_\_\_\_\_\_\_c. Do you remember plutonium’s half-life? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1. ***How can we use radioactive half-lives?***Can be used to determine the \_\_\_\_\_\_\_\_\_\_\_ of old objects, such as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. ***Nuclear fission*** 🡪 the process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a nucleus into two nuclei with smaller masses
3. ***Chain reaction*** 🡪 an ongoing series of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reactions
4. ***Nuclear fusion*** 🡪 two nuclei with low masses are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to form ONE larger \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_a. Can only happen when nuclei are moving \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Temperature must be as high as the temperature of a \_\_\_\_\_\_\_\_\_\_\_ |

Complete the review matching activity either alone or with one partner!