Earth and Life History Name:

Absolute Dating Period:

Use Chapter 8, Section 3 of your textbook to answer the questions below.

Absolute Dating (p.246)

1. _____ helps scientists to learn the age of an object by figuring out the number of years the object has existed.

Radioactive Decay (p.246)

2. _____ happens when a radioactive isotope breaks down.

3. Different types of isotopes will _____ at different rates, but for each type of isotope, the rate of decay is _____ .

Dating Rocks—Parent and Daughter Isotopes (p.247)

4. To date rocks, geologists _____ the amount of parent isotope and daughter isotope.

Radiometric Dating (p.247)

5. _____ helps geologists figure out the absolute age of a _____.

The Most Useful Rock Samples (p.247)

6. Geologists prefer to use _____ rocks for radiometric dating.

Using Radiometric Dating (p.248)

7. The _____ of an isotope determines how the isotope can be used for dating.

Methods of Radiometric Dating (p.248)

8. By using radiometric dating, geologists figured out that the rock of Half Dome was eroded about _____ million years ago.

The Age of Our Solar System (p.249)

9. There are no rocks from _____ left that are as old as our planet.

10. What rocks have been found on Earth that are as old as our solar system? _____

11. Look at Figure 4. Where are these rock samples being collected from? the _____

12. We know Earth is 4.6 billion years old by using the process of _____ .