

## Earth and Life History

Name:

### Absolute Dating

Period:

Use Chapter 8, Section 3 of your textbook to answer the questions below. The word banks can be used to fill out the sentences below them. Some terms may be used more than once.

absolute dating   compare   constant   decay   Earth   half-life   igneous  
meteorites   moon   radioactive decay   radiometric dating   rock

#### 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

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

5. \_\_\_\_\_ helps geologists figure out the absolute age of a \_\_\_\_\_.

#### The Most Useful Rock Samples

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

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 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 \_\_\_\_\_



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