Name _____ Class _____ Date _____

Skills Worksheet

# Directed Reading A

## Section: Absolute Dating: A Measure of Time

1. What is the purpose of absolute dating?

_____

_____

### RADIOACTIVE DECAY

2. Atoms of the same element that have the same number of protons but a different number of neutrons are called _____.
3. When an isotope is _____, it does not undergo radioactive decay.
4. When an isotope is _____, it is called radioactive.
5. During _____, an unstable isotope breaks down into a stable isotope.
6. How do scientists use isotopes to determine the age of an object?

_____

_____

_____

7. An unstable isotope is called the _____ isotope.
8. The stable isotope is called the _____ isotope.
9. The more daughter material there is in a rock sample, the _____ the rock is.

### RADIOMETRIC DATING

10. The time it takes for one-half of a radioactive sample to decay is called a(n) _____.
11. Determining the age of a sample, based on the ratio of parent material to daughter material, is called _____.

**12.** After every half-life, what has happened to the parent material in an object?

_____

_____

_____

## TYPES OF RADIOMETRIC DATING

**Match the description of the type of radiometric dating with the correct term. Write the letter in the space provided.**

_____**13.** used mainly for dating objects that are younger than 50,000 years

_____**14.** used mainly for dating rocks older than 100,000 years

_____**15.** used to date rocks older than 10 million years; half-life of isotope is 4.5 billion years

_____**16.** used to date rocks older than 10 million years; half-life of isotope is 49 million years

**a.** potassium-argon

**b.** uranium-lead

**c.** rubidium-strontium

**d.** carbon-14