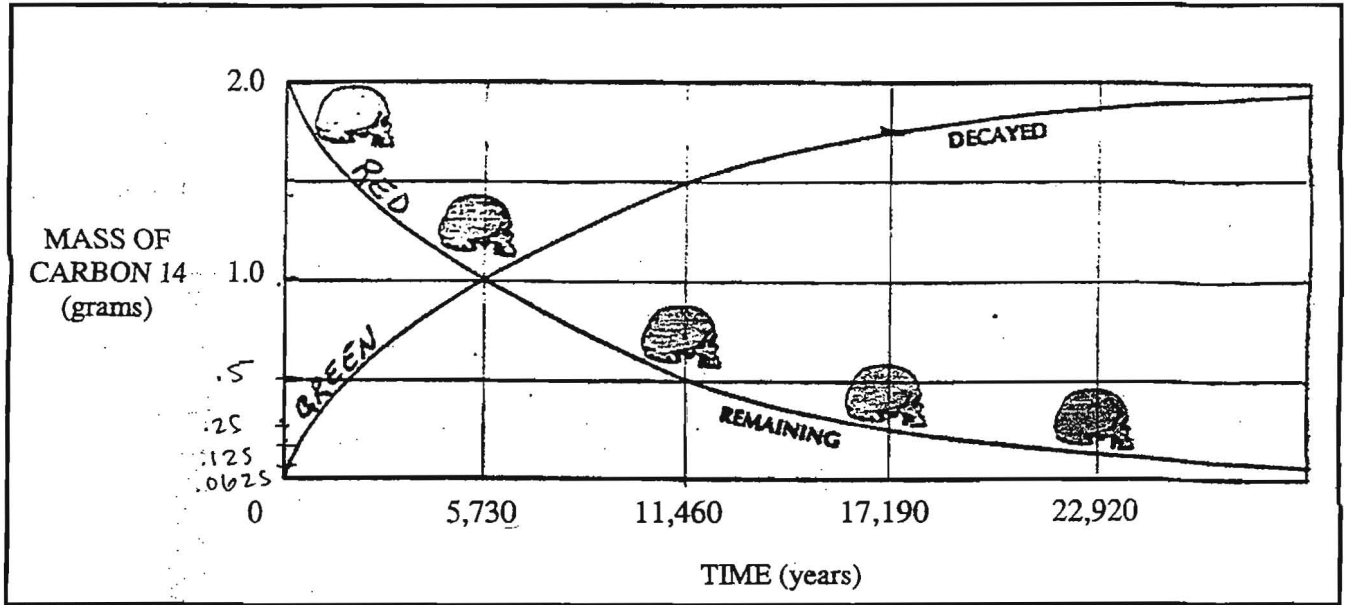


Carbon Dating
Evolution
Chapter 14

Name _____



1. Explain radiocarbon dating. using 1/2 lives to determine the age of fossils
2. What is plotted on the horizontal axis of this graph? time
3. What is plotted on the vertical axis of this graph? mass
4. What does the red line on the graph represent? amount of C remaining
5. What does the green line on the graph represent? amount decayed
6. How many grams of carbon 14 remain in the fossil after 11,460 years? .5 g
7. How many grams of carbon 14 have decayed in this fossil after 11,460 years? 1.5 g
8. At the time of death, this organism contained how many grams of carbon 14? 2 g
9. How many grams of carbon 14 have decayed in this fossil after 5,730 years? 1 g
10. How many grams of carbon 14 have decayed in the fossil after 17,190 years? 1.75 g
11. How many grams of carbon 14 remain in the fossil after 17,190 years? .25 g

12. How old is a fossil that contains 1 gram of carbon 14? 5,730 years

13. A fossil was found in 1900. It contained .0625 gram of carbon 14. The living organism contained 2.0 grams. How many years before 1900 did the organism die?

5 half lives = 28,650

14. Another fossil found in 1900 contained 0.50 grams of carbon 14. The living organism contained 3.0 grams.

Did this organism die at the same time as the organism in question 13? Explain. _____

only ~2.5 half lives

15. Define "half-life." time it takes for 1/2 of material to decay

