

November 25, 2017

Mosses Tell Story of Retreating Ice

Article-Based Observation: Q

Directions: Read the article "[Mosses tell story of retreating ice](#)" and then answer these questions.

1. In one sentence, what is the main idea of the article?

2. Where in the Arctic did paleoclimatologist Gifford Miller and his team find the mosses, and how were the mosses exposed?

3. How were the mosses originally covered?

4. How many different samples were analyzed? How do you know this?

5. What happens over time to a radioactive element? Define and give an example of a half-life mentioned in the article?

6. How long does it take for radioactive carbon to completely “die” or decay? How is radioactive carbon generally used for radioactive dating?

7. What is a limitation of radiocarbon dating?

8. Based on radioactive carbon dating, when were groups of moss buried on the island?

9. What additional evidence can be used to estimate the age of the mosses that lack measurable radioactive carbon?

10. Why do you think this study is important for the modern world?