

SC.912.L.15.8 – Origin of Life – Example 3 Answer

The Miller-Urey experiment of 1953 was designed to test the hypothesis that lightning supplied the energy needed to turn atmospheric gases into organic molecules such as amino acids. Which of the following describes why the Miller-Urey theory is widely accepted today?

- A. Amino acids spontaneously form from molecules in the atmosphere today.**
- B. Organic molecules are present today in extremely high concentrations.**
- C. The process of synthesizing organic molecules from a mixture of gases has been successfully modeled in the laboratory.**
- D. No other alternative hypotheses have been introduced.**

Answer

C. The process of synthesizing organic molecules from a mixture of gases has been successfully modeled in the laboratory.

The Miller-Urey experiments have been tested many times in the laboratory and organic molecules have continued to be successfully formed from mixtures of gases.