

SC.912.L.15.6 – Classification – Example 5 Answer

In 1990, Carl Woese introduced the three domain system for classifying living things, after the advancement of DNA analysis allowed for a comparison of species genetic code. Which of the following is the best explanation for why domains were added to the previous system of classification?

- A. The old system of classification was wrong and needed to be corrected.**
- B. New species are evolving too quickly to keep up with the old system of classification**
- C. Domains have always been included, they were just made official recently.**
- D. Some organisms, which were previously characterized together, were determined to be genetically very different.**

Answer

D. Some organisms, which were previously characterized together, were determined to be genetically very different.

Using the analysis of RNA developed by Carl Woese, scientists are now able to classify living things based on genetic information instead of expressed characteristics. Genetic information is more specific and can give clues as to the evolutionary ancestry of organisms.