

Chapter 18 Classification **Section Review 18-2**

Reviewing Key Concepts

Short Answer *On the lines provided, answer the following questions.*

- 1. In the system of evolutionary classification, why do scientists classify different species into the same genus?

- 2. How is evolutionary classification different from Linnaeus’s system of classification?

- 3. What type of characteristic is considered in a cladistic analysis?

- 4. How are DNA mutations used in molecular clocks?

Completion *On the lines provided, complete the following sentences.*

- 5. Cladistic analysis focuses on _____, unique features that appear in some organisms but not in others.
- 6. Perhaps because of their important role in transmitting genetic information, _____ and _____ are similar across all forms of life and provide a means of comparing organisms that would otherwise seem to have little in common.
- 7. By examining sequences of DNA, scientists have found that the _____ of dissimilar organisms share many important similarities that may be used as criteria for classification.

Reviewing Key Skills

- 8. **Applying Concepts** Give an example in which DNA comparisons showed a surprising relationship among particular kinds of organisms.

- 9. **Inferring** A scientist analyzes the insulin molecules, which are proteins, of three different species, A, B, and C. The insulin from A is different from B in six ways and from C in three ways. The insulin from B is different from C in two ways. Which two species appear to be most closely related? Explain your answer.

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