Name _____ Date_____ Class_____

Changes Over Time ■ *Guided Reading and Study*

GRS 6.2

Evidence of Evolution

This section tells how scientists decide which living things are related.

Interpreting the Evidence

1. What three things provide evidence that organisms have changed over time?

_____

_____

2. Similar body structures that related species have inherited from a common ancestor are called _____.

3. What similarities in development lead scientists to infer that opossums, chickens, salamanders, and fish share a common ancestor?

_____

_____

_____

4. Why do scientists classify fish, amphibians, reptiles, birds, and mammals together in one group?

_____

_____

_____

_____

Inferring Species Relationships

5. Is the following sentence true or false? The more closely related species are, the more similar their DNA sequences.

_____

6. What have scientists learned about the elephant shrew based on DNA evidence?

_____

_____

_____

7. Circle the letter of each sentence that is true about evolutionary relationships of organisms.

a. DNA comparisons show that dogs are more similar to coyotes than to wolves.

b. Scientists had already made good conclusions about the evolutionary relationships of dogs, wolves, and coyotes based on their similar structures and development.

c. A branching tree shows how scientists think different groups of organisms are related.

d. DNA evidence shows that giant pandas are more closely related to raccoons than to bears.