Name _____ Class _____ Date _____

SECTION 15-3 REVIEW

EVOLUTION IN ACTION

VOCABULARY REVIEW Provide one example for each of the following terms.

1. adaptive radiation _____
2. artificial selection _____
3. coevolution _____
4. convergent evolution _____
5. divergent evolution _____
6. resistance _____

MULTIPLE CHOICE Write the correct letter in the blank.

_____ **1.** What is the process called by which different species evolve similar traits?

a. coevolution.
b. convergent evolution.
c. divergent evolution.
d. adaptive radiation.

_____ **2.** The evolutionary pattern illustrated by the finch species on the Galápagos Islands is an example of

a. coevolution.
b. convergent evolution.
c. divergent evolution.
d. artificial selection.

_____ **3.** Divergent evolution would be most likely in which of the following situations?

a. A group of organisms is isolated from the main population on three isolated islands with different environmental conditions.
b. Individuals in a large population experience the same environmental conditions.
c. Individuals in a small population experience the same environmental conditions.
d. A group of organisms which are well adapted to the environment live on a remote island.

_____ **4.** The corresponding changes of two or more species that are closely associated with each other, such as a plant and an animal that pollinates it, are called

a. adaptive radiation.
b. divergent evolution.
c. convergent evolution.
d. coevolution.

_____ **5.** In artificial selection, humans select for

a. a desirable trait.
b. an undesirable trait.
c. a vestigial trait.
d. a trait that makes the organisms less fit.

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SHORT ANSWER Answer the questions in the space provided.

1. What is adaptive radiation?

2. What could happen to a tree-dwelling species of lizard if all the trees in an area died?

3. Give three examples of artificial selection. Include examples of both animals and plants.

4. **Critical Thinking** Would a species that lives a long time, but has few offspring, be more or less likely to become extinct after a sudden change in its environment than a species that has a short life, but produces large numbers of offspring? Explain.

STRUCTURES AND FUNCTIONS

The diagram shows several groups of primates and a hypothesis of how they are related based on differences in DNA. What pattern of evolution does the diagram represent? According to this hypothesis, when did the rhesus monkey and the green monkey diverge? Which group of primates existed before the others?