Answer Key

Vocabulary Practice

A. Stepped-Out Vocabulary
1. Difference in the physical traits of an individual from those of other individuals.
2. Homologous
3. sample answer: does not provide evidence of common descent, examples include wings of insects and birds.
4. Vestigial structures; Remnants of organs or structures that had a function in an early ancestor.

B. Compound Word Puzzle
1. species; sample answer: all of the same kind
2. adaptation; sample answer: allows an organism to better survive in its environment
3. natural selection; sample answer: mechanism by which populations evolve
4. population; a community of individuals of the same species

C. Do-It Yourself Matching
1. Sample answer: biological change over time
2. Sample answer: ability to produce offspring
3. Sample answer: theory that natural disasters caused great change on Earth
4. Sample answer: theory that change on Earth occurs slowly
5. Sample answer: processes of change that can be seen today also caused change in the past
6. Sample answer: humans select traits for breeding

7. Sample answer: the environmental conditions cause certain traits to be more advantageous than others
8. Sample answer: study of fossils
9. Sample answer: study of the distribution of organisms across Earth
10. Sample answer: able to be passed down to offspring

D. Find the Odd Word
1. fitness; paleontology is the study of fossils
2. biogeography; something must be heritable to undergo artificial selection
3. catastrophism; uniformitarianism incorporates the theory of gradualism plus the idea that what happened in the past can be observed occurring today
4. analogous structure; homologous and vestigial structures are both evidence of common descent
5. vestigial structure; there must be variation in a population for adaptation to occur
6. catastrophism; natural selection is a mechanism by which evolution occurs

E. Crossword Puzzle
Across
1. uniformitarianism
5. vestigial structures
8. fossil
10. analogous structures
11. catastrophism
12. analogous structures
13. natural selection
14. adaptation

Down
2. artificial selection
3. gradualism
4. evolution
6. species
7. fitness

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### A. Stepped-Out Vocabulary

Determine the vocabulary word that fits best, define each word, or write two additional facts that are related to the word in the spaces below.

<table>
<thead>
<tr>
<th>WORD</th>
<th>DEFINITION</th>
<th>MORE INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example</strong> Fossil</td>
<td>Traces of an organism that existed in the past.</td>
<td>there are different types of fossils. They allow scientists to study evolution.</td>
</tr>
<tr>
<td><strong>1. Variation</strong></td>
<td></td>
<td>can occur among members of different species. Can occur among members of the same species.</td>
</tr>
<tr>
<td><strong>2.</strong></td>
<td>Features that are similar in structure but appear in different organisms and have different functions.</td>
<td>Evidence of common descent. Common examples are the forelimbs of vertebrates.</td>
</tr>
<tr>
<td><strong>3. Analogous structures</strong></td>
<td>Structures that perform a similar function but are not similar in origin.</td>
<td></td>
</tr>
</tbody>
</table>
## VOCABULARY PRACTICE, CONTINUED

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<thead>
<tr>
<th>WORD</th>
<th>DEFINITION</th>
<th>MORE INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>evidence for common descent</td>
<td>examples include snake pelvic bones</td>
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</tbody>
</table>

### B. Compound Word Puzzle
Read the phrase and write the word that it most closely describes. Then write another phrase that describes the same word in a different way.

<table>
<thead>
<tr>
<th>PHRASE 1</th>
<th>WORD</th>
<th>PHRASE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example</strong> Process of biological change over time</td>
<td>Evolution</td>
<td>Process by which descendents come to differ from their ancestors</td>
</tr>
<tr>
<td>1. Can interbreed and produce fertile offspring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Beneficial feature</td>
<td></td>
<td></td>
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<tr>
<td>3. The environment is the selective agent</td>
<td></td>
<td></td>
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<tr>
<td>4. All the individuals of a species that live in an area</td>
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<td></td>
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</tbody>
</table>

### C. Do-It Yourself Matching
In a random order, write short definitions for each term on the blank lines to the right. Then give your paper to a classmate who should write the number of the term next to the correct definition.

1. evolution
   | ______________________ |
2. fitness
   | ______________________ |
3. catastrophism
   | ______________________ |
4. gradualism
   | ______________________ |
VOCABULARY PRACTICE, CONTINUED

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>5.</td>
<td>uniformitarianism</td>
</tr>
<tr>
<td>6.</td>
<td>artificial selection</td>
</tr>
<tr>
<td>7.</td>
<td>natural selection</td>
</tr>
<tr>
<td>8.</td>
<td>paleontology</td>
</tr>
<tr>
<td>9.</td>
<td>biogeography</td>
</tr>
<tr>
<td>10.</td>
<td>heritability</td>
</tr>
</tbody>
</table>

D. Find the Odd Word  Put a checkmark next to the word that does not belong and explain why. There may be more than one correct way to answer for some of the word sets.

1. ____ fossil
   ____ fitness
   ____ paleontology

2. ____ artificial selection
   ____ heritability
   ____ biogeography

3. ____ catastrophism
   ____ gradualism
   ____ uniformitarianism

4. ____ homologous structure
   ____ analogous structure
   ____ vestigial structure

5. ____ variation
   ____ adaptation
   ____ vestigial structure

6. ____ evolution
   ____ natural selection
   ____ catastrophism
E. Crossword Puzzle  Use the clues to solve the puzzle.

**Across**
1. Theory that processes that can be seen today also occurred in the past
5. Remnants of organs that functioned in an ancestor
8. Traces or remains of an organism that existed in the past
10. Features with the same function in two organisms but different recent ancestors
11. Theory of dramatic natural events changing Earth
12. Study of fossils
13. Theory of how evolution occurs
14. Beneficial feature that helps survival

**Down**
2. Choosing particular traits for breeding
3. Theory of slow change over long time periods
4. Process of biological change over generations
6. Members of a group that can interbreed
7. Measure of ability to survive and produce offspring