

STUDY GUIDE: EVOLUTION UNIT TEST

Study Guide Due: Monday, October 22nd, Unit Test: Tuesday, October 23rd

You should be able to:

- **Identify** two kinds of evidence that show that organisms have evolved.
- **Describe** one pathway through which a modern whale could have evolved from an ancient mammal.
- **Explain** how comparing organisms can provide evidence that they have ancestors in common.
- **Describe** the four parts of Darwin's theory of evolution by natural selection.
- **Describe** the gradual processes that had changed the Earth's surface over selection.
- **Relate** genetics to evolution.
- **Give** three examples of "Natural Selection in Action".
- **Outline** the 3 steps discussed for the process of speciation.

You should be able to define and/or discuss:

- species
- adaptation
- Comparing DNA
- population
- fossils
- Darwin's finches
- evolution
- fossil record
- selective breeding
- natural selection
- comparing skeletal structures
- speciation

YOU SHOULD BE USING YOUR CLASS RESOURCES TO COMPLETE THIS

Use your binder (with returned worksheets) & HW journal (with definitions) to complete this study guide.

We are currently using Textbook: C: Cells, Heredity and Classification

-Chapter 5 The Evolution of Living Things

-Chapter 6 The History of Life on Earth

1. Define the following terms from the ONLINE TEXTBOOK (definitions in your homework journal):

<u>Population:</u>	<u>Fossils:</u>
<u>Species:</u>	<u>Adaptation:</u>

2. **Where** did Charles Darwin observe different species of finches? _____

3. **What** did Charles Darwin notice **was different** between these species of finches? **What caused** this difference?

Their _____ were different, due to the different _____ sources available.

4. **List** and briefly **explain** the three steps that lead to speciation. **(From C5.3)**

Step 1: _____ → Explanation: _____

Step 2: _____ → Explanation: _____

Step 3: _____ → Explanation: _____

5. What are **two** pieces of evidence that two species may have a common ancestor? **(Evidence for Evo lab)**

1. _____

2. _____

6.. List and briefly explain the **FOUR** steps of natural selection. **(Natural Selection Comic Strip)**

1) _____ → Explanation: _____

2) _____ → Explanation: _____

3) _____ → Explanation: _____

4) _____ → Explanation: _____

7. The more closely related two species are, the more similar their _____ will be. **(Evid. for Evo lab)**

8. Scientist have provided evidence to support that whales were once _____

8. Continued... **Provide 3 pieces of evidence for whale evolution:** (“When Whales Walked” video worksheet)

- a. _____
- b. _____
- c. _____

9. Describe **3 adaptations** humans acquired as they evolved from ape-like species to Homo Sapiens. (**Human Origins Video/Do Now**)

- 1. Adaptation: _____ Function/purpose: _____
- 2. Adaptation: _____ Function/purpose: _____
- 3. Adaptation: _____ Function/purpose: _____

10. Genetically speaking _____ does not exist. Why? _____

11. Define & provide an example:

a) **Natural Selection:** _____

Example: _____

b) **Artificial Selection:** _____

Example: _____

a) **Sexual Selection:** _____

Example: _____

12. Organism Relationships (**Symbiosis Worksheet**)

Provide an example that demonstrates each type of symbiotic interactions:

a) **Predation (+/-):**

c) **Commensalism (+/0):**

b) **Mutualism (+/+):**

d) **Parasitism (+/-):**

12. Scientists have divided the history of Earth into four big divisions of time called _____. (**Eras Worksheet**)

13. In the _____ Era, there was no oxygen and simple _____ organisms.

14. In the _____ Era, known as the “Age of Ancient Life”, there were _____ & small air-breathing _____.

14. The Mesozoic Era is known as the “Age of the _____ / _____”

15. We are currently in the _____ Era, known as the “Age of the _____”