

**Unit F: Evolution**

Name: \_\_\_\_\_

**Activity 99 – A Whale of a Tale**

Period: \_\_\_\_\_

**PURPOSE:** (40pts)

I can *infer* how closely related two **species** are based on their **anatomical features**.

**BACKGROUND:**

You’ve just been hired as the assistant curator of the fossil collection of a museum. On your first day at work, you discover that the skeletons in the exhibit on the evolution of whales have all been moved to a new room and need to be arranged. Unfortunately, you are not a whale expert and the skeletons are not clearly labeled.



A local middle school has scheduled a field trip to the museum where you work! It is very important that you arrange the skeletons properly before the students arrive. So you’ll need to examine, sort, and set up the skeletons properly before the student arrive.

**PROCEDURE:**

1. As a group, follow the procedure on pages F-49 – F-50 of your book.
2. Record your data in Data Table 1 below.
3. Answer all analysis questions at the end of this worksheet.

<b>Data Table 1. Comparing Skeletons 24 pts</b>		
<b>Group</b>	<b>Similarities</b>	<b>Differences</b>
<b>Group 1:</b> _____	1.  2.  3.  4.	1.  2.  3.  4
<b>Group 2:</b> _____	1.  2.  3.  4	1.  2.  3.  4
<b>Group 1 Skeletons compared to Group 2 Skeletons</b>	1.  2.	1.  2.

**ANALYSIS QUESTIONS: (16 pt total, 4pt each answer)**

1. a. What kinds of **anatomical features** appear to have occurred **during the evolution of whales**?

1.
2.
3.

b. Specifically what can you infer about the **changes in habitat** that occurred **at the same time** that these **anatomical features occurred**?

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2. *Thoroughly explain* how **one** of these changes could have occurred due to **natural selection**.

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3. In this activity, you examined extinct and modern whale skeletons. Tell how the study of these skeletons *provides evidence* about how species are related. **Give at least two examples**

Tell how and give two specific examples