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Biology: Study Guide for Quarterly 1

**Define the following terms:**

1. **Evolution(Ex):**
2. **Adaptation (Ex):**
3. **Artificial selection(Ex):**
4. **Extinction:**
5. **Anatomy(Ex):**
6. **Natural selection(Ex):**
7. **Homologous structures(Ex):**
8. **Independent variable:**
9. **Heredity:**

**Answer the following:**

1. **What do rival theories often encourage scientists to do?**
2. **Why is it important for a researcher to communicate their results to others?**
3. **What should an experimental research plan include?**
4. **If you conducted an experiment and your data did not support your hypothesis, what should you do next?**
5. **If a farmer choose to breed only those tomato plants that produce the most tomatoes, the farmer would be following what principle?**
6. **Describe the major concept of Lamarck’s evolutionary hypothesis?**
7. **What is the main concept of Darwin’s theory of natural selection?**
8. **Why would extinction of a species occur?**
9. **How did Darwin explain that only a small number of offspring survive to reproduce?**
10. **Give an example of a rapid biological adaptation that has occurred.**
11. **What might a biochemist use to compare organisms?**
12. **In which classification category are organisms most similar?**
13. **What is the scientific name made up of?**
14. **What are characteristics that are unique only to humans?**
15. **What information can the fossil record tell us?**
16. **Scientists usually being their work by?**



1. **What do the forelimb bones of the different organism above most likely indicate?**

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1. **The diagram above shows embryos of different species. Explain why it is thought that they provide proof of evolution?**

**\*Be able to read and answer questions on a graph.**

**-Natural selection questions**