

Name: _____ Date: _____ Block: _____

Honors Biology: Study Guide for Quarterly 1

Know the following terms and examples if applicable:

Evolution(Ex)	Adaptation (Ex)	Artificial selection(Ex)	Extinction
Comparative anatomy(Ex)	Natural selection(Ex)	Homologous structures(Ex)	Heredity
Independent variable	Acquired characteristics	descent with modification	Fossils
Speciation	homeostasis	embryology	biochemistry

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. Know the steps of the scientific method
4. What should an experimental research plan (an experiment) include?
5. If you conducted an experiment and your data did not support your hypothesis, what should you do next?
6. If a farmer chooses to breed only those tomato plants that produce the most tomatoes, the farmer would be following what principle?
7. Describe the major concept of Lamarck's evolutionary hypothesis and why was he incorrect about evolution?
8. Why are fossils the best evidence of evolution?
9. What do the other forms of evidence of evolution (embryology, vestigial structures, homology, DNA and other forms of biochemistry) each tell you about evolution?
10. What is the main concept of Darwin's theory of natural selection?
11. If two organisms normally compete for resources, what could happen to decrease their competition and increase their survival chances?
12. Why would extinction of a species occur?
13. How did Darwin explain that only a small number of offspring survive to reproduce?
14. Give examples of rapid biological adaptation that has occurred.
15. What might a biochemist use to compare organisms?
16. Know the levels of classification (K, P, C, O, F, G, S).
 - a. In which classification category are organisms most similar?
17. What is the scientific name made up of?
18. What are characteristics that are unique only to humans?
19. What can skull sizes and cranial capacity tell you about a hominid?

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