

Biology: A Study Of Life

Class: Honors Biology

Reading: Biology (Miller/Levine) pgs: 3-23

1. What is science?

2. Create a hypothesis and design an experiment to investigate that hypothesis. Be sure to identify all variables and the experimental control. (Identify the function of an "experimental control") Be creative and even funny but be complete.

3. Apply the characteristics of life highlighted in the book to you. Explain why you are a "living organism".

4. What is evolution? How does it unify different themes in biology?

5. All life requires energy. Consider a pond ecosystem, identify five specific organisms that would exist in a pond ecosystem and indicate how they are connected by the flow energy. Please draw a picture of your pond and clearly label organisms with appropriate common and scientific names. Coloring your drawing may get you some EC. points.

6. Structure and function will be a repetitive theme in biology. Choose a unique organism and discuss an unusual structure that organism possess and indicate how structure serves function.

Unit Activity: Relevance Paper

Objective: Write a two-page paper on your choice of the following essay topics. Paper format should be as follows: 1.) double-spaced 2.) 12 font 3.) Times Roman font.

Evaluation: Relevance paper will be worth 50pts. Paper will be evaluated according to the following rubric.

Criteria	3 points	2points	1 point	0 points
Paper length	Full 2 pgs	Less than 2 pages but more than or equal to 1.5 pages	Less than 1.5 page equal to 1 page	Less than a 1 page
Thesis Content	Coverage of topic is complete and relevant to paper objective	Coverage of content meets paper basic objectives but relevancy connection could be stronger	Coverage of content not complete and relevancy connection is weak,	Paper content missed the objectives completely, no relevancy connection made.
Thesis Structure	Paper contained intro, body and conclusion	Paper had adequate structure but weak expression	Paper lacked appropriate structure and was disconnected	No comprehensible structure

Topics: *(choose one and develop)*

1. Interview a professional whose job requires a strong background in biology. Your summation of the interview should include a discussion how a knowledge and training in biological sciences plays a role in this individuals career. Include the individuals name and contact number and also include questions used in your interview. *(10 extra credit points for choosing this activity and scoring a minimum of a 90% on the paper)*

2. Choose a current social issue other and explain how the public is better served by having an understanding of biological concepts. Support your thesis with at least three points of discussion. An example issue would be the discussion of stem cell research.

