Name _____ **Period** _____

AP Biology **Date** _____

EVOLUTION FRQ 2

Answers must be in essay form. Outline form is not acceptable. Labeled diagrams may be used to supplement discussion, but in no case will a diagram alone suffice. It is important that you read the question completely before you begin to write.

Darwin is considered the "father of evolutionary biology." Four of his contributions to the field of evolutionary biology are listed below:

- The nonconstancy of species
- Branching evolution, which implies the common descent of all species
- Occurrence of gradual changes in species
- Natural selection as the mechanism for evolution

a. For EACH of the four contributions listed above, discuss one example of supporting evidence.

b. Darwin's ideas have been enhanced and modified as new knowledge and technologies have become available. Discuss how TWO of the following have modified biologist's interpretation of Darwin's original contributions.

- Hardy-Weinberg equilibrium
- Punctuated equilibrium
- Genetic engineering