

Due Feb. 10

EVOLUTION OUTLINE

I. Provide current information about your species

- a. What is the scientific name (*Genus species*) of your organism?
- b. Where does it live?
- c. What makes it uniquely adapted to its current environment or circumstances? Be brief.
- d. Show a picture of what it looks like

II. Provide information about an ancestor of your species

- e. What is the scientific name of an ancestor of your species? Provide a picture.
- f. How long ago did this ancestor live? Where have its fossils been found?
- g. What epoch (e.g., Jurassic, Triassic, Cretaceous...) did this ancestor live/evolve in?
- h. Provide an evolutionary tree that shows the developmental history for the origin of your organism with the time frame clearly shown. If possible, provide a tree with your specific ancestor.

III. Link your species to its ancestor

- i. What features do these two species have in common? Provide possible explanations for these similarities.
- j. What features of these two species are different? Provide possible explanations for these differences.

IV. Link your species to a living relative

- k. What is the scientific name of a living relative of your species? Provide a picture.
- l. What features does this living relative have in common with your species? What features are different?
- m. Provide a phylogenetic tree/cladogram that shows the relationships between your species and its living relatives.

V. Natural selection and evolutionary fitness

- n. What are some of the environmental factors, such as competition, habitat, defense, etc., that drove the evolution of your organism?
- o. What types of physical or biological factors provide this creature with the ability to survive?

NOTE: You are required to provide at least **TWO evolutionary trees** in your presentation: if you cannot find adequate trees for your specific species, then you need to create them to reflect the literature you used to answer the question.