**Name: Period: Date:**

**Focus Questions for 8/19 (Evolutionary Evidence)**

# Questions to answer as you watch the videos and/or read about the evidence supporting the theory of evolution. You will not be asked to turn these in, but Ms. Ransom may check to make sure you have completed them. You should be ready to discuss the answers with your partner during class.

1. Briefly explain the nature of scientific inquiry.  Include discussion of the role that evidence and falsifiability play in the process.  When we scientists say evolution is a theory, and theories can be supported but never 100% PROVEN, is this a strength or a weakness of the scientific mode of thinking?
2. Explain how each of the following specifically support evolutionary theory (don’t just give an example, discuss why the example is evidence for evolution):
3. The fossil record
4. Homologous anatomical structures
5. Analogous anatomical structures (sometimes called homoplasies)
6. Vestigial anatomical structures
7. Molecular Homology (DNA and proteins)
8. Artificial Selection
9. Biogeography
10. Direct observation of Evolution
11. When determining evolutionary relationships, scientists want to consider as much data as possible. However, when making decisions about evolutionary relationships in a large, complex group of organisms (like the rodents), which type of data is probably going to be the **most** useful in determining evolutionary history: feeding behaviors, skull fossils, or molecular analysis of the genome. Justify your answer.
12. Because of familiarity, students tend to describe a lot of examples of evolution in animal species. Give an example of a piece of evidence supporting the theory that plants, fungi or bacteria also do evolution.

**Questions I have, that I plan to ask about in class:**