Appendix 1: Implementing Teaching Standards

8.L.4 Understand the evolution organisms and landforms based on evidence, theories and processes that impact the Earth over time.

8.L.4.1 Summarize the use of evidence drawn from geology, fossils, and comparative anatomy to form the basis for biological classification systems and the theory of evolution.

“Species acquire many of their unique characteristics through biological adaptation, which involves the selection of naturally occurring variations in populations. Biological adaptations include changes in structures, behaviors, or physiology that enhance survival and reproductive success in a particular environment. Similarities among organisms can infer the degree of relatedness: homologous structures—anatomical and cellular, analogous structure--anatomical and cellular, embryological similarities—anatomical and cellular, human developmental patterns are similar to those of other vertebrates.”22

The standard that is used to teach the curriculum unit is one that will be built upon prior to students actually learning about the standard. Students will have previously have learned of the other components that scientist would use as evidence to support the theory of evolution. This standard focuses on using comparative anatomy to determine if organisms share a common ancestor.