

COURSE: Biology

I. Grade Level/Unit Number: 9 - 12 Unit 3

II. Unit Title: Evolutionary Mechanisms

III. Unit Length: 2 weeks (on a 90 min per day block schedule)

IV. Major Learning Outcomes:

- The student will gain an understanding of
- The development of the theory of evolution by natural selection as related to the scientific process
 - The hypotheses about the evolution of the first living things
 - The evidence for the change of organisms over time – both fossil and biochemical evidence
 - The steps in the theory of natural selection
 - The current evidence for evolution seen in antibiotic and pesticide resistance
 - The history of classification systems
 - The changing nature of classification systems related to new understandings about the evolutionary relatedness of organisms
 - The differences and similarities between eukaryotes and prokaryotes
 - The characteristics that are similar and different among the Protists, Fungi, Plants, and Animals
 - The use of dichotomous keys in classifying organisms

V. Content Objectives Included (with RBT Tags):

Objective Number	Objective	RBT Tag
3.05	Examine the development of the theory of evolution by natural selection including: <ul style="list-style-type: none"> • Development of the theory. • The origin and history of life. • Fossil and biochemical evidence. • Mechanisms of evolution. • Applications (pesticide & antibiotic resistance). 	B4
4.01	Analyze the classification of organisms according to their evolutionary relationships. <ul style="list-style-type: none"> • The historical development and changing nature of classification systems. • Similarities and differences between eukaryotic and prokaryotic organisms. • Similarities and differences among the eukaryotic kingdoms: Protists, Fungi, Plants, and Animals. • Classify organisms using keys. 	B4
1.00	Learner will develop abilities necessary to do and understand scientific inquiry. Goal 1 addresses scientific investigation. These objectives are an <i>integral</i> part of <i>each of the other goals</i> . Students must be given the opportunity to design and conduct their own investigations in a safe	