Study Guide for CA#3 Biodiversity & Evolution

Date received \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date of assessment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Essential Vocabulary**

* Biodiversity
* Species diversity
* Genetic diversity
* Ecosystem diversity
* Biome
* Insurance hypothesis
* Ecological niche
* Habitat
* Generalist species
* Specialist species
* Native species
* Nonnative species
* Keystone species
* Indicator species
* Biological evolution
* Natural selection
* Fossil
* Genetic variability
* Mutation
* Adaptation
* Speciation
* Biological extinction

**SC.912.L.17.8 Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, nonnative species. DOK 3**

***Textbook reference: Unit 2 Biodiversity: Chapter 4 Biodiversity & Evolution page 104-115***

* Be able to identify positive and/or negative consequences that result from a reduction in biodiversity.
* Be able to describe the benefits of biodiversity to an ecosystem.
* Be able to identify examples of ecosystem services.
* Be able to differentiate between the three types of biodiversity - genetic, species and ecosystem.
* Be able to identify common keystone species and how they affect their ecosystem.
* Be able to explain how humans activity has caused biodiversity to decline.
* Be able to describe the impact of an invasive species to an ecosystem.
* Items referring to reduction in biodiversity may include examples of catastrophic events, climate changes, human activities, and the introduction of invasive and nonnative species.
* Items referring to reduction in biodiversity will focus on the consequence and not require knowledge of the specific event that led to the reduction.

**SC.912.L.15.13 Describe the conditions required for natural selection, including: overproduction of offspring, inherited variation, and the struggle to survive, which result in differential reproductive success. DOK 2**

***Textbook reference: Unit 2 Biodiversity: Chapter 4 Biodiversity & Evolution page 116-119***

* Be able to explain and/or describe the conditions required for natural selection that result in differential reproductive success.
* Be able to recognize the four general conditions necessary for natural selection to occur are:
1. More organisms are born than can survive.
2. Organisms vary in their characteristics, even within a species.
3. Variation is inherited.
4. Differences in reproduction and survival are due to variation among organisms.

***SC.912.L.15.3*** *Describe how biological diversity is increased by the origin of new species and how it is decreased by the natural process of extinction. DOK 2*

***Textbook reference: Unit 2 Biodiversity: Chapter 4 Biodiversity & Evolution page 120-127***

* Be able to describe how biological diversity is increased by the origin of new species and how it is decreased by the natural process of extinction.
* Be able to describe the factors that cause speciation.
* Be able to describe the factors that cause extinction.
* Be able to describe the factors that have lead to the decline in Florida Panthers
* Be able to differentiate between background extinction & mass extinction.