Unit 3 - Ecosystems

SCO 3.1: The student will be expected to demonstrate an understanding that an ecosystem consists of a complex network of organisms, including the following delineations:

3.1.1 Define the term ecosystem. (k)
3.1.2 Differentiate the terms food chain and food web. (k)
3.1.3 Outline the energy flow through an ecosystem. (k)

SCO 3.2: The student will be expected to demonstrate an understanding that the relationships among the living and non-living elements of an ecosystem are delicately balanced, including the following delineations:

3.2.1 Define the term biological amplification. (k)
3.2.2 Explain why there are fewer organisms at each trophic level. (k)
3.2.3 With reference to a food pyramid, explain how pesticides can reach toxic levels for organisms at a higher trophic level. (a)
3.2.4 Predict the effect on an ecosystem of the introduction of a new organism. (i)

SCO 3.3: The student will be expected to examine general interrelationships within and among world ecosystems, including the following delineations:

3.3.1 List the general characteristics of a given ecosystem. (k)
3.3.2 Analyze patterns in the distribution of world ecosystems. (a)
3.3.3 Predict which kind of ecosystem is likely to result from a stated set of climatic conditions (i)

SCO 3.4: The student will be expected to demonstrate an understanding of the characteristics of soil quality and the need to reduce the threat to our soils, including the following delineations:

3.4.1 Describe the factors that affect soil quality. (k)
3.4.2 Analyze the quality of a soil in terms of its soil texture. (a)
3.4.3 Draw conclusions about global patterns related to soil loss. (a)
3.4.4 Assess statements about soil availability. (I)

SCO 3.5: The student will be expected to recognize the need for humans to be sensitive to the fragile nature of ecosystems, including the following delineations:

3.5.1 Draw conclusions about possible short-term and long-term impacts of a threat to an ecosystem (a)
3.5.2 Anticipate actions needed to help ameliorate an environmental risk. (i)
3.5.3 Relate climatic zones to areas of environmental risk. (a)
3.5.4 Analyze value positions taken on environmental issues. (a)