

## 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. (l)

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)