



Leaf Pack Network

Pennsylvania State Standards, Environment and Ecology

Leaf Pack Network® curriculum meets the following Pennsylvania State Standards

Standard 4.1 Watersheds and Wetlands

- Grade 4 - 4.1.4
 - A. Identify various types of water environments.
 - B. Explain the differences between moving and still water.
 - C. Identify living things found in water environments.
 - E. Recognize the impact of watersheds and wetlands on animals and plants.
- Grade 7 - 4.1.7
 - A. Explain the role of the water cycle within a watershed.
 - B. Understand the role of the watershed.
 - C. Explain the effects of water on the life of organisms in a watershed.
 - E. Describe the impact of watersheds and wetlands on people.
- Grade 10 - 4.1.10
 - A. Describe changes that occur from a stream's origin to its final outflow.
 - B. Explain the relationship among landforms, vegetation and the amount and speed of water.
 - C. Describe the physical characteristics of a stream and determine the types of organisms found in aquatic environments.
 - E. Identify and describe natural and human events on watersheds and wetlands.
- Grade 12 - 4.1.12
 - A. Categorize stream order in a watershed.
 - B. Explain the relationships that exist within watersheds in the United States.
 - C. Analyze the parameters of a watershed.
 - E. Evaluate the tradeoffs, costs and benefits of conserving watersheds and wetlands.

Standard 4.3 Environmental Health

- Grade 4 - 4.3.4
 - C. Understand that the elements of natural systems are interdependent.
- Grade 7 - 4.3.7
 - B. Describe how human actions affect the health of the environment.
 - C. Explain biological diversity.
- Grade 10 - 4.3.10
 - B. Explain how multiple variables determine the effects of pollution on environmental health, natural processes and human practices.
 - C. Explain biological diversity as an indicator of a healthy environment.
- Grade 12 - 4.3.12
 - B. Analyze the local, regional and national impacts of environmental health.

Standard 4.6 Ecosystems and Their Interactions

- Grade 4 - 4.6.4
 - A. Understand that living things are dependent on nonliving things in the environment for survival.
 - C. Identify how ecosystems change over time.
- Grade 7 - 4.6.7
 - A. Explain the flows of energy and matter from organism to organism within an ecosystem.
 - C. Explain how ecosystems change over time.
- Grade 10 - 4.6.10
 - A. Explain the biotic and abiotic components of an ecosystem and their interaction.
 - C. Analyze how ecosystems change over time.
- Grade 12 - 4.6.12
 - A. Analyze the interdependence of an ecosystem.
 - C. Analyze how human action and natural changes affect the balance within an ecosystem.

Standard 4.7 Threatened, Endangered and Extinct Species

- Grade 4 - 4.7.4
 - A. Identify differences in living things.
 - B. Know that adaptations are important for survival.
- Grade 7 - 4.7.7
 - A. Describe diversity of plants and animals in ecosystems.
 - B. Explain how species of living organisms adapt to their environment.
- Grade 10 - 4.7.10
 - A. Explain the significance of diversity in ecosystems.
 - B. Explain how structure, function and behavior of plants and animals affect their ability to survive.
- Grade 12 - 4.7.12
 - A. Analyze biological diversity as it relates to the stability of an ecosystem.



The Leaf Pack Network is an initiative of Stroud™ Water Research Center. The Stroud Center seeks to advance knowledge and stewardship of freshwater systems through global research, education, and watershed restoration. Learn more at www.stroudcenter.org