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 form 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.