

# Discover the Albany Pine Bush Preserve: A Unique Habitat

Elementary, Intermediate, and Advanced  
Level Science  
Core Curriculum

Overview:

- Standard 1, Key Idea 1
- Standard 4, Key Ideas 1, 4-6
- Standard 6, Key Idea 1

Note: The blue text explains how the standard directly applies to the program.



Standard 1: Analysis, Inquiry, and Design  
Scientific Inquiry

Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.

Students will investigate a unique ecosystem that thrives between two urban centers. Through hands-on exploration students will understand how this place came to be and the plants and animals that depend on this habitat for survival.

Standard 4: The Living Environment

Key Idea 1: Living things are both similar to and different from each other and from nonliving things.

Throughout the program, students will realize that certain plants and animals that survive here would not survive in other habitats. They will also learn that fire, a nonliving factor in the health of this habitat, is one of the most important forces that maintains and perpetuates this rare environment.

Key Idea 4: The continuity of life is sustained through reproduction and development.

Students will explore plants that need fire to sustain their life and animals that require specific pine barrens plants for development and reproduction.

Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life.

Maintaining a dynamic equilibrium is a matter of life and death in the harsh pine barrens habitat. This is evidenced by plants equipped with enormous root structures to absorb enough water and avoid desiccation and by animal's ability to survive the hot and dry environment as well.

Key Idea 6: Plants and animals depend on each other and their physical environment.

While discussing the ecology of the environment, students will be introduced to certain animals that cannot survive without their host plants and certain Pine Bush species that need this specific environment to maintain their existence.

#### Standard 6: Interconnectedness: Common Themes Systems Thinking

Key Idea 1: Through systems thinking, people can recognize the commonalities that exist among all systems and how parts of a system interrelate and combine to perform specific functions.

The pine barrens ecosystem is unique, but it also shares commonalities with all natural areas and natural processes. Students will discover specific plants and animals that are a part of this ecosystem and depend upon several interrelating components to maintain their existence.