

LESSON PLAN 2: SPECIATION AND DIVERSITY IN APPALACHIA

MIDDLE SCHOOL STANDARDS ADDRESSED:

Pennsylvania	<p>4.5.7.D. Explain how biological diversity relates to the viability of ecosystems.</p> <ul style="list-style-type: none">• Compare and contrast monoculture with diverse ecosystems.• Explain how biological diversity relates to the ability of an ecosystem to adapt to change.• Explain how an adaptation is an inherited, structure, function, or behavior that helps an organism survive and reproduce. <p>4.2.7.C.: Use appropriate tools and techniques to analyze a freshwater environment.</p> <ul style="list-style-type: none">• Interpret physical, chemical, and biological data as a means of assessing the environmental quality of a freshwater environment. <p>4.2.8.C.: Describe how a diversity index is used to assess water quality.</p>
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HIGH SCHOOL STANDARDS ADDRESSED:

Pennsylvania	<p>4.1.12.A.: Analyze the significance of biological diversity in an ecosystem.</p> <ul style="list-style-type: none">• Explain how species adapt to limiting factors in an ecosystem.• Analyze the differences between natural causes and human causes of extinction.• Research wildlife management laws and their effects on biodiversity. <p>4.5.10.D: Research practices that impact biodiversity in specific ecosystems.</p> <ul style="list-style-type: none">• Analyze the relationship between habitat changes to plant and animal population fluctuations.
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