

LESSON PLAN 1: GENERAL ECOLOGICAL CONCEPTS

MIDDLE SCHOOL STANDARDS ADDRESSED:

Pennsylvania	<p>4.1.7.A.: Describe the relationships between biotic and abiotic components of an ecosystem.</p> <ul style="list-style-type: none">● Compare and contrast different biomes and their characteristics.● Describe symbiotic and predator/ prey relationships. <p>4.1.7.C.: Explain the flow of energy within an ecosystem.</p> <ul style="list-style-type: none">● Compare and contrast the flow of energy between organisms in different habitats.● Explain the concept of trophic levels.
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HIGH SCHOOL STANDARDS ADDRESSED:

Pennsylvania	<p>4.1.10.A.: Examine the effects of limiting factors on population dynamics.</p> <ul style="list-style-type: none">● Analyze possible causes of population fluctuations.● Explain the concept of carrying capacity in an ecosystem.● Describe how organisms become classified as threatened or endangered.● Describe how limiting factors cause organisms to become extinct. <p>4.1.10.C. Evaluate the efficiency of energy flow within a food web.</p> <ul style="list-style-type: none">● Describe how energy is converted from one form to another as it moves through a food web (photosynthetic, geothermal). <p>4.2.10.A.: Examine the interactions between abiotic and biotic factors within a watershed.</p> <ul style="list-style-type: none">● Investigate and analyze the effects of land use on the quality of water in a watershed.
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