

LESSON PLAN 1: GENERAL ECOLOGICAL CONCEPTS

MIDDLE SCHOOL STANDARDS ADDRESSED:

North Carolina	<p>6.L.2: Understand the flow of energy through ecosystems and the responses of populations to the biotic and abiotic factors in their environment.</p> <ul style="list-style-type: none">• 6.L.2.1: Summarize how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within food chains and food webs (terrestrial and aquatic) from producers to consumers to decomposers. <p>8.L.3: Understand how organisms interact with and respond to the biotic and abiotic components of their environment.</p> <ul style="list-style-type: none">• 8.L.3.1: Explain how factors such as food, water, shelter and space affect populations in an ecosystem.• 8.L.3.3: Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide and oxygen).
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HIGH SCHOOL STANDARDS ADDRESSED:

North Carolina	<p>Bio.2.1: Analyze the interdependence of living organisms within their environments.</p> <ul style="list-style-type: none">• Bio.2.1.2: Analyze the survival and reproductive success of organisms in terms of behavioral, structural, and reproductive adaptations.• Bio2.1.3: Explain various ways organisms interact with each other (including predation, competition, parasitism, mutualism) and with their environments resulting in stability within ecosystems.• Bio2.1.4: Explain why ecosystems can be relatively stable over hundreds or thousands of years, even though populations may fluctuate (emphasizing availability of food, availability of shelter, number of predators and disease).
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