

Ecosystems-5th Grade

Timeframe 10 weeks

May 10, 2012

Standards	Assessment/ Student Evidence	Academic Vocabulary	Resources
INQB Scientists plan and conduct different kinds of investigations, depending on the questions they are trying to answer. Types of investigations include systematic observations/ descriptions, field studies, models, open-ended explorations ,controlled experiments	<ul style="list-style-type: none"> Given a research question, plan an appropriate investigation, which may include systematic observations, field studies, models, open-ended explorations, or controlled experiments 	Investigation Observations Controlled experiment	<i>Ecosystems</i> Teacher Guide by Science & Technology for Children
INQC An experiment involves a comparison for an experiment to be valid and fair. All the things that can possibly change the outcome of the experiment should be kept the same, if possible.			
INQD Investigations involve systematic collection and recording of relevant observations and data.			
INQE Repeated trials are necessary for reliability.			
INQF A scientific model is a simplified representation of an object, event, system, or process created to understand some aspect of the natural world. It is important to realize that the model is not exactly the same as the thing being modeled.	<ul style="list-style-type: none"> Create a simple model to represent an event, system, or process Use the model to learn something about the event, system, or process Explain how the model is similar to and different from the thing being modeled 	Model	

Power Standards in green

Complementary Standards in yellow

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INQG Scientific explanations emphasize evidence, have logically consistent arguments, and use known scientific principles, models, and theories.	<ul style="list-style-type: none"> Generate a conclusion from a scientific investigation and show how the conclusion is supported by evidence and other scientific principles 	Conclusion	
INQH Scientists communicate the results of their investigations verbally and in writing. They review and ask questions about the results of other scientists' work.			
INQI Scientists report the results of their investigations honestly, even when those results show their predictions were wrong or when they cannot explain the results.			
PS3A Energy has many forms, such as heat, light, sound, motion, and electricity.	<ul style="list-style-type: none"> Identify different forms of energy (e.g., heat, light, sound, motion, electricity) in a system 	Forms of Energy	
LS1B Plants and animals have different structures and behaviors that serve different functions.	<ul style="list-style-type: none"> List parts of an animal's body and describe how it helps the animal meet its basic needs (e.g., the bones support the body so it can move; the blood carries food and oxygen throughout the body) Describe the function of a given animal behavior (e.g., pill bugs burrow underground for moisture and protection) 	Structures Behaviors Functions	
LS1D Plants and animals have structures and behaviors that respond to internal needs.			

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<p>LS2A An ecosystem includes all of the populations of living organisms and nonliving physical factors in a given area. Living organisms depend on one another and the nonliving physical factors in their ecosystem to help them survive.</p>	<ul style="list-style-type: none"> Identify the living and nonliving parts of an ecosystem Give examples to show how the plants and animals depend on one another for survival (e.g., worms decompose waste and return nutrients to the soil, which helps plants grow) Describe how the plants and animals in an ecosystem depend on nonliving resources 	<p>Ecosystems Organisms</p>	
<p>LS2B Plants make their own food using energy from the sun. Animals get food energy by eating plants and/of other animals that eat plants. Plants make it possible for animals to use the energy of sunlight.</p>			
<p>LS2C Plants and animals are related in food webs with producers (plants that make their own food), consumers (animals that eat producers and/or other animals), decomposer (primarily bacteria and fungi) that break down wastes and dead organisms, and return nutrients to the soil.</p>	<ul style="list-style-type: none"> Draw a simple food web given a list of three common organisms Draw arrows properly and identify the producers and consumers Compare the roles of producers, consumers, and decomposers in an ecosystem 	<p>Food Web Producer Consumer Decomposer Mineral nutrients</p>	
<p>LS2E All plants and animals change the ecosystem where they live. If this change reduces another organism's access to resources, that organism may move to another location or die.</p>			
<p>LS2F People affect ecosystems both positively and negatively.</p>			

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