

Interactions and Ecosystems

Key Concepts

"I understand..."

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|---|---|
| <input type="checkbox"/> Interactions and Interdependencies | <input type="checkbox"/> Species Distribution |
| <input type="checkbox"/> Environmental Monitoring | <input type="checkbox"/> Succession |
| <input type="checkbox"/> Environmental Impacts | <input type="checkbox"/> Endangered Species |
| <input type="checkbox"/> Producers, Consumers, Decomposers | <input type="checkbox"/> Extinction |
| <input type="checkbox"/> Nutrient Cycles and Energy Flow | <input type="checkbox"/> Environmental Management |

Outcomes

- I am able to investigate and describe the relationship between humans and their environments
 - I understand the 4 basic needs of living things
 - I understand that living organisms depend on one another and have adaptations that help them to survive
 - I understand that human impact on the environment has increased over time
 - I understand that in order to satisfy our needs and wants, humans impact ecosystems
 - I understand that humans need to reflect upon past actions and the impacts they have had on the environment when making personal and public decisions in order to minimize the impact on the environment

- I am able to trace the flow of energy and materials within an ecosystem
 - I can identify biotic and abiotic parts of an ecosystem and I know how they are connected
 - I am able to identify who the producers, consumers and decomposers are in an ecosystem
 - I can describe how energy is supplied and flows through a food web by looking at energy and nutrient storage in plants and animals, at nutrient cycling between biotic and abiotic components of the environment
 - I can predict the effects of changes to any part of a food web
 - I understand how water and carbon are cycled through an ecosystem
 - I can identify how pollutants enter an ecosystem and how they can become concentrated in some organisms

- I am able to monitor a local environment and assess the impacts environmental factors have on the growth, health, and reproduction of organisms in that environment
 - I understand that there are many different habitats and that different organisms live in different habitats depending on their adaptations
 - I understand how changes to an ecosystem can impact the interactions in that ecosystem
 - I understand both primary and secondary succession

- I understand that human knowledge, decisions, and actions will determine the sustainability life-supporting environments
 - I can identify intended and unintended consequences of human activities on an environment
 - I can provide examples of scientific investigations that can be conducted to inform environmental decision making
 - I understand that there are limits to our scientific knowledge in making decisions about life-supporting environments
 - I can analyze an environmental issue based on evidence from a variety of sources and can suggest possible actions and consequences