

How Do the Cycles of Life Maintain and Stabilize Species and Ecosystems?



Science Discipline: Life Sciences

Enduring Value: Cause and Effect

Essential Question(s):

Lesson 1: How are plants and animals affected by the seasons?

Lesson 2 Why do plants have life cycles? How do plant life cycles support their survival?

Lesson 3: Why do animals have life cycles? How do animal life cycles support their survival?

Lesson 4: How do the adaptations of both predators and prey support species' survival? How do predator/prey cycles support ecosystem balance?

Unit Standards:

1. Specific National Resource Council Standards (NRC, 1996) for each lesson
2. Common Core Standards Checklist
3. *Next Generation Science Standards Checklist* (May 2012 Draft: NRC, 2012)

Big Ideas/Science Concepts: Life Cycles

- Cycles are an important concept in the life sciences. Included are seasonal cycles, life and growth cycles, and predator/prey cycles.
- Plants and animals have evolved to adapt to seasonal changes in order to survive.
- Different animals go through different life cycles. There are simple life cycles, which animals such as fish, mammals, reptiles, and birds go through. Amphibians go through a life cycle called a metamorphosis and insects can go through what is termed a complete or incomplete metamorphosis depending on the organism.
- Plants also move through growth cycles such as seed, seedling, flowering plant, seed, and so on.
- Predator and Prey have cycles because they are connected to other organisms in terms of survival.

Resource: <http://www.kdzone.ws/animals/lifecycle.htm>