

<p>Important Concepts</p> <p>Interdependence</p> <p>3-5 Level</p>	<p>Alaska Science Content Standard C3 Students develop an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy.</p>
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Grade Level Expectations:

The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by:

- [3] **SC3.1** identifying and sorting examples of living and non-living things in the local environment (**L**)
- [3] **SC3.2** organizing a simple food chain of familiar plants and animals (**L**)
- [4] **SC3.1** identifying examples of living and non-living things and the relationship between them (e.g., living things need water, herbivores need plants)
- [4] **SC3.2** identifying a simple food chain of familiar plants and animals, diagramming how energy flows through it; describing the effects of removing one link
- [5] **SC3.1** diagramming how matter and energy are transferred within and between living and nonliving things
- [5] **SC3.2** organizing a simple food chain of familiar plants and animals that traces the source of the energy back to sunlight.

According to AAAS's Benchmarks for Science Literacy* some of the things that students should know and understand by the end of fifth grade are:

For any particular environment, different plants and animals thrive, some do not live as well, and some do not survive at all.

Insects and various other organisms depend on dead plant and animal material for food.

Organisms interact with one another in various ways besides providing food.

Many plants depend on animals for carrying their pollen to other plants or for dispersing their seeds.

Changes in an organism's habitat are sometimes beneficial to it and sometimes harmful.

Most microorganisms do not cause disease, and many are beneficial.

Almost all kinds of animals' food can be traced back to plants.

Some source of "fuel" is needed for all organisms to stay alive and grow.

Over the whole earth, organisms are growing, dying, decaying, and the old ones are producing new organisms.

*Project 2061, American Association for the Advancement of Science, Benchmarks for Science Literacy. New York: Oxford University Press, 1993.