Science Content Standards Supported by

Elkus Ranch Environmental Education Programs

Grade Four

Life Sciences

2. All organisms need energy and matter to live and grow. As a basis for understanding this concept:
    a. *Students know* plants are the primary source of matter and energy entering most food chains.
    b. *Students know* producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs and may compete with each other for resources in an ecosystem.
    c. *Students know* decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.

3. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:
    a. *Students know* ecosystems can be characterized by their living and nonliving components.
    b. *Students know* that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.
    c. *Students know* many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.
    d. *Students know* that most microorganisms do not cause disease and that many are beneficial.

Earth Sciences

4. Waves, wind, water, and ice shape and reshape Earth's land surface. As a basis for understanding this concept:
    a. *Students know* some changes in the earth are due to slow processes, such as erosion, and some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes.
    b. *Students know* natural processes, including freezing and thawing and the growth of roots, cause rocks to break down into smaller pieces.
    c. *Students know* moving water erodes landforms, reshaping the land by taking it away from some places and depositing it as pebbles, sand, silt, and mud in other places (weathering, transport, and deposition).

Investigation and Experimentation

6. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations.