interactions among organisms

dynamic nature of ecosystems

dependence of organisms on their environment

human impact

9-12

If a disturbance such as flood, fire, or the addition or loss of species occurs, the affected ecosystem may return to a system similar to the original one, or it may take a new direction, leading to a very different type of ecosystem. Changes in

Human beings are part of the earth's ecosystems. Human activities can, deliberately or inadvertently, alter the equilibrium in ecosystems.

Ecosystems can be reasonably stable over hundreds or thousands of years. As any population grows, its size is limited by one or more environmental factors: availability of food, availability of nesting sites, or number of predators.

The human species has a major impact on other species in many ways: reducing the amount of the earth's surface available to those other species, interfering with their food sources, changing the temperature and chemical composition of their habitats,

6-8

All organisms, both land-based and aquatic, are interconnected by their need for food. This network of interconnections is referred to as a food web. The entire earth can be considered a single global food web, and food webs can also

Changes in environmental conditions can affect the survival of individual organisms and entire species.

Given adequate resources and an absence of disease or predators, populations of organisms in ecosystems increase at rapid rates. Finite resources and other factors limit their growth.

Human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the earth's land, oceans, and atmosphere. Some of

In all environments, organisms with similar needs may compete with one another for limited resources, including food, space, water, air, and shelter.

Interactions between organisms may be for nourishment, reproduction, or protection and may benefit one of the organisms or both of them. Some species have become so dependent on each other that neither could survive without

The world contains a wide diversity of physical conditions, which creates a wide variety of environments: freshwater, marine, forest, desert, grassland, mountain, and others. In any particular environment, the growth and survival

Reproduction is necessary for the survival of any species.

3-5

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

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

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

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

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

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

K-2

Animals eat plants or other animals for food and may also use plants (or even other animals) for shelter and nesting.

Living things are found almost everywhere in the world. There are somewhat different kinds in different places.

Most living things need water, food, and air.