**KEY CONCEPT**

**As the human population grows, the demand for Earth’s resources increases.**

Nonrenewable resources are used faster than they form.

coal

Oil

Aluminum

Renewable resources cannot be used up or can replenish themselves over time.

wind

water

sunlight

Growing use of nonrenewable resources may lead to a crisis.

Resources must be properly managed.

KEY CONCEPT

Pollution of Earth’s freshwater supply threatens habitat and health.

Pollution can put entire freshwater ecosystems at risk.

Indicator species provide a sign of an ecosystem’s health.

amphibians

top predators

KEY CONCEPT

The impact of a growing human population threatens biodiversity.

Preserving biodiversity is important to the future of the biosphere.

The loss of biodiversity has long-term effects.

loss of medical and technological advances

extinction of species

loss of ecosystem stability

Loss of habitat eliminates species.

Habitat fragmentation prevents an organism from accessing its entire home range.

occurs when a barrier forms within the habitat

often caused by human development

Introduced species can disrupt stable relationships in an ecosystem.

An introduced species is one that is brought to an ecosystem by humans.

Accidental

purposeful

Invasive species can have an environmental and economic impact.

Invasive species often push out native species.

Burmese python (Florida Everglades)

mice (Australia)

Effective management of Earth’s resources will help meet the needs of the future.

KEY CONCEPT

Conservation methods can help protect and restore ecosystems.

Conservation practices focus on a few species but benefit entire ecosystems.

An ecological footprint is the amount of land needed to support a person.

The land must produce and maintain enough

food and water

shelter

energy

waste

Several factors affect the size of the ecological footprint.

amount and efficiency of resource use

amount and toxicity of waste produced