module: Ecology unit: Ecosystems and Communities

TEKS

- Investigate and analyze how organisms, populations, and communities respond to external factors
- 11D Describe how events and processes that occur during ecological succession can change populations and species diversity
- **12A** Interpret relationships, including predation, parasitism, commensalism, mutualism, and competition among organisms
- **12B** Compare variations and adaptations of organisms in different ecosystems
- **12D** Recognize that long-term survival of species is dependent on changing resource bases that are limited
- Describe how environmental change can impact ecosystem stability

instructional content:

- Habitat versus niche
 - Competitive exclusion
- Community interactions
- Competition
 - Predation
 - Mutualism
 - Commensalism
 - Parasitism
- Succession
 - Primary succession
 - Secondary succession
- **Biomes**
 - Climate factors
 - Major vegetation
 - Influence of latitude
- **Ecosystem stability**
 - Human impact

learning outcomes students will:

- Use all content and scientific process skills learned earlier in the course
- Locate and describe each major biome on a world map
- Explain how biomes are classified according to major vegetation type
- Describe the factors that affect distribution of plant species within an environment
- Relate the influence of latitude and local climate in the distribution of world biomes
- Describe examples of different adaptations of plants and animals to specific biomes
- Define the terms mutualism, commensalism, parasitism and provide examples of each type of interaction
- Explain the concept of ecological succession
- Distinguish between primary and secondary succession
- Describe the importance of pioneer species
- Explain the relationship of biodiversity and ecosystem stability
- Describe how human activities impact ecosystem stability
- Describe conservation methods that can help restore ecosystems

Incorporate scientific process skills during the instruction of all Biology concepts. Look for this icon at wardsci.com/TEKS for more information on scientific process skills.

Recommended Ward's Science products with item numbers for easy online searching:

instructional resources:

Ward's A Lesson on Succession Lab Activity 366218

Ecology Symbiosis Lab Activity 360889

Ward's Termite Symbiosis Kit 873520

Ecology Bingo 360972

Biome Bags Activity 360960

Ecosystems Challenge Game **360970**

Environmental Situation Cards 177375

Biomes of the Earth: Core Concepts DVD 745320



