

## TEKS

- 7D** Analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success
- 11B** Investigate and analyze how organisms, populations, and communities respond to external factors
- 12A** Interpret relationships, including predation, parasitism, commensalism, mutualism, and competition among organisms
- 12D** Recognize that long-term survival of species is dependent on changing resource bases that are limited
- 12F** Describe how environmental change can impact ecosystem stability

## instructional content:

- ✦ Characteristics of Populations
  - Density
  - Dispersion
- ✦ Population Growth
  - Factors that change population size
  - Exponential growth
  - Logistic growth
  - Carrying capacity
- ✦ Limits to Growth
  - Density-dependent limiting factors
  - Density-independent limiting factors

## learning outcomes students will:

- Use all content and scientific process skills learned earlier in the course
- Differentiate populations and communities
- Identify the characteristics used to describe populations
- Describe factors that affect population size
- Explain carrying capacity of populations
- Describe the relationship between competition and population size
- Explain density-dependent factors and provide examples
- Explain density-independent factors and provide examples



Incorporate scientific process skills during the instruction of all Biology concepts.  
**Look for this icon at [wardsci.com/TEKS](http://wardsci.com/TEKS) for more information on scientific process skills.**

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

### science tools:

[Ecology Field Clipboard 6730731](#)

### instructional resources:

[Here Today, Gone Tomorrow: Introduction of Non-Native Species Activity 4797800](#)

[Ward's What's in the Quadrat? Field Study Activity 366205](#)