

## TEKS

- 10A** Describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals
- 10C** Analyze the levels of organization in biological systems and relate the levels to each other and to the whole system
- 11A** Describe the role of internal feedback mechanisms in the maintenance of homeostasis
- 11B** Investigate and analyze how organisms, populations, and communities respond to external factors

## instructional content:

- ✦ Levels of Organization of Nervous System
  - Neurons
    - Structure and function
    - Types of neurons
    - Synapse
  - Systems
    - Central
    - Peripheral
    - Sensory
- ✦ Senses
  - Vision
  - Hearing
  - Touch
- ✦ Response to Stimuli
  - Types of receptors
  - Reflex
- ✦ Levels of Organization of Endocrine System
  - Hormones
  - Major Endocrine Glands
- ✦ Maintaining Homeostasis
  - Negative Feedback
  - Positive Feedback

## learning outcomes students will:

- Use all content and scientific process skills learned earlier in the course
- Identify and explain the three main roles of the nervous system
- Identify the structures of a neuron
- Name the three types of neurons and describe their roles
- Explain how a nerve impulse is transmitted between neurons
- Differentiate between the central nervous system and the peripheral nervous system
- Compare the somatic and autonomic nervous systems
- Summarize the steps involved in a reflex
- Explain how the sensory organs help maintain homeostasis
- Describe the actions of hormones
- Explain how hormones only affect certain cells
- Identify the major endocrine glands and the hormones they secrete
- Understand the importance of the hypothalamus and pituitary gland in maintaining homeostasis
- Explain the role of feedback mechanisms in maintaining homeostasis
- Compare the nervous system and endocrine system with types and speed of response to stimuli

 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:

[Ward's Brain Model 812006](#)  
[3B® Brain Model 813811](#)  
[Basic Ear Model 810931](#)  
[3B® Eye Model 813112](#)  
[Percussion Hammer 145056](#)  
[Ward's Student Classroom Dissection Set 149999](#)

### instructional resources:

[Nervous System Activity Model 821235](#)  
[Ward's Reaction Time Lab Activity 367050](#)  
[Ward's Testing Your Sense Organs Lab Activity 361226](#)  
[Ward's Cow Eye Dissection Lab 322070](#)  
[You're in Control: Endocrine System Manipulative 175085](#)

[3B® Anatomical Charts 330658](#)  
[Interactive Whiteboard Lessons: Systems of the Human Body I: Moving & Controlling the Body CD-ROM 745180](#)  
[Visual Learning Guides: Human Body 330477](#)