

## TEKS

- 4A** Compare and contrast prokaryotic and eukaryotic cells
- 8A** Define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community
- 8B** Categorize organisms using a hierarchical classification system based on similarities and differences shared among groups
- 8C** Compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals

## instructional content:

- ✦ Linnaean System of Classification
  - Taxonomy
  - Binomial nomenclature
  - Hierarchy
- ✦ Evolutionary Classification
  - Cladistics
  - Interpreting cladograms
- ✦ Domains and Kingdoms
  - Bacteria
    - Eubacteria
  - Archaea
    - Archaeobacteria
  - Eukarya
    - Protista
    - Fungi
    - Plantae
    - Animalia

## learning outcomes students will:

- Use all content and scientific process skills learned earlier in the course
- Recognize taxonomy as the science of naming and classifying organisms
- Describe the principles and importance of scientific classification and its limitations
- Name each taxon in the Linnaean system of classification from most general to most specific
- Explain how binomial nomenclature is used in classification
- Explain the limitations of using common names to identify organisms
- Use a dichotomous key to identify a named organism
- Interpret the main features of a cladogram
- Construct a cladogram using phenotypic data
- Interpret evolutionary relationships using a cladogram
- List the characteristics that distinguish the three domains
- Identify the major characteristics used to classify each kingdom



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:** \_\_\_\_\_

## instructional resources:

Concepts of Classification Lab Activity **367312**

Easy Tree Key: Dichotomous Tree Identification Kit **6730819**

Interactive Whiteboard Science Lesson CD: Six Kingdoms of Life **745176**

Ward's Constructing a Dichotomous Key Lab Activity **366215**