# module: Evolution unit: History of Life

#### **TEKS**

- Analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental
- **7B** Analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record
- **7G** Analyze and evaluate scientific explanations concerning the complexity of the cell
- Analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for selfreplicating life

## instructional content:

- Hypotheses on Origin of Life
  - Miller-Urev experiment
  - Iron-sulfur
  - RNA
- **★** Dating fossils
  - Relative dating
  - Radiometric dating
- ★ Geologic Time Scale
- **★** Endosymbiotic Theory

### learning outcomes students will:

- Use all content and scientific process skills learned earlier in the course
- Summarize the main ideas of the various hypotheses on the origin of life
- Describe how fossils have contributed evidence to support the theory of evolution
- · Explain the difference between relative dating and absolute dating
- Explain how index fossils are used to date rock layers
- Describe how the geologic record provides evidence for evolution
- Discuss the endosymbiotic theory explaining the evolution of eukaryotic cells

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:

#### science tools:

Student Stratigraphic Fossil Collection **503000** 

#### instructional resources:

Evolution Six Labs 4708000

Ward's Primordial Soup: Study of Evolution Lab Activity 366005

Evolution of Whales Kit 175086

Geologic Timeline with Insects Kit 4697400 Ward's Phanerozoic Geologic Timescale Chart 330205 Record of Life in the Rocks Collection 6861303



