

# Lesson Plan 15.1

## Natural Selection and the Evidence for Evolution



**KEY:** *SE* = Student Edition, *TWE* = Teacher Wraparound Edition, *TCR* = Teacher Classroom Resources, *NGS* = National Geographic Society videodisc, *BDOL* = Biology: The Dynamics of Life

pp. 400–411

2 class session(s)

### Section Objectives

- **Summarize** Darwin's theory of natural selection.
- **Explain** how the structural and physiological adaptations of organisms relate to natural selection.
- **Distinguish** among the types of evidence for evolution.

### National Science Content Standards

UCP.1–5; A.1, A.2; C.3, C.4, C.6; F.4; G.1, G.3

### Georgia QCC

1.1, 2.1, 12.1, 12.2, 12.3

### Focus

- \_\_\_\_\_ Section Focus Transparency 37 and Master
- \_\_\_\_\_ Getting Started Demo, *TWE* p. 400
- \_\_\_\_\_ Bellringer, *TWE* p. 401

### Teach

- \_\_\_\_\_ MiniLab 15-1, *SE* p. 406
- \_\_\_\_\_ Problem-Solving Lab 15-1, *SE* p. 407
- \_\_\_\_\_ Portfolio, *TWE* pp. 402, 406, 407, 410
- \_\_\_\_\_ Quick Demo, *TWE* p. 402
- \_\_\_\_\_ Biology Journal, *TWE* p. 405
- \_\_\_\_\_ *Concept Mapping*, *SE* p. 15 *TCR*
- \_\_\_\_\_ *BioLab and MiniLab Worksheets*, p. 71 *TCR*
- \_\_\_\_\_ *Laboratory Manual*, pp. 103–108 *TCR*
- \_\_\_\_\_ *Spanish Resources*

### Assess/Reteach

- \_\_\_\_\_ Section Assessment, *SE* p. 411
- \_\_\_\_\_ Check for Understanding, *TWE* p. 410
- \_\_\_\_\_ Reteach, *TWE* p. 410
- \_\_\_\_\_ *Reinforcement and Study Guide*, pp. 65–66, *TCR*
- \_\_\_\_\_ *Content Mastery*, pp. 73–74, 76 *TCR*

### Enrichment/Application

- \_\_\_\_\_ Project, *TWE* pp. 404, 408
- \_\_\_\_\_ Enrichment, *TWE* p. 405
- \_\_\_\_\_ Extension, *TWE* p. 411
- \_\_\_\_\_ *Critical Thinking/Problem Solving*, p. 15 *TCR*

### Close

- \_\_\_\_\_ Activity, *TWE* p. 411

### Chapter Assessment

- \_\_\_\_\_ Assessment, *TWE* pp. 403, 406, 407, 408, 411
- \_\_\_\_\_ *Alternate Assessment in the Science Classroom*, *TCR*
- \_\_\_\_\_ *Performance Assessment in the Biology Classroom*, *TCR*

### Multimedia Options

- \_\_\_\_\_ **BDOL CD-ROM** Section 15.1 Summary; Video: *The Galapagos, Adapted for Survival*; Exploration: *The Record of Life*
- \_\_\_\_\_ **MindJogger Videoquizzes**, Ch. 15 videotape
- \_\_\_\_\_ **ExamView®Pro Software**, Ch. 15
- \_\_\_\_\_ **Videotape:** *The Secret of Life: It's in the Genes: Evolution*
- \_\_\_\_\_ **Videodisc:** *The Secret of Life: Camouflage: Caterpillars, Spider; Horse Evolution, Patterns of Descent; The Infinite Voyage: The Great Dinosaur Hunt, The Great American Bone Rush Using the Internet in the Science Classroom*, *TCR*
- \_\_\_\_\_ Glencoe Science Web Site: [ga.science.glencoe.com](http://ga.science.glencoe.com)



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pp. 412–427

3 class session(s)

## Section Objectives

- **Summarize** the effects of the different types of natural selections on gene pools.
- **Relate** changes in genetic equilibrium to mechanisms of speciation.
- **Explain** the role of natural selection in convergent and divergent evolution.

## National Science Content Standards

UCP.1–5; A.1, A.2; C.1–4, C.6; F.4; G.1–3

## Georgia QCC

1.1, 1.2, 2.1, 11.1, 12.1, 12.2, 12.3

## Focus

- \_\_\_\_\_ Section Focus Transparency 38 and Master  
 \_\_\_\_\_ Bellringer, *TWE* p. 412

## Teach

- |  |   |
|--|---|
| _____ MiniLab 15-2, <i>SE</i> p. 415           | _____ Cultural Diversity, <i>TWE</i> p. 418                       |
| _____ Internet BioLab, <i>SE</i> p. 422        | _____ Portfolio, <i>TWE</i> p. 420                                |
| _____ Math Connection, <i>SE</i> p. 424        | _____ <i>BioLab and MiniLab Worksheets</i> , pp. 73–74 <i>TCR</i> |
| _____ Biology Journal, <i>TWE</i> pp. 413, 416 | _____ Basic Concepts Transparencies 21, 22 and<br>Masters         |
| _____ Quick Demo, <i>TWE</i> pp. 413, 418      | _____ <i>Spanish Resources</i>                                    |
| _____ Alternative Lab, <i>TWE</i> p. 414       |   |

## Assess/Reteach

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|---|---|
| _____ Section Assessment, <i>SE</i> p. 421        | _____ <i>Reinforcement and Study Guide</i> , pp. 67–68, <i>TCR</i>                                      |
| _____ Reinforcement, <i>TWE</i> pp. 416, 418, 420 | _____ Reteaching Skills Transparency 24 and Master<br><i>Content Mastery</i> , pp. 73, 75–76 <i>TCR</i> |
| _____ Check for Understanding, <i>TWE</i> p. 421  | _____ <i>5 Days to the Georgia High School Graduation Test</i> ,<br><i>TCR</i>                          |
| _____ Reteach, <i>TWE</i> p. 421                  |   |

## Enrichment/Application

- \_\_\_\_\_ Tech Prep, *TWE* p. 412  
 \_\_\_\_\_ Project, *TWE* p. 417  
 \_\_\_\_\_ Extension, *TWE* p. 421

## Close

- \_\_\_\_\_ Discussion, *TWE* p. 421

## Chapter Assessment

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|--|---|
| _____ Chapter Assessment, <i>SE</i> pp. 425–427                              | _____ <i>Alternate Assessment in the Science Classroom</i> , <i>TCR</i> |
| _____ Assessment, <i>TWE</i> pp. 415, 419, 421, 423                          | _____ <b>BDOL Interactive CD-ROM</b> , Chapter 15<br>quiz               |
| _____ <i>Chapter Assessment</i> , pp. 85–90 <i>TCR</i>                       |   |
| _____ <i>Performance Assessment in the Biology Classroom</i> ,<br><i>TCR</i> |   |

## Multimedia Options

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|---|--|
| _____ <b>BDOL CD-ROM</b> Section 15.2 Summary;<br>Exploration: <i>Selection Pressure</i>  | _____ <b>Videotape:</b> <i>The Secret of Life: Gone Before<br/>You Know It, Punctuated Equilibrium</i> |
| _____ <b>MindJogger Videoquizzes</b> , Ch. 15 videotape                                   | _____ <i>Using the Internet in the Science Classroom</i> , <i>TCR</i>                                  |
| _____ <b>ExamView®Pro Software</b> , Ch. 15   | _____ Glencoe Science Web Site:<br><b>ga.science.glencoe.com</b>                                       |
| _____ <b>BDOL Videodisc:</b> <i>Geographic Isolation</i> ,<br><i>Adapted for Survival</i> |  |