

# Lesson Plan 10.1

## Mendel's Laws of Heredity



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

pp. 258–268

3 class session(s)

### Section Objectives

- **Analyze** the results obtained by Gregor Mendel in his experiments with garden peas.
- **Predict** the possible offspring of a genetic cross by using a Punnett square.

### National Science Content Standards

UCP.1–3; UCP.5; A.1, A.2; G.1–3

### Georgia QCC

1.1, 1.3, 1.4, 2.1, 3.1, 10.1, 10.2, 19.3

### Focus

- \_\_\_\_\_ Section Focus Transparency 24 and Master Getting Started Demo, TWE p. 258
- \_\_\_\_\_ Bellringer, TWE p. 259

### Teach

- \_\_\_\_\_ MiniLab 10-1, SE p. 260
- \_\_\_\_\_ Problem-Solving Lab 10-1, SE p. 268
- \_\_\_\_\_ Internet BioLab, SE p. 280
- \_\_\_\_\_ Math Connection, SE p. 282
- \_\_\_\_\_ Portfolio, TWE p. 264
- \_\_\_\_\_ Quick Demo, TWE p. 265
- \_\_\_\_\_ Biology Journal, TWE p. 266
- \_\_\_\_\_ BioLab and MiniLab Worksheets, p. 43 TCR
- \_\_\_\_\_ Basic Concept Transparency 14 and Master Spanish Resources

### Assess/Reteach

- \_\_\_\_\_ Section Assessment, SE p. 268
- \_\_\_\_\_ Reinforcement, TWE p. 266
- \_\_\_\_\_ Check for Understanding, TWE p. 267
- \_\_\_\_\_ Reteach, TWE p. 267
- \_\_\_\_\_ Content Mastery, pp. 49–50, 52 TCR
- \_\_\_\_\_ Reinforcement and Study Guide, pp. 43–44 TCR
- \_\_\_\_\_ Reteaching Skills Transparency 16 and Master

### Enrichment/Application

- \_\_\_\_\_ Enrichment, TWE p. 261
- \_\_\_\_\_ Project, TWE p. 263
- \_\_\_\_\_ Tech Prep, TWE p. 265
- \_\_\_\_\_ Extension, TWE p. 267
- \_\_\_\_\_ Critical Thinking/Problem Solving, p. 10 TCR
- \_\_\_\_\_ Tech Prep Applications, pp. 17–18 TCR

### Close

- \_\_\_\_\_ Activity, TWE p. 268

### Chapter Assessment

- \_\_\_\_\_ Assessment, TWE pp. 260, 262, 267, 268
- \_\_\_\_\_ Performance Assessment in the Biology Classroom, TCR
- \_\_\_\_\_ Alternate Assessment in the Science Classroom, TCR

### Multimedia Options

- \_\_\_\_\_ BDOL CD-ROM Section 10.1 Summary; Explorations: *Trait Inheritance, Punnett Square*; Animation: *Punnett Square*
- \_\_\_\_\_ MindJogger Videoquizzes, Ch. 10 videotape
- \_\_\_\_\_ Videotape: *The Secret of Life: Sex and the Single Gene, Cell Development*
- \_\_\_\_\_ ExamView®Pro Software, Ch. 10
- \_\_\_\_\_ Using the Internet in the Science Classroom, TCR
- \_\_\_\_\_ Videodisc: *The Secret of Life: Heredity in Mendel's Peas, Dominant vs. Recessive, Sex and the Single Gene, Independent Assortment; The Infinite Voyage: Geometry of Life, Genetic Influence of Identical Twins*
- \_\_\_\_\_ Glencoe Science Web Site: [ga.science.glencoe.com](http://ga.science.glencoe.com)



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## Section Objectives

- **Analyze** how meiosis maintains a constant number of chromosomes within a species.
- **Infer** how meiosis leads to variation in a species.
- **Relate** Mendel's laws of heredity to the events of meiosis.

## National Science Content Standards

UCP.1–3; C.1, C.2; E.1, E.2; F.6; G.1–3

## Georgia QCC

1.1, 1.2, 1.3, 2.1, 3.2, 9.3, 9.4, 10.1, 10.2, 11.1, 11.2, 11.3

## Focus

- \_\_\_\_\_ Section Focus Transparency 25 and Master  
Bellringer, TWE, p. 269

## Teach

- |                                           |                                                            |
|-------------------------------------------|------------------------------------------------------------|
| _____ Problem-Solving Lab 10-2, SE p. 270 | _____ Biology Journal, TWE p. 276                          |
| _____ MiniLab 10-2, SE p. 274             | _____ <i>BioLab and MiniLab Worksheets</i> , pp. 45–48 TCR |
| _____ Inside Story, SE p. 277             | _____ <i>Laboratory Manual</i> , pp. 69–74 TCR             |
| _____ Cultural Diversity, TWE p. 270      | _____ <i>Concept Mapping</i> , p. 10 TCR                   |
| _____ Alternative Lab, TWE p. 272         | _____ Basic Concepts Transparency 15 and Master            |
| _____ Quick Demo, TWE p. 272              | _____ <i>Spanish Resources</i>                             |
| _____ Portfolio, TWE pp. 274, 275         |                                                            |

## Assess/Reteach

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|-------------------------------------------|----------------------------------------------------------------------|
| _____ Section Assessment, SE p. 279       | _____ <i>Reinforcement and Study Guide</i> , pp. 45–46 TCR           |
| _____ Check for Understanding, TWE p. 278 | _____ Reteaching Skills Transparency 17 and Master                   |
| _____ Reteach, TWE p. 278                 | _____ <i>Content Mastery</i> , pp. 49, 51–52 TCR                     |
|                                           | _____ <i>5 Days to the Georgia High School Graduation Test</i> , TCR |

## Enrichment/Application

- \_\_\_\_\_ Tech Prep, TWE p. 278  
\_\_\_\_\_ Extension, TWE p. 279

## Close

- \_\_\_\_\_ Discussion TWE p. 279

## Chapter Assessment

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|------------------------------------------------------------|--------------------------------------------------------------------|
| _____ Chapter Assessment, SE pp. 283–285                   | _____ <i>Performance Assessment in the Biology Classroom</i> , TCR |
| _____ Assessment, TWE p. 270, 272, 273, 274, 276, 279, 281 | _____ <i>Alternate Assessment in the Science Classroom</i> , TCR   |
| _____ <i>Chapter Assessment</i> , pp. 55–60 TCR            | _____ <b>BDOL Interactive CD-ROM</b> , Chapter 10 quiz             |

## Multimedia Options

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|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| _____ <b>BDOL CD-ROM</b> Section 10.2 Summary; Animation: <i>Meiosis</i> | _____ <b>BDOL Videodisc:</b> <i>Meiosis</i>                                                           |
| _____ <b>MindJogger Videoquizzes</b> , Ch. 10 videotape                  | _____ <b>Videodisc:</b> <i>The Secret of Life: Meiosis Ia, Ib, IIa, IIb</i>                           |
| _____ <b>ExamView®Pro Software</b> , Ch. 10                              | _____ Glencoe Science Web Site:<br><a href="http://ga.science.glencoe.com">ga.science.glencoe.com</a> |
| _____ <i>Using the Internet in the Science Classroom</i> , TCR           |                                                                                                       |