

Mendel and Meiosis

Chapter Pacing Guide

Please note that this pace is based on completing selected sections of the text in 90 classes, approximately 90 minutes each. Less time can be allotted for each chapter if you plan to teach the entire text.

Block	Content
2	10.1 Mendel's Laws of Heredity
1.5	10.2 Meiosis
0.5	Chapter Assessment

Block Schedule Planning Guide

10.1

Mendel's Laws of Heredity

pages 253–262

Pacing Guide

2 blocks

Lesson & MiniLab

KEY: *SE* = Student Edition, *TWE* = Teacher Wraparound Edition, *TCR* = Teacher Classroom Resources, *BDOL* = Biology: The Dynamics of Life, *URB* = Unit Resources Booklet

National Science Content Standards: UCP.1–3, UCP.5; A.1, A.2; G.1–3

Objectives

- **Relate** Mendel's two laws to the results he obtained in his experiments with garden peas.
- **Predict** the possible offspring of a genetic cross by using a Punnett square.

State/local objectives: _____

Lesson Resources

- _____ Section Focus Transparency 24 and Master, *TCR/URB*
- _____ Basic Concepts Transparency 14 and Master, *TCR/URB*
- _____ *MiniLab Worksheet*, p. 3 *URB*
- _____ *BioLab Worksheet*, pp. 5–6 *URB*
- _____ *Reinforcement and Study Guide*, *URB* English, pp. 9–10; Spanish, pp. 13–14
- _____ Reteaching Skills Transparency 16 and Master, *TCR/URB*

- _____ **MindJogger Videoquizzes**, Ch. 10
- _____ **Guided Reading Audio Summaries MP3**
- _____ **Virtual Labs CD-ROM**
Virtual Lab: *Punnett Squares*
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Glencoe Science Web site: **bdol.glencoe.com**

Optional Resources

- _____ *Critical Thinking/Problem Solving*, p. 18 *URB*

Multimedia Resources

- _____ **Interactive Chalkboard CD-ROM:**
Section 10.1 Presentation

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Distribute the corrected Chapter 9 tests while students complete the Bellringer for Section 10.1. 	Section Focus Transparency 24 and Master, <i>TCR/URB</i>	5 minutes
Discussion <ul style="list-style-type: none"> • Answer Chapter 9 test questions 	<i>Chapter Assessment</i> pp. 200–201 <i>URB</i>	5 minutes
Core Lesson <ul style="list-style-type: none"> • Introduce Chapter 10 with the Two-Minute Chapter Launcher. • Teach the main concepts of Section 10.1. • Do the Quick Demo. • Have students complete MiniLab 10.1. • Use the Basic Concepts Transparency. 	<i>TWE</i> , p. 252 <i>TWE</i> , pp. 253–262 <i>TWE</i> , p. 262 <i>SE</i> , p. 259 Basic Concepts Transparency 14 and Master, <i>TCR/URB</i>	65 minutes
In-Class Check <ul style="list-style-type: none"> • Have students complete Problem-Solving Lab 10.1 in small groups, and discuss the Thinking Critically questions. • Do the Check for Understanding and Reteach strategies. 	<i>SE</i> and <i>TWE</i> , p. 262 <i>TWE</i> , p. 261	65 minutes
Homework <ul style="list-style-type: none"> • Assign Section 10.1 Assessment. • Assign relevant questions from Chapter 10 Assessment. 	<i>SE</i> , p. 262 <i>SE</i> , pp. 277–279	25 minutes
Closing <ul style="list-style-type: none"> • Assess students with the Word Origin activity. 	<i>TWE</i> , p. 258	15 minutes

[total = 180 minutes]

Block Schedule Planning Guide

10.2

Meiosis

pages 263–273

National Science Content Standards: UCP.1–3; A.1, A.2; C.1, C.2; E.1, E.2; F.6; G.1–3

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.

State/local objectives: _____

Lesson Resources

- _____ Section Focus Transparency 25 and Master, *TCR/URB*
- _____ Basic Concepts Transparency 15 and Master, *TCR/URB*
- _____ *MiniLab Worksheet*, p. 4 *URB*
- _____ *Concept Mapping*, p. 17 *URB*
- _____ *Reinforcement and Study Guide*, *URB*
English, pp. 11–12; Spanish, pp. 15–16
- _____ Reteaching Skills Transparency 17 and Master, *TCR/URB*

- _____ *MindJogger Videoquizzes*, Ch. 10
- _____ **Guided Reading Audio Summaries MP3**
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Glencoe Science Web site: bdol.glencoe.com

Optional Resources

- _____ *Laboratory Manual*, pp. 53–54, 55–58 *TCR*

Multimedia Resources

- _____ **Interactive Chalkboard CD-ROM:**
Section 10.2 Presentation

Lesson Plan

Objectives	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Have students complete the Bellringer for Section 10.2. • Have students check homework answers. 	Section Focus Transparency 25 and Master, <i>TCR/URB</i> <i>TWE</i> , pp. 262, 277–279	10 minutes
Discussion <ul style="list-style-type: none"> • Answer homework questions. 	<i>TWE</i> , pp. 262, 277–279	5 minutes
Core Lesson <ul style="list-style-type: none"> • Teach the main concepts of Section 10.2. • Use the Visual Learning strategies to cover the Inside Story. 	<i>TWE</i> , pp. 263–273 <i>TWE</i> , p. 272	50 minutes
In-Class Check <ul style="list-style-type: none"> • Have students read the BioLab and begin the experiment. (Note: this lab will take 3–4 weeks to complete.) • Answer questions on Chapter 10 in preparation for the test. 	<i>SE</i> , pp. 274–275 <i>TWE</i> , pp. 253–279	45 minutes
Homework <ul style="list-style-type: none"> • Have students complete Section 10.2 Assessment. • Assign relevant questions from Chapter 10 Assessment. 	<i>SE</i> , p. 273 <i>SE</i> , pp. 277–279	15 minutes
Closing <ul style="list-style-type: none"> • Assess students with the Inquiry activity. 	<i>TWE</i> , p. 265	10 minutes

[total = 135 minutes]

Pacing Guide

1 1/2 blocks

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1/2 block

Review/Assessment

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Dynamics of Life, *URB* = Unit
Resources Booklet

Assessment Resources

- _____ *Chapter Assessment*, Ch. 10, *URB*
- _____ *Performance Assessment in the Biology Classroom*, *TCR*
- _____ *Alternate Assessment in the Science Classroom*, *TCR*

Multimedia Resources

- _____ *MindJogger Videoquizzes*, Ch. 10
- _____ *ExamView®Pro Testmaker CD-ROM*, Ch. 10
- _____ *Interactive Chalkboard CD-ROM:*
Ch. 10 Assessment

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Have students check homework answers. 	<i>TWE</i> , p. 273 <i>TWE</i> , pp. 277–279	5 minutes
Reviewing the Chapter <ul style="list-style-type: none"> • Answer homework questions. • Answer any final questions about Chapter 10. 	<i>TWE</i> , pp. 253–279	5 minutes
Assessment <ul style="list-style-type: none"> • Distribute the test and allow students to work quietly. 	<i>Chapter Assessment</i> , pp. 29–34 <i>URB</i>	30–35 minutes
Closing <ul style="list-style-type: none"> • As students complete the test, let them explore the Internet connection for Chapter 11. 	bdol.glencoe.com	5 minutes

[total = 45 minutes]