



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.

Period	Content
1	11.1 DNA: The Molecule of Heredity
2	11.2 From DNA to Protein
0.5	11.3 Genetic Changes
0.5	Chapter Assessment

Block Schedule Planning Guide 11.1

DNA: The Molecule of Heredity

pages 287–293

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

Objectives

- Analyze the structure of DNA.
- Determine how the structure of DNA enables it to reproduce itself accurately.

Georgia QCC: 1.1, 2.1, 6.1, 6.4, 8.1, 9.3

Lesson Resources

- _____ Section Focus Transparency 26 and Master
- _____ Basic Concepts Transparency 16 and Master
- _____ *Concept Mapping*, p. 11 TCR
- _____ *Reinforcement and Study Guide*, p. 47 TCR
- _____ *Content Mastery*, p. 54 TCR

Multimedia Resources

- _____ BDOL CD-ROM Section 11.1 Summary
- _____ MindJogger Videoquizzes, Ch. 11

- _____ English/Spanish Audiocassettes, Section 11.1
- _____ BDOL Videodisc, Disc 1, Side 1
- _____ *Using the Internet in the Science Classroom*, TCR
- _____ Glencoe Science Web Site:
ga.science.glencoe.com

Optional Resources

- _____ *Laboratory Manual*, pp. 75–78 TCR
- _____ *Spanish Resources*

Pacing Guide

1 Period

Lesson & Problem-Solving Lab

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

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Distribute the corrected Chapter 10 tests while students complete the Bellringer for Section 11.1. 	Section Focus Transparency 26 and Master	5 minutes
Discussion <ul style="list-style-type: none"> • Answer Chapter 10 test questions. 	<i>Chapter Assessment</i> , pp. 263–265 TCR	5 minutes
Core Lesson <ul style="list-style-type: none"> • Introduce Chapter 11 with the Getting Started Demo. • Teach the main concepts of Section 11.1. • Have students do the Project: Building a Model in small groups. • Do the Quick Demos. 	<i>TWE</i> , p. 286 <i>TWE</i> , pp. 287–293 <i>TWE</i> , p. 288 <i>TWE</i> , pp. 288, 291	40 minutes
In-Class Check <ul style="list-style-type: none"> • Have students complete Problem-Solving Lab 11-1 and assess their answers. • Use the Chalkboard Example. • Do the Check for Understanding and Reteach strategies. 	<i>SE</i> and <i>TWE</i> , p. 289 <i>TWE</i> , p. 290 <i>TWE</i> , p. 293	25 minutes
Homework <ul style="list-style-type: none"> • Have students complete Section 11.1 Assessment. • Assign the Inside Story: Critical Thinking question. • Assign relevant questions from Chapter 11 Assessment. 	<i>SE</i> , p. 293 <i>SE</i> , p. 292 <i>SE</i> , pp. 311–313	10 minutes
Closing <ul style="list-style-type: none"> • Assess students with the Close Discussion. 	<i>TWE</i> , p. 293	5 minutes

[total = 90 minutes]

Block Schedule Planning Guide

11.2

From DNA to Protein

pages 294–301

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

Pacing Guide

2 Periods

Lesson & BioLab

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

Objectives

- **Relate** the concept of the gene to the sequences of nucleotides in DNA.
- **Sequence** the steps involved in protein synthesis.

Georgia QCC: 1.1, 1.2, 4.3, 4.4, 6.1, 6.4, 8.2, 12.1

Lesson Resources

- _____ Section Focus Transparency 27 and Master
- _____ Basic Concepts Transparencies 17–18 and Masters
- _____ *BioLab and MiniLab Worksheets*, pp. 49–50 TCR
- _____ *Reinforcement and Study Guide*, pp. 48–49 TCR
- _____ *Content Mastery*, p. 55 TCR
- _____ Reteaching Skills Transparency 18 and Master

- _____ **MindJogger Videoquizzes**, Ch. 11
- _____ **English/Spanish Audiocassettes**, Section 11.2
- _____ **BDOL Videodisc**, Disc 1, Side 1
- _____ *Using the Internet in the Science Classroom*, TCR
- _____ Glencoe Science Web Site:
ga.science.glencoe.com

Multimedia Resources

- _____ BDOL CD-ROM Section 11.2 Summary

Optional Resources

- _____ *Critical Thinking/Problem Solving*, p. 11 TCR
- _____ *Spanish Resources*

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Have students complete the Bellringer for Section 11.2. • Have students check homework answers. 	Section Focus Transparency 27 and Master TWE, pp. 292, 293, 311–313	5 minutes
Discussion <ul style="list-style-type: none"> • Answer homework questions. 	TWE, pp. 292, 293, 311–313	5 minutes
Core Lesson <ul style="list-style-type: none"> • Introduce Section 11.2 with the Quick Demo. • Teach the main concepts of Section 11.2. • Have students complete the Critical Thinking/Problem Solving worksheet in small groups. 	TWE, p. 295 TWE, pp. 294–301 Critical Thinking/Problem Solving, p. 11 TCR	65 minutes
In-Class Check <ul style="list-style-type: none"> • Have students read the BioLab, follow the Procedure, and answer the Analyze and Conclude questions • Assess students' answers to the BioLab, and discuss their results. • Review Section 11.2 concepts with the Reinforcement and Study Guide. 	SE, pp. 308–309 TWE, pp. 308–309 Reinforcement and Study Guide, pp. 48–49 TCR	70 minutes
Homework <ul style="list-style-type: none"> • Have students complete Section 11.2 Assessment. • Assign relevant questions from Chapter 11 Assessment. • Have interested students do the Enrichment activity and share their results with the class. 	SE, p. 301 SE, pp. 311–313 TWE, p. 296	25 minutes
Closing <ul style="list-style-type: none"> • Assess students with the Close Activity: Using a Table. 	TWE, p. 301	10 minutes

[total = 180 minutes]

Block Schedule Planning Guide

11.3

Genetic Changes

pages 302–307

National Science Content Standards: UCP.1–3; A.1, A.2; B.3; C.1, C.2; E.1, E.2; F.1, F.4, F.5; G.1, G.2

Objectives

- **Categorize** the different kinds of mutations that can occur in DNA.
- **Compare** the effects of different kinds of mutations on cells and organisms.

Georgia QCC: 1.1, 1.2, 2.1, 3.2, 5.2, 6.1, 6.4, 8.1, 8.2, 11.2, 12.1, 12.3

Lesson Resources

- _____ Section Focus Transparency 28 and Master
- _____ *BioLab and MiniLab Worksheets*, pp. 51–56, *TCR*
- _____ *Reinforcement and Study Guide*, p. 50 *TCR*
- _____ Reteaching Skills Transparencies 19a–19b and Masters

Multimedia Resources

- _____ **BDOL CD-ROM** Section 11.3 Summary

- _____ **MindJogger Videoquizzes**, Ch. 11
- _____ **English/Spanish Audiocassettes**, Section 11.3
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Glencoe Science Web Site:
ga.science.glencoe.com

Optional Resources

- _____ *Laboratory Manual*, pp. 79–82 *TCR*
- _____ *Spanish Resources*

Pacing Guide

1/2 period

Lesson & MiniLab

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Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Have students complete the Bellringer for Section 11.3. • Have students check homework answers. 	Section Focus Transparency 28 and Master <i>TWE</i> , pp. 301, 311–313	5 minutes
Discussion <ul style="list-style-type: none"> • Answer homework questions. 	<i>TWE</i> , pp. 301, 311–313	5 minutes
Core Lesson <ul style="list-style-type: none"> • To introduce Section 11.3, have students complete the Biology Journal: Mutations and share their ideas with the class. • Teach the main concepts of Section 11.3. • Have students complete MiniLab 11-2 in small groups. 	<i>TWE</i> , p. 302 <i>TWE</i> , pp. 302–307 <i>SE</i> , p. 306	15 minutes
In-Class Check <ul style="list-style-type: none"> • Do the Quick Demo. • Use the Reinforcement activity. • Do the Check for Understanding and Reteach strategies. • Answer questions on Chapter 11 in preparation for the test. 	<i>TWE</i> , p. 304 <i>TWE</i> , p. 304 <i>TWE</i> , p. 307 <i>TWE</i> , pp. 286–313	10 minutes
Homework <ul style="list-style-type: none"> • Have students complete Section 11.3 Assessment. • Assign relevant questions from Chapter 11 Assessment. 	<i>SE</i> , p. 307 <i>SE</i> , pp. 311–313	5 minutes
Closing <ul style="list-style-type: none"> • Assess students with the Close Discussion. 	<i>TWE</i> , p. 307	5 minutes

[total = 45 minutes]

Pacing Guide

1/2 period

Review/Assessment

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

Assessment Resources

- _____ *Chapter Assessment*, Ch. 11 *TCR*
- _____ *Performance Assessment in the Biology Classroom*, *TCR*
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
- _____ *5 Days to the Georgia High School Graduation Test*, *TCR*

Multimedia Resources

- _____ *MindJogger Videoquizzes*, Ch. 11
- _____ *ExamView® Pro Software*, Ch. 11
- _____ *BDOL Interactive CD-ROM* Ch. 11 quiz

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Have students check homework answers. 	<i>TWE</i> , p. 307 <i>TWE</i> , pp. 311–313	5 minutes
Reviewing the Chapter <ul style="list-style-type: none"> • Answer homework questions. • Answer any final questions about Chapter 11. 	<i>TWE</i> , pp. 286–313	5 minutes
Assessment <ul style="list-style-type: none"> • Distribute the test and allow students to work quietly. 	<i>Chapter Assessment</i> , pp. 61–66 <i>TCR</i>	30–35 minutes
Closing <ul style="list-style-type: none"> • As students complete the test, let them explore the Internet connection for Chapter 12. 	ga.science.glencoe.com	0–5 minutes

[total = 45 minutes]