



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
0.5	12.1 Mendelian Inheritance of Human Traits
2.5	12.2 When Heredity Follows Different Rules
1	12.3 Complex Inheritance of Human Traits
0.5	Chapter Assessment

Block Schedule Planning Guide

12.1

Mendelian Inheritance of Human Traits

pages 315–320

Pacing Guide

1/2 period

Lesson & MiniLab

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

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

Objectives

- **Interpret** a pedigree.
- **Determine** human genetic disorders that are caused by inheritance of recessive alleles.
- **Predict** how a human disorder can be determined by a simple dominant allele.

Georgia QCC: 1.1, 2.1, 3.2, 10.1, 10.2

Lesson Resources

- _____ Section Focus Transparency 29 and Master
- _____ *BioLab and MiniLab Worksheets*, p. 57 *TCR*
- _____ *Reinforcement and Study Guide*, p. 51 *TCR*
- _____ *Content Mastery*, p. 58 *TCR*
- _____ Reteaching Skills Transparency 20 and Master

- _____ **English/Spanish Audiocassettes**, Section 12.1
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Glencoe Science Web Site:
ga.science.glencoe.com

Multimedia Resources

- _____ **BDOL CD-ROM** Section 12.1 Summary
- _____ **MindJogger Videoquizzes**, Ch.12

Optional Resources

- _____ *Tech Prep Applications*, pp. 17–18 *TCR*
- _____ *Critical Thinking/Problem Solving*, p. 12 *TCR*
- _____ *Spanish Resources*

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Distribute the corrected Chapter 11 tests while students complete the Bellringer for Section 12.1. 	Section Focus Transparency 29 and Master	5 minutes
Discussion <ul style="list-style-type: none"> • Answer Chapter 12 test questions. 	<i>Chapter Assessment</i> , pp. 269–271 <i>TCR</i>	5 minutes
Core Lesson <ul style="list-style-type: none"> • Introduce Chapter 12 with the Getting Started Demo. • Teach the main concepts of Section 12.1. • Do the Quick Demo. 	<i>TWE</i> , p. 314 <i>TWE</i> , pp. 315–320 <i>TWE</i> , p. 318	10–15 minutes
In-Class Check <ul style="list-style-type: none"> • Have students complete MiniLab 12-1 and discuss their results. • Do the Check for Understanding and Reteach strategies. • Use the Reteaching Skills Transparency. 	<i>SE</i> and <i>TWE</i> , p. 316 <i>TWE</i> , p. 320 Reteaching Skills Transparency 20 and Master	10–15 minutes
Homework <ul style="list-style-type: none"> • Have students complete Section 12.1 Assessment. • Assign the Biology Journal: Huntington's Disease. • Assign relevant questions from Chapter 12 Assessment. 	<i>SE</i> , p. 320 <i>TWE</i> , p. 319 <i>SE</i> , pp. 339–341	5 minutes
Closing <ul style="list-style-type: none"> • Assess students with the Close Discussion. 	<i>TWE</i> , p. 320	5 minutes

[total = 45 minutes]

Block Schedule Planning Guide

12.2

When Heredity Follows Different Rules

pages 321–328

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

Objectives

- **Distinguish** between incompletely dominant and codominant alleles.
- **Compare** multiple allelic and polygenic inheritance.
- **Analyze** the pattern of sex-linked inheritance.
- **Summarize** how internal and external environments affect gene expression.

Georgia QCC: 1.1, 10.1, 11.1

Lesson Resources

- _____ Section Focus Transparency 30 and Master
- _____ *Concept Mapping*, p. 12 *TCR*
- _____ *Reinforcement and Study Guide*, pp. 52–53 *TCR*
- _____ *Content Mastery*, p. 59 *TCR*
- _____ Reteaching Skills Transparency 21 and Master

Multimedia Resources

- _____ **BDOL CD-ROM** Section 12.2 Summary
- _____ **MindJogger Videoquizzes**, Ch. 12

- _____ **English/Spanish Audiocassettes**, Section 12.2
- _____ **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. 83–86 *TCR*
- _____ *Spanish Resources*

Pacing Guide

2 1/2 periods

Lesson & BioLab

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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 12.2. • Have students check homework answers. 	Section Focus Transparency 30 and Master <i>TWE</i> , pp. 320, 339–341	10 minutes
Discussion <ul style="list-style-type: none"> • Answer homework questions. 	<i>TWE</i> , pp. 320, 339–341	5 minutes
Core Lesson <ul style="list-style-type: none"> • Introduce Section 12.2 with the Discussion. • Teach the main concepts of Section 12.2. • Divide students into small groups, and have each group complete Problem-Solving Lab 12-2. • Discuss students' answers to the Thinking Critically questions. • Have students complete the Concept Mapping worksheet. 	<i>TWE</i> , p. 322 <i>TWE</i> , pp. 321–328 <i>SE</i> , p. 324 <i>TWE</i> , p. 324 <i>Concept Mapping</i> , p. 12 <i>TCR</i>	80 minutes
In-Class Check <ul style="list-style-type: none"> • Have students read the BioLab, plan their experiments, and begin their procedures. (Note: this lab will take about 3 weeks to complete.) • Have students do the Performance Assessment activity in pairs. • Review the main concepts of Section 12.2 with the Reteaching Skills Transparency. 	<i>SE</i> , p. 337 <i>TWE</i> , p. 323 Reteaching Skills Transparency 21 and Master	85 minutes
Homework <ul style="list-style-type: none"> • Have students complete Section 12.2 Assessment. • Assign the Portfolio: Eye Color. • Assign relevant questions from Chapter 12 Assessment. 	<i>SE</i> , p. 328 <i>TWE</i> , p. 325 <i>SE</i> , pp. 339–341	30 minutes
Closing <ul style="list-style-type: none"> • Assess students with the Close Activity. 	<i>TWE</i> , p. 328	15 minutes

[total = 225 minutes]

Block Schedule Planning Guide 12.3

Complex Inheritance of Human Traits

pages 329–335

Pacing Guide

1 Period

Lesson & MiniLab

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

Objectives

- **Compare** multiple allelic, sex-linked, and polygenic patterns of inheritance in humans.
- **Distinguish** among conditions in which extra autosomal or sex chromosomes exist.

Georgia QCC: 1.1, 1.2, 2.1, 3.2, 4.4, 10.1, 10.2, 11.1, 11.2

Lesson Resources

- _____ Section Focus Transparency 31 and Master
- _____ *BioLab and MiniLab Worksheets*, pp. 58–60 *TCR*
- _____ *Reinforcement and Study Guide*, p. 54 *TCR*

- _____ **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 12.3 Summary
- _____ **MindJogger Videoquizzes**, Ch. 12
- _____ **English/Spanish Audiocassettes**, Section 12.3

Optional Resources

- _____ *Laboratory Manual*, pp. 87–90 *TCR*
- _____ *Spanish Resources*

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Have students complete the Bellringer for Section 12.3. • Have students check homework answers. 	Section Focus Transparency 31 and Master <i>TWE</i> , pp. 328, 339–341	5 minutes
Discussion <ul style="list-style-type: none"> • Answer homework questions. 	<i>TWE</i> , pp. 328, 339–341	5 minutes
Core Lesson <ul style="list-style-type: none"> • Introduce Section 12.3 with the Microscope Activity. • Teach the main concepts of Section 12.3. • Have students read the Inside Story, then discuss the Critical Thinking question. • Do the Quick Demo 	<i>TWE</i> , p. 330 <i>TWE</i> , pp. 329–335 <i>SE</i> and <i>TWE</i> , p. 331 <i>TWE</i> , p. 334	35 minutes
In-Class Check <ul style="list-style-type: none"> • Have students complete MiniLab 12-2 and assess their results. • Have students complete the Portfolio Assessment. • Do the Check for Understanding and Reteach strategies. • Answer questions on Chapter 12 in preparation for the test. 	<i>SE</i> and <i>TWE</i> , p. 333 <i>TWE</i> , p. 330 <i>TWE</i> , p. 335 <i>TWE</i> , pp. 314–341	25 minutes
Homework <ul style="list-style-type: none"> • Have students complete Section 12.3 Assessment. • Assign relevant questions from Chapter 12 Assessment. 	<i>SE</i> , p. 335 <i>SE</i> , pp. 339–341	10 minutes
Closing <ul style="list-style-type: none"> • Assess students with the Close Discussion. 	<i>TWE</i> , p. 335	10 minutes

[total = 90 minutes]

Pacing Guide

1/2 period

Review/Assessment

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of Life

Assessment Resources

- _____ *Chapter Assessment*, Ch. 12 *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. 12
- _____ *ExamView® Pro Software*, Ch. 12
- _____ *BDOL Interactive CD-ROM* Ch. 12 quiz

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Have students check homework answers. 	<i>TWE</i> , p. 335 <i>TWE</i> , pp. 339–341	5 minutes
Reviewing the Chapter <ul style="list-style-type: none"> • Answer homework questions. • Answer any final questions about Chapter 12. 	<i>TWE</i> , pp. 314–341	5 minutes
Assessment <ul style="list-style-type: none"> • Distribute the test and allow students to work quietly. 	<i>Chapter Assessment</i> , pp. 67–72 <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 13. 	ga.science.glencoe.com	0–5 minutes

[total = 45 minutes]