

Lesson Plan

9.1

ATP in a Molecule



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

pp. 226–230

1 class session(s)

Section Objectives

- Explain why organisms need a supply of energy.
- Describe how energy is stored and released by ATP.

Focus

- _____ Section Focus Transparency 21 and Master Getting Started Demo, *TWE* p. 226
- _____ Bellringer, *TWE* p. 227

National Science Content Standards

UCP.2, UCP.3; A.1, A.2; B.3, B.6; C.1, C.5

Georgia QCC

1.1, 2.1, 5.2, 5.3, 6.1, 6.4, 7.1

Teach

- _____ Problem-Solving Lab 9-1, *SE* p. 228
- _____ Portfolio, *TWE* p. 227
- _____ Biology Journal, *TWE* p. 229
- _____ Quick Demo, *TWE* p. 229
- _____ Basic Concepts Transparency 11 and Master
- _____ *Spanish Resources*

Assess/Reteach

- _____ Section Assessment, *SE* p. 230
- _____ Check for Understanding, *TWE* p. 230
- _____ Reteach, *TWE* p. 230
- _____ *Content Mastery*, pp. 41–42, 44 *TCR*
- _____ *Reinforcement and Study Guide*, p. 37 *TCR*

Enrichment/Application

- _____ Extension, *TWE* p. 230
- _____ *Tech Prep Applications*, pp. 15–16 *TCR*

Close

- _____ Demonstration, *TWE* p. 230

Chapter Assessment

- _____ Assessment, *TWE* pp. 228, 229, 230
- _____ *Performance Assessment in the Biology Classroom*, *TCR*
- _____ *Alternate Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **BDOL CD-ROM** Section 9.1 Summary
- _____ **MindJogger Videoquizzes**, Ch. 9 videotape
- _____ **ExamView®Pro Software**, Ch. 9
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ **Videodisc:** *The Secret of Life: ATP Structure*
- _____ Glencoe Science Web Site: ga.science.glencoe.com

Lesson Plan 9.2

Photosynthesis: Trapping the Sun's Energy



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pp. 231–236

2 class session(s)

Section Objectives

- **Relate** the structure of chloroplasts to the events in photosynthesis.
- **Describe** light-dependent reactions.
- **Explain** the reactions and products of the light-independent Calvin cycle.

National Science Content Standards

UCP.2, UCP.3; A.1, A.2; B.3, B.6; C.1, C.5; G.1

Georgia QCC

1.1, 2.1, 3.2, 4.4, 6.1, 6.3, 7.1, 7.2

Focus

- _____ Section Focus Transparency 22 and Master
- _____ Bellringer *TWE*, p. 231

Teach

- _____ Problem-Solving Lab 9-2, *SE* p. 232
- _____ MiniLab 9-1, *SE* p. 234
- _____ Inside Story, *SE* p. 235
- _____ Careers in Biology, *SE* p. 236
- _____ Internet BioLab, *SE* p. 244
- _____ Chemistry Connection, *SE* p. 246
- _____ Portfolio, *TWE* p. 232
- _____ Quick Demo, *TWE* p. 233
- _____ Biology Journal, *TWE* p. 234
- _____ *BioLab and MiniLab Worksheets*, p. 99 *TCR*
- _____ *Concept Mapping*, p. 9 *TCR*
- _____ Basic Concepts Transparency 12 and Master
- _____ *Spanish Resources*

Assess/Reteach

- _____ Section Assessment, *SE* p. 236
- _____ Check for Understanding, *TWE* p. 235
- _____ Reteach, *TWE* p. 235
- _____ *Content Mastery*, pp. 41, 43–44 *TCR*
- _____ *Reinforcement and Study Guide*, pp. 38–39 *TCR*

Enrichment/Application

- _____ Project, *TWE* pp. 233, 235
- _____ Extension, *TWE* p. 236
- _____ *Critical Thinking/Problem Solving*, p. 9 *TCR*

Close

- _____ Discussion, *TWE* p. 236

Chapter Assessment

- _____ Assessment, *TWE* pp. 232, 233, 234, 236
- _____ *Performance Assessment in the Biology Classroom*, *TCR*
- _____ *Alternate Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **BDOL CD-ROM** Section 9.2 Summary; Animation: *The Light Reactions*
- _____ **MindJogger Videoquizzes**, Ch. 9 videotape
- _____ **ExamView®Pro Software**, Ch. 9
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ **BDOL Videodisc:** *The Light Reactions*
- _____ **Videodisc:** *The Secret of Life:* Chloroplast Membrane Structure, The Calvin Cycle; *The Infinite Voyage:* Unseen Worlds
- _____ Glencoe Science Web Site: ga.science.glencoe.com

Lesson Plan 9.3

Getting Energy to Make ATP



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pp. 237–249

3 class session(s)

Section Objectives

- Compare and contrast cellular respiration and fermentation.
- Explain how cells obtain energy from cellular respiration.

National Science Content Standards

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

Georgia QCC

1.1, 1.2, 1.3, 2.1, 4.4, 6.1, 7.1, 7.2, 7.3

Focus

_____ Section Focus Transparency 23 and Master
_____ Bellringer, TWE p. 237

Teach

_____ Inside Story, SE p. 239
_____ Problem-Solving Lab 9-3, SE p. 241
_____ MiniLab 9-2, SE p. 242
_____ Cultural Diversity, TWE p. 237
_____ Quick Demo, TWE p. 238
_____ Portfolio, TWE p. 239
_____ Alternative Lab, TWE p. 240
_____ BioLab and MiniLab Worksheets, pp. 40–42 TCR
_____ Laboratory Manual, pp. 61–64, 65–68 TCR
_____ Basic Concepts Transparency 13 and Master
_____ Spanish Resources

Assess/Reteach

_____ Section Assessment, SE p. 243
_____ Check for Understanding, TWE p. 243
_____ Reinforcement, TWE p. 238
_____ Reteach, TWE p. 243
_____ Reinforcement and Study Guide, p. 40 TCR
_____ Reteaching Skills Transparencies 14, 15 and
Masters
_____ Content Mastery, pp. 41, 43–44 TCR
_____ 5 Days to the Georgia High School Graduation Test,
TCR

Enrichment/Application

_____ Tech Prep, TWE p. 240
_____ Extension, TWE p. 243

Close

_____ Discussion, TWE p. 243

Chapter Assessment

_____ Chapter Assessment, SE pp. 247–249
_____ Assessment, TWE pp. 240, 241, 242, 243, 245
_____ BDOL Interactive CD-ROM, Chapter 9 quiz
_____ Chapter Assessment, pp. 49–54 TCR
_____ Performance Assessment in the Biology Classroom,
TCR
_____ Alternate Assessment in the Science Classroom, TCR

Multimedia Options

_____ BDOL CD-ROM Section 9.3 Summary
_____ MindJogger Videoquizzes, Ch. 9 videotape
_____ ExamView®Pro Software, Ch. 9
_____ Using the Internet in the Science Classroom, TCR
_____ Videodisc: *The Secret of Life*: Cell Energy, Cell Respiration, Citric Acid Cycle,
Electron Transport Chain; *The Infinite Voyage*: The Champion Within
_____ Glencoe Science Web Site: ga.science.glencoe.com