

Lesson Plan 6.1

Atoms and Their Interactions



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

pp. 144–155

1 class session(s)

Section Objectives

- **Relate** the particle structure of an atom to the identity of elements.
- **Relate** the formation of covalent and ionic chemical bonds to the stability of atoms.
- **Distinguish** mixtures and solutions.
- **Define** acids and bases and relate their importance to biological systems.

National Science Content Standards

UCP.1–3; A.1, A.2; B.1–3; C.5; D.2; E.1, E.2; F.1; G.1, G.2

Georgia QCC

1.1, 1.2, 1.3, 2.1, 3.2, 5.1, 6.1, 6.2

Focus

- _____ Section Focus Transparency 12 and Master Getting Started Demo, TWE p. 144
- _____ Bellringer, TWE p. 145

Teach

- _____ Problem-Solving Lab 6-1, SE p. 149
- _____ Careers in Biology, SE p. 154
- _____ MiniLab 6-1, SE p. 155
- _____ Design Your Own BioLab, SE p. 168
- _____ Portfolio, TWE pp. 146, 153
- _____ Quick Demo, TWE pp. 146, 150
- _____ Biology Journal, TWE pp. 149, 152
- _____ Cultural Diversity, TWE p.150
- _____ BioLab and MiniLab Worksheets, p. 27 TCR
- _____ Basic Concepts Transparencies 4, 5a, 5b and Masters
- _____ Spanish Resources

Assess/Reteach

- _____ Section Assessment, SE p. 155
- _____ Reinforcement, TWE p. 151
- _____ Check for Understanding, TWE p. 153
- _____ Reteach, TWE p. 153
- _____ Content Mastery, pp. 29–30, 32 TCR
- _____ Reinforcement and Study Guide, pp. 25–26 TCR

Enrichment/Application

- _____ Enrichment, TWE pp. 148, 152
- _____ Project, TWE p. 151
- _____ Extension, TWE p. 153

Close

- _____ Activity, TWE p. 154

Chapter Assessment

- _____ Assessment, TWE pp. 147, 149, 153, 155
- _____ Performance Assessment in the Biology Classroom, TCR
- _____ Alternate Assessment in the Science Classroom, TCR

Multimedia Options

- _____ BDOL CD-ROM Section 6.1 Summary; Animation: *The Covalent Bond*, *The Ionic Bond*; Exploration: *Acid Base Test*
- _____ MindJogger Videoquizzes, Ch. 6 videotape
- _____ ExamView®Pro Software, Ch. 6
- _____ Using the Internet in the Science Classroom, TCR
- _____ BDOL Videodisc: *Covalent Bonding*, *Ionic Bonding*
- _____ Videodisc: *The Secret of Life*: Composition of Living Organisms, Hydrogen/Carbon Atom, Oxygen Atom, Water Molecule; *The Infinite Voyage*: Unseen Worlds, The Scanning Tunneling Microscope, The Future of the Past
- _____ Glencoe Science Web Site: ga.science.glencoe.com

Lesson Plan

6.2

Water and Diffusion



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pp. 156–160

1 class session(s)

Section Objectives

- **Relate** water's unique features to polarity.
- **Explain** how the process of diffusion occurs and why it is important to cells.

National Science Content Standards

UCP.2–4; A.1, A.2; C.5; G.1, G.3

Georgia QCC

1.1, 1.2, 1.3, 6.1, 6.3

Focus

- _____ Section Focus Transparency 13 and Master
- _____ Bellringer, *TWE* p. 156

Teach

- _____ Problem-Solving Lab 6-2, *SE* p. 158
- _____ MiniLab 6-2, *SE* p. 159
- _____ Biology Journal, *TWE* pp. 157, 158
- _____ Quick Demo, *TWE* p. 157
- _____ Portfolio, *TWE* p. 159
- _____ *BioLab and MiniLab Worksheets*, p. 28 *TCR*
- _____ *Concept Mapping*, p. 6 *TCR*
- _____ *Spanish Resources*

Assess/Reteach

- _____ Section Assessment, *SE* p. 160
- _____ Check for Understanding, *TWE* p. 160
- _____ Reteach, *TWE* p. 160
- _____ *Content Mastery*, pp. 29–32 *TCR*
- _____ *Reinforcement and Study Guide*, p. 27 *TCR*

Enrichment/Application

- _____ Extension, *TWE* p. 160

Close

- _____ Activity, *TWE* p.160

Chapter Assessment

- _____ Assessment, *TWE* pp. 158, 159, 160
- _____ *Performance Assessment in the Biology Classroom*, *TCR*
- _____ *Alternate Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **BDOL CD-ROM** Section 6.2 Summary; Video: *Properties of Water*
- _____ **MindJogger Videoquizzes**, Ch. 6 videotape
- _____ **ExamView®Pro Software**, Ch. 6
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ **Videodisc:** *The Secret of Life: Diffusion of Water*
- _____ Glencoe Science Web Site: ga.science.glencoe.com



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pp. 161–173

3 class session(s)

Section Objectives

- **Classify** the variety of organic compounds.
- **Describe** how polymers are formed and broken down in organisms.
- **Compare** the chemical structures of carbohydrates, lipids, proteins, and nucleic acids, and relate their importance to living things.

National Science Content Standards

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

Georgia QCC

1.1, 1.2, 1.3, 2.1, 3.2, 6.1, 6.2, 6.3, 6.4

Focus

- _____ Section Focus Transparency 14 and Master
 _____ Bellringer, *TWE* p. 161

Teach

- _____ Inside Story, *SE* p. 166
 _____ BioTechnology, *SE* p. 170
 _____ Biology Journal, *TWE* p. 161
 _____ Portfolio, *TWE* pp. 162, 163
 _____ Quick Demo, *TWE* p. 163
- _____ Alternative Lab, *TWE* p. 164
 _____ *BioLab and MiniLab Worksheets*, pp. 29–30 *TCR*
 _____ *Laboratory Manual*, pp. 43–46 *TCR*
 _____ *Spanish Resources*

Assess/Reteach

- _____ Section Assessment, *SE* p. 167
 _____ Check for Understanding, *TWE* p. 166
 _____ Reteach, *TWE* p. 167
- _____ *Reinforcement and Study Guide*, p. 28 *TCR*
 _____ Reteaching Skills Transparency 8 and Master
 _____ *Content Mastery*, pp. 29, 31–32 *TCR*
 _____ *5 Days to the Georgia High School Graduation Test*, *TCR*

Enrichment/Application

- _____ Tech Prep, *TWE* p. 162
 _____ Enrichment, *TWE* p. 165
 _____ Extension, *TWE* p. 167
 _____ *Critical Thinking/Problem Solving*, p. 6 *TCR*
 _____ *Tech Prep Applications*, pp. 9–10 *TCR*

Close

- _____ Discussion, *TWE* p. 167

Chapter Assessment

- _____ Chapter Assessment, *SE* pp. 171–173
 _____ Assessment, *TWE* pp. 162, 165, 167, 169
 _____ *Chapter Assessment*, pp. 31–36 *TCR*
 _____ *Performance Assessment in the Biology Classroom*, *TCR*
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
 _____ **BDOL Interactive CD-ROM**, Chapter 6 quiz

Multimedia Options

- _____ **BDOL CD-ROM** Section 6.3 Summary;
 Animation: *Enzyme Action*
- _____ **MindJogger Videoquizzes**, Ch. 6 videotape
- _____ **ExamView®Pro Software**, Ch. 6
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ **Videodisc:** *The Secret of Life: Carbon Bonds, Monosaccharide, Disaccharide, Structure of DNA; The Infinite Voyage: The Future of the Past*
 Glencoe Science Web Site:
ga.science.glencoe.com