LESSON PLAN 15.1

Key: *SE* = Student Edition, *TWE* = Teacher Wraparound Edition,

What are solutions?

▶ *pages 453–461*
▶ *1 class session(s)*

Section Objectives

- **Describe** the characteristics of solutions and **identify** the various types.
- **Relate** intermolecular forces and the process of solvation.
- **Define** solubility and **identify** factors affecting it.

National Science Content Standards

UCP.1, UCP.2, UCP.4; B.2, B.4, B.5, B.6

Georgia QCC

1, 2.1, 3.1, 8.3, 8.4, 16, 16.1, 16.2

Focus

_____ Section Focus Transparency 55 and Master

Teach

_____ Discovery Lab, *SE* p. 453
_____ Quick Demo, *TWE* pp. 454, 459, 460
_____ Identifying Misconceptions, *TWE* p. 455
_____ Chemistry Journal, *TWE* pp. 457, 460
_____ *Laboratory Manual*, pp. 113–116 *TCR*
_____ *Small-Scale Laboratory Manual*, pp. 41–44 *TCR*
_____ Teaching Transparency 45 and Master
_____ *Spanish Resources*, 15.1 *TCR*

Assess

_____ Section Assessment, *SE* p. 461
_____ Check for Understanding, *TWE* p. 461
_____ Reteach, *TWE* p. 461
_____ *Study Guide for Content Mastery*, pp. 85–86 *TCR*

Enrichment/Application

_____ Extension, *TWE* p. 461
_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

_____ Assessment, *TWE* pp. 455, 459, 461
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

_____ **Chemistry Interactive CD-ROM,** Section 15.1 Animation and Videos
_____ **Vocabulary PuzzleMaker Software,** Ch. 15
_____ **Cosmic Chemistry Videodisc,** Disc 1, Side 2; Disc 3, Side 5
_____ *Using the Internet in the Science Classroom*, *TCR*
_____ Chemistry Web site: **ga.science.glencoe.com**

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LESSON PLAN 15.2

Key: *SE* = Student Edition, *TWE* = Teacher Wraparound Edition,

Solution Concentration

▶ *pages 462–470*
▶ *2 class session(s)*

Section Objectives

- **State** the concentrations of solutions in different ways.
- **Calculate** the concentrations of solutions.

National Science Content Standards

UCP.1, UCP.2, UCP.4; A.1, A.2; B.2

Georgia QCC

16.3

Focus

_____ Section Focus Transparency 56 and Master

Teach

_____ ChemLab 15, *SE* pp. 480–481
_____ Quick Demo, *TWE* pp. 464, 466
_____ Chemistry Journal, *TWE* pp. 464, 466
_____ *ChemLab and MiniLab Worksheets*, pp. 58–60 *TCR*
_____ *Laboratory Manual*, pp. 117–120 *TCR*
_____ *Spanish Resources*, 15.2 *TCR*

Assess

_____ Section Assessment, *SE* p. 470
_____ Check for Understanding, *TWE* p. 469
_____ Reteach, *TWE* p. 470
_____ *Study Guide for Content Mastery*, pp. 87–88 *TCR*
_____ Math Skills Transparency 22 and Master

Enrichment/Application

_____ Extension, *TWE* p. 468
_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

_____ Assessment, *TWE* pp. 467, 470
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

_____ **Vocabulary PuzzleMaker Software,** Ch. 15
_____ *Using the Internet in the Science Classroom*, *TCR*
_____ Chemistry Web site: **ga.science.glencoe.com**

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LESSON PLAN 15.3

Key: *SE* = Student Edition, *TWE* = Teacher Wraparound Edition,

Colligative Properties of Solutions

▶ *pages 471–475*
▶ *2 class session(s)*

Section Objectives

- **Explain** the nature of colligative properties.
- **Describe** four colligative properties of solutions.
- **Calculate** the boiling point elevation and the freezing point depression of a solution.

National Science Content Standards

UCP.1, UCP.2, UCP.4; A.1; B.2, B.4, B.6

Georgia QCC

1, 1.2, 3.1, 16.4

Focus

_____ Section Focus Transparency 57 and Master

Teach

_____ MiniLab, *SE* p. 473
_____ Quick Demo, *TWE* p. 474
_____ Identifying Misconceptions, *TWE* p. 472
_____ Chemistry Journal, *TWE* p. 474
_____ *ChemLab and MiniLab Worksheets*, p. 57 *TCR*
_____ *CBL Laboratory Manual*, pp. 21–24 *TCR*
_____ Teaching Transparency 46 and Master
_____ *Spanish Resources*, 15.3 *TCR*

Assess

_____ Section Assessment, *SE* p. 475
_____ Check for Understanding, *TWE* p. 474
_____ Reteach, *TWE* p. 474
_____ *Study Guide for Content Mastery*, p. 89 *TCR*
_____ Math Skills Transparency 23 and Master

Enrichment/Application

_____ Extension, *TWE* p. 474
_____ *Challenge Problems*, p. 15 *TCR*
_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

_____ Assessment, *TWE* pp. 474, 475
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

_____ **Vocabulary PuzzleMaker Software,** Ch. 15
_____ **Cosmic Chemistry Videodisc,** Disc 1, Side 2
_____ *Using the Internet in the Science Classroom*, *TCR*
_____ Chemistry Web site: **ga.science.glencoe.com**

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LESSON PLAN 15.4

Key: *SE* = Student Edition, *TWE* = Teacher Wraparound Edition,

Heterogeneous Mixtures

▶ *pages 476–479*
▶ *2 class session(s)*

Section Objectives

- **Identify** the properties of suspensions and colloids.
- **Describe** different types of colloids.
- **Explain** the electrostatic forces in colloids.

National Science Content Standards

UCP.1, UCP.2, UCP.4; A.1, A.2; B.2, B.4, B.5, B.6; F.1, F.6

Georgia QCC

1, 1.2, 2, 2.1, 3.1, 8, 8.3, 8.4, 9.4, 15.4, 16, 16.2, 16.3, 16.4, 16.5

Focus

_____ Section Focus Transparency 58 and Master

Teach

_____ Problem-Solving Lab, *SE* p. 478
_____ Chemistry and Society, *SE* p. 482
_____ Quick Demo, *TWE* p. 477
_____ Identifying Misconceptions, *TWE* p. 477
_____ Chemistry Journal, *TWE* p. 477
_____ *Small-Scale Laboratory Manual*, pp. 41–44 *TCR*
_____ *Spanish Resources*, 15.4 *TCR*

Assess

_____ Section Assessment, *SE* p. 479
_____ Check for Understanding, *TWE* p. 479
_____ Reteach, *TWE* p. 479
_____ *Study Guide for Content Mastery*, p. 90 *TCR*
_____ *Reviewing Chemistry: Preparing for the Georgia High School Graduation Test*, *TCR*

Enrichment/Application

_____ Extension, *TWE* p. 479
_____ *Supplemental Problems*, p. 21 *TCR*
_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

_____ Chapter 15 Assessment, *SE* pp. 484–487
_____ Assessment, *TWE* pp. 479, 481
_____ *Chapter Assessment*, pp. 85–90 *TCR*
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

_____ **Vocabulary PuzzleMaker Software,** Ch. 15
_____ **MindJogger Videoquizzes,** Ch. 15
_____ **TestCheck Software,** Ch. 15
_____ **Chemistry Interactive CD-ROM,** Chapter 15 quiz
_____ *Using the Internet in the Science Classroom*, *TCR*
_____ Chemistry Web site: **ga.science.glencoe.com**

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