LESSON PLAN 12.1

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

What is stoichiometry?

▶ *pages 353–357*
▶ *1 class session(s)*

Section Objectives

- **Identify** the quantitative relationships in a balanced chemical equation.
- **Determine** the mole ratios from a balanced chemical equation.

National Science Content Standards

UCP.1, UCP.3; A.1; B.3; E.1

Georgia QCC

1, 1.2, 2.1, 3.1, 8, 9.1, 9.4, 9.6

Focus

_____ Section Focus Transparency 43 and Master

Teach

_____ Discovery Lab, *SE* p. 353
_____ Quick Demo, *TWE* p. 354
_____ Chemistry Journal, *TWE* p. 355
_____ *Spanish Resources*, 12.1 *TCR*

Assess

_____ Section Assessment, *SE* p. 357
_____ Check for Understanding, *TWE* p. 355
_____ Reteach, *TWE* p. 355
_____ *Study Guide for Content Mastery*, pp. 67–68 *TCR*
_____ Math Skills Transparency 15 and Master

Enrichment/Application

_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

_____ Assessment, *TWE* p. 355
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

_____ **Chemistry Interactive CD-ROM,** Section 12.1 Experiment and Exploration
_____ **Vocabulary PuzzleMaker Software,** Ch. 12
_____ **Cosmic Chemistry Videodisc,** Disc 3, Side 6; 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 12.2

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

Stoichiometric Calculations

▶ *pages 358–363*
▶ *3 class session(s)*

Section Objectives

- **Explain** the sequence of steps used in solving stoichiometric problems.
- **Use** the steps to solve stoichiometric problems.

National Science Content Standards

UCP.1, UCP.3: A.1; B.3; E.1

Georgia QCC

1, 1.2, 3.1, 9.1, 9.4, 9.6

Focus

_____ Section Focus Transparency 44 and Master

Teach

_____ MiniLab, *SE* p. 362
_____ ChemLab 12, *SE* p. 374–375
_____ Quick Demo, *TWE* pp. 359, 360
_____ Chemistry Journal, *TWE* p. 362
_____ *ChemLab and MiniLab Worksheets*, pp. 45–48 *TCR*
_____ Teaching Transparency 38 and Master
_____ *Spanish Resources*, 12.2 *TCR*

Assess

_____ Section Assessment, *SE* p. 363
_____ Check for Understanding, *TWE* p. 363
_____ Reteach, *TWE* p. 363
_____ *Study Guide for Content Mastery*, pp. 69–70 *TCR*
_____ Math Skills Transparencies 16–17 and Masters

Enrichment/Application

_____ *Challenge Problems*, p. 12 *TCR*
_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

_____ Assessment, *TWE* pp. 360, 362, 363
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

_____ **Vocabulary PuzzleMaker Software,** Ch. 12
_____ *Using the Internet in the Science Classroom*, *TCR*
_____ Chemistry Web site: **ga.science.glencoe.com**

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LESSON PLAN 12.3

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

Limiting Reactants

▶ *pages 364–369*
▶ *2 class session(s)*

Section Objectives

- **Identify** the limiting reactant in a chemical equation.
- **Identify** the excess reactant and calculate the amount remaining after the reaction is complete.
- **Calculate** the mass of a product when the amounts of more than one reactant are given.

National Science Content Standards

UCP.1, UCP.3; B.3; E.1, E.2; F.1

Georgia QCC

9.1, 9.4, 9.6

Focus

_____ Section Focus Transparency 45 and Master

Teach

_____ Identifying Misconceptions, *TWE* p. 366
_____ Chemistry Journal, *TWE* p. 368
_____ *Laboratory Manual*, pp. 89–96 *TCR*
_____ Teaching Transparency 39 and Master
_____ *Spanish Resources*, 12.3 *TCR*

Assess

_____ Section Assessment, SE p. 369
_____ Check for Understanding, *TWE* p. 368
_____ Reteach, *TWE* p. 369
_____ *Study Guide for Content Mastery*, p. 71 *TCR*

Enrichment/Application

_____ Extension, *TWE* p. 369
_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

_____ Assessment, *TWE* pp. 365, 367, 369
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

_____ **Vocabulary PuzzleMaker Software,** Ch. 12
_____ **Cosmic Chemistry Videodisc,** Disc 2, Side 3
_____ *Using the Internet in the Science Classroom*, *TCR*
_____ Chemistry Web site: **ga.science.glencoe.com**

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

Percent Yield

▶ *pages 370–373*
▶ *3 class session(s)*

Section Objectives

- **Calculate** the theoretical yield of a chemical reaction from data.
- **Determine** the percent yield for a chemical reaction.

National Science Content Standards

UCP.1, UCP.3; A.1, A.2; B.3, B.6; E.1, E.2; F.4, F.5, F.6; G.1

Georgia QCC

1, 1.2, 2, 2.1, 3.1, 6, 8, 8.1, 9.1, 9.4, 9.6, 9.7, 12.3

Focus

_____ Section Focus Transparency 46 and Master

Teach

_____ Problem-Solving Lab, *SE* p. 372
_____ How It Works, *SE* p. 376
_____ Quick Demo, *TWE* p. 371
_____ Chemistry Journal, *TWE* p. 370
_____ *Spanish Resources*, 12.4 *TCR*

Assess

_____ Section Assessment, *SE* p. 373
_____ Check for Understanding, *TWE* p. 373
_____ Reteach, *TWE* p. 373
_____ *Study Guide for Content Mastery*, p. 72 *TCR*
_____ *Reviewing Chemistry: Preparing for the Georgia High School Graduation Test*, *TCR*

Enrichment/Application

_____ Extension, *TWE* p. 373
_____ *Supplemental Problems*, pp. 15–16 *TCR*
_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

_____ Chapter 12 Assessment, *SE* pp. 378–383
_____ Assessment, *TWE* pp. 372, 373, 375
_____ *Chapter Assessment*, pp. 67–72 *TCR*
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

_____ **Vocabulary PuzzleMaker Software,** Ch. 12
_____ **MindJogger Videoquizzes,** Ch. 12
_____ **TestCheck Software,** Ch. 12
_____ **Chemistry Interactive CD-ROM,** Ch. 12 quiz
_____ *Using the Internet in the Science Classroom*, *TCR*
_____ Chemistry Web site: **ga.science.glencoe.com**

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