

Measuring Matter



▶ pages 309–312
▶ 1 1/2 class session(s)

Section Objectives

- **Describe** how a mole is used in chemistry.
- **Relate** a mole to common counting units.
- **Convert** moles to number of representative particles and number of representative particles to moles.

National Science Content Standards

UCP.1; A.1; B.2; E.2; G.2, G.3

Georgia QCC

1, 1.2, 2.1, 9.4

Focus

_____ Section Focus Transparency 38 and Master

Teach

- _____ Discovery Lab, *SE* p. 309
_____ Quick Demo, *TWE* p. 310
_____ Chemistry Journal, *TWE* p. 310
_____ *Small-Scale Laboratory Manual*, pp. 29–32 *TCR*
_____ *Spanish Resources*, 11.1 *TCR*

Assess

- _____ Section Assessment, *SE* p. 312
_____ Check for Understanding, *TWE* p. 312
_____ Reteach, *TWE* p. 312
_____ *Study Guide for Content Mastery*, p. 61 *TCR*

Enrichment/Application

- _____ Extension, *TWE* p. 312
_____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

- _____ Assessment, *TWE* pp. 310, 312
_____ *Alternate Assessment in the Science Classroom*, *TCR*
_____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **Chemistry Interactive CD-ROM**, Section 11.1 Video
_____ **Vocabulary PuzzleMaker Software**, Ch. 11
_____ *Using the Internet in the Science Classroom*, *TCR*
_____ Chemistry Web site: ga.science.glencoe.com

Mass and the Mole

▶ pages 313–319
▶ 1 1/2 class session(s)

Section Objectives

- **Relate** the mass of an atom to the mass of a mole of atoms.
- **Calculate** the number of moles in a given mass of an element and the mass of a given number of moles of an element.
- **Calculate** the number of moles of an element when given the number of atoms of the element.
- **Calculate** the number of atoms of an element when given the number of moles of the element.

National Science Content Standards

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

Georgia QCC

5, 9.4

Focus

_____ Section Focus Transparency 39 and Master

Teach

- _____ Problem-Solving Lab, SE p. 314
- _____ Quick Demo, TWE p. 313
- _____ Chemistry Journal, TWE pp. 315, 316
- _____ Spanish Resources, 11.2 TCR

Assess

- _____ Section Assessment, SE p. 319
- _____ Check for Understanding, TWE p. 318
- _____ Reteach, TWE p. 319
- _____ Study Guide for Content Mastery, p. 62 TCR
- _____ Math Skills Transparency 13 and Master

Enrichment/Application

- _____ Extension, TWE p. 319
- _____ Cooperative Learning in the Science Classroom, TCR

Chapter Assessment

- _____ Assessment, TWE pp. 314, 317, 319
- _____ Alternate Assessment in the Science Classroom, TCR
- _____ Performance Assessment in the Science Classroom, TCR

Multimedia Options

- _____ Chemistry Interactive CD-ROM, Section 11.2 Video
- _____ Vocabulary PuzzleMaker Software, Ch. 11
- _____ Cosmic Chemistry Videodisc, Disc 3, Side 6; Disc 4, Side 8
- _____ Using the Internet in the Science Classroom, TCR
- _____ Chemistry Web site: ga.science.glencoe.com

Moles of Compounds

▶ pages 320–327
▶ 1 1/2 class session(s)

Section Objectives

- **Recognize** the mole relationships shown by a chemical formula.
- **Calculate** the molar mass of a compound.
- **Calculate** the number of moles of a compound from a given mass of the compound, and the mass of a compound from a given number of moles of the compound.
- **Determine** the number of atoms or ions in a mass of a compound.

National Science Content Standards

UCP.1; B.2; E.2

Georgia QCC

9.4

Focus

_____ Section Focus Transparency 40 and Master

Teach

- _____ Identifying Misconceptions, *TWE* p. 321
- _____ Chemistry Journal, *TWE* pp. 322, 323, 326
- _____ *Laboratory Manual*, pp. 81–84 *TCR*
- _____ Teaching Transparency 37 and Master
- _____ *Spanish Resources*, 11.3 *TCR*

Assess

- _____ Section Assessment, *SE* p. 327
- _____ Check for Understanding, *TWE* p. 326
- _____ Reteach, *TWE* p. 327
- _____ *Study Guide for Content Mastery*, p. 63 *TCR*
- _____ Math Skills Transparency 14 and Master

Enrichment/Application

- _____ Extension, *TWE* p. 327
- _____ *Challenge Problems*, p. 11 *TCR*
- _____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

- _____ Assessment, *TWE* pp. 322, 323, 324, 325, 327
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
- _____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **Chemistry Interactive CD-ROM**, Section 11.3 Experiment
- _____ **Vocabulary PuzzleMaker Software**, Ch. 11
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Chemistry Web site: ga.science.glencoe.com

Empirical and Molecular Formulas

▶ pages 328–337
▶ 2 class session(s)

Section Objectives

- **Explain** what is meant by the percent composition of a compound.
- **Determine** the empirical and molecular formulas for a compound from mass percent and actual mass data.

National Science Content Standards

UCP.1; A.1, A.2; B.2; E.2; G.1

Georgia QCC

1, 1.2, 3.1, 9.4, 9.5

Focus

_____ Section Focus Transparency 41 and Master

Teach

- _____ MiniLab, *SE* p. 329
- _____ Quick Demo, *TWE* p. 330
- _____ Chemistry Journal, *TWE* p. 330
- _____ *ChemLab and MiniLab Worksheets*, p. 41 *TCR*
- _____ *Laboratory Manual*, pp. 85–88 *TCR*
- _____ *Spanish Resources*, 11.4 *TCR*

Assess

- _____ Section Assessment, *SE* p. 337
- _____ Check for Understanding, *TWE* p. 336
- _____ Reteach, *TWE* p. 337
- _____ *Study Guide for Content Mastery*, pp. 64–65 *TCR*

Enrichment/Application

- _____ Extension, *TWE* p. 337
- _____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

- _____ Assessment, *TWE* pp. 329, 330, 333, 335, 337
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
- _____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **Chemistry Interactive CD-ROM**, Section 11.4 Demonstration
- _____ **Vocabulary PuzzleMaker Software**, Ch. 11
- _____ **Cosmic Chemistry Videodisc**, Disc 3, Side 6
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Chemistry Web site: ga.science.glencoe.com

The Formula for a Hydrate



▶ pages 338–341
▶ 2 1/2 class session(s)

Section Objectives

- **Explain** what a hydrate is and how its name reflects its composition.
- **Determine** the formula for a hydrate from laboratory data.

National Science Content Standards

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

Georgia QCC

1, 1.2, 2, 2.1, 3.1, 4, 8, 9.1, 9.4, 9.5, 9.6

Focus

_____ Section Focus Transparency 42 and Master

Teach

- _____ ChemLab 11, *SE* p. 342–343
- _____ Chemistry and Technology, *SE* p. 344
- _____ Quick Demo, *TWE* p. 339
- _____ Chemistry Journal, *TWE* p. 339
- _____ *ChemLab and MiniLab Worksheets*, pp. 42–44 *TCR*
- _____ *Spanish Resources*, 11.5 *TCR*

Assess

- _____ Section Assessment, *SE* p. 341
- _____ Check for Understanding, *TWE* p. 341
- _____ Reteach, *TWE* p. 341
- _____ *Study Guide for Content Mastery*, p. 66 *TCR*
- _____ *Reviewing Chemistry: Preparing for the Georgia High School Graduation Test*, *TCR*

Enrichment/Application

- _____ Extension, *TWE* p. 341
- _____ *Supplemental Problems*, pp. 13–14 *TCR*
- _____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

- _____ Chapter 11 Assessment, *SE* pp. 346–351
- _____ Assessment, *TWE* p. 341, 343
- _____ *Chapter Assessment*, pp. 61–66 *TCR*
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
- _____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **Vocabulary PuzzleMaker Software**, Ch. 11
- _____ **MindJogger Videoquizzes**, Ch. 11
- _____ **TestCheck Software**, Ch. 11
- _____ **Chemistry Interactive CD-ROM**, Ch. 11 quiz
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Chemistry Web site: ga.science.glencoe.com