

A Model for Reaction Rates

▶ pages 529–535
▶ 1 class session(s)

Section Objectives

- **Calculate** average rates of chemical reactions from experimental data.
- **Relate** rates of chemical reactions to collisions between reacting particles.

National Science Content Standards

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

Georgia QCC

1, 2.1, 3.1, 9.6, 12, 12.1, 12.3

Focus

_____ Section Focus Transparency 64 and Master

Teach

- _____ Discovery Lab, *SE* p. 529
- _____ Problem-Solving Lab, *SE* p. 533
- _____ Quick Demo, *TWE* pp. 530, 532
- _____ Chemistry Journal, *TWE* pp. 530, 531
- _____ *Spanish Resources*, 17.1 TCR

Assess

- _____ Section Assessment, *SE* p. 535
- _____ Check for Understanding, *TWE* p. 535
- _____ Reteach, *TWE* p. 535
- _____ *Study Guide for Content Mastery*, pp. 97–98 TCR

Enrichment/Application

- _____ Extension, *TWE* p. 535
- _____ *Challenge Problems*, p. 17 TCR
- _____ *Cooperative Learning in the Science Classroom*, TCR

Chapter Assessment

- _____ Assessment, *TWE* pp. 531, 532, 533, 534, 535
- _____ *Alternate Assessment in the Science Classroom*, TCR
- _____ *Performance Assessment in the Science Classroom*, TCR

Multimedia Options

- _____ **Chemistry Interactive CD-ROM**, Section 17.1 Experiment and Animation
- _____ **Vocabulary PuzzleMaker Software**, Ch. 17
- _____ **Cosmic Chemistry Videodisc**, Disc 1, Side 2; Disc 2, Side 3
- _____ *Using the Internet in the Science Classroom*, TCR
- _____ Chemistry Web site: ga.science.glencoe.com

Factors Affecting Reaction Rates

▶ pages 536–541
▶ 1 class session(s)

Section Objectives

- **Identify** factors that affect the rates of chemical reactions.
- **Explain** the role of a catalyst.

National Science Content Standards

UCP2, UCP3; A.1; B.2, B.3, B.4, B.6; F.1, F.4, F.6

Georgia QCC

1, 2.1, 3.1, 12, 12.2, 12.3

Focus

_____ Section Focus Transparency 65 and Master

Teach

- _____ MiniLab, *SE* p. 539
- _____ ChemLab 17, *SE* p. 550
- _____ Quick Demo, *TWE* p. 537
- _____ Identifying Misconceptions, *TWE* p. 538
- _____ Chemistry Journal, *TWE* p. 538
- _____ *ChemLab and MiniLab Worksheets*, pp. 65–68 *TCR*
- _____ *Laboratory Manual*, pp. 129–132 *TCR*
- _____ Teaching Transparency 50 and Master
- _____ *Spanish Resources*, 17.2 *TCR*

Assess

- _____ Section Assessment, *SE* p. 541
- _____ Check for Understanding, *TWE* p. 541
- _____ Reteach, *TWE* p. 541
- _____ *Study Guide for Content Mastery*, p. 99 *TCR*

Enrichment/Application

- _____ Extension, *TWE* p. 541
- _____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

- _____ Assessment, *TWE* pp. 537, 539, 541
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
- _____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **Chemistry Interactive CD-ROM**, Section 17.2 Demonstration
- _____ **Vocabulary PuzzleMaker Software**, Ch. 17
- _____ **Cosmic Chemistry Videodisc**, Disc 2, Side 3
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Chemistry Web site: ga.science.glencoe.com

Reaction Rate Laws

▶ pages 542–545
▶ 2 class session(s)

Section Objectives

- **Express** the relationship between reaction rate and concentration.
- **Determine** reaction orders using the method of initial rates.

National Science Content Standards

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

Georgia QCC

8.1

Focus

_____ Section Focus Transparency 66 and Master

Teach

- _____ ChemLab 17, *SE* pp. 550–551
- _____ Quick Demo, *TWE* p. 543
- _____ Chemistry Journal, *TWE* p. 544
- _____ *ChemLab and MiniLab Worksheets*, pp. 66–68 *TCR*
- _____ *Small-Scale Laboratory Manual*, pp. 53–56 *TCR*
- _____ Teaching Transparency 51 and Master
- _____ *Spanish Resources*, 17.3 *TCR*

Assess

- _____ Section Assessment, *SE* p. 545
- _____ Check for Understanding, *TWE* p. 545
- _____ Reteach, *TWE* p. 545
- _____ *Study Guide for Content Mastery*, p. 100 *TCR*
- _____ Math Skills Transparency 27 and Master

Enrichment/Application

- _____ Extension, *TWE* p. 545
- _____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

- _____ Assessment, *TWE* pp. 542, 545
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
- _____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **Vocabulary PuzzleMaker Software**, Ch. 17
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Chemistry Web site: ga.science.glencoe.com

Instantaneous Reaction Rates and Reaction Mechanisms

▶ pages 546–549
▶ 3 class session(s)

Section Objectives

- **Calculate** instantaneous rates of chemical reactions.
- **Understand** that many chemical reactions occur in steps.
- **Relate** the instantaneous rate of a complex reaction to its reaction mechanism.

National Science Content Standards

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

Georgia QCC

1, 2, 2.1, 3.1, 9.1, 9.6, 12, 12.1, 12.2, 12.3, 16.1, 16.3

Focus

_____ Section Focus Transparency 67 and Master

Teach

- _____ How It Works, *SE* p. 552
- _____ Quick Demo, *TWE* p. 548
- _____ Chemistry Journal, *TWE* p. 546
- _____ *Laboratory Manual*, pp. 133–136 *TCR*
- _____ Teaching Transparency 52 and Master
- _____ *Spanish Resources*, 17.4 *TCR*

Assess

- _____ Section Assessment, *SE* p. 549
- _____ Check for Understanding, *TWE* p. 549
- _____ Reteach, *TWE* p. 549
- _____ *Study Guide for Content Mastery*, pp. 101–102 *TCR*
- _____ *Reviewing Chemistry: Preparing for the Georgia High School Graduation Test*, *TCR*

Enrichment/Application

- _____ Extension, *TWE* pp. 547, 549
- _____ *Supplemental Problems*, pp. 25–26 *TCR*
- _____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

- _____ Chapter 17 Assessment, *SE* pp. 554–557
- _____ Assessment, *TWE* p. 549
- _____ *Chapter Assessment*, pp. 97–102 *TCR*
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
- _____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **Vocabulary PuzzleMaker Software**, Ch. 17
- _____ **MindJogger Videoquizzes**, Ch. 17
- _____ **TestCheck Software**, Ch. 17
- _____ **Chemistry Interactive CD-ROM**, Ch. 17 quiz
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Chemistry Web site: ga.science.glencoe.com