

# Acids and Bases: An Introduction

▶ pages 595–601  
▶ 1 class session(s)

## Section Objectives

- **Identify** the physical and chemical properties of acids and bases.
- **Classify** solutions as acidic, basic, or neutral.
- **Compare** the Arrhenius and Brønsted-Lowry models of acids and bases.

## National Science Content Standards

UCP.2, UCP.3, UCP.4; A.1; B.2, B.3, B.4

## Georgia QCC

1, 2.1, 3.1, 8, 9.1, 11, 11.1, 11.2, 11.3

## Focus

\_\_\_\_\_ Section Focus Transparency 71 and Master

## Teach

- \_\_\_\_\_ Discovery Lab, *SE* p. 595
- \_\_\_\_\_ Quick Demo, *TWE* pp. 596, 597
- \_\_\_\_\_ Chemistry Journal, *TWE* p. 596
- \_\_\_\_\_ Teaching Transparency 55 and Master
- \_\_\_\_\_ *Spanish Resources*, 19.1 *TCR*

## Assess

- \_\_\_\_\_ Section Assessment, *SE* p. 601
- \_\_\_\_\_ Check for Understanding, *TWE* p. 600
- \_\_\_\_\_ Reteach, *TWE* p. 600
- \_\_\_\_\_ *Study Guide for Content Mastery*, p. 109 *TCR*

## Enrichment/Application

- \_\_\_\_\_ Extension, *TWE* p. 601
- \_\_\_\_\_ *Cooperative Learning in the Science Classroom*, *TCR*

## Chapter Assessment

- \_\_\_\_\_ Assessment, *TWE* pp. 599, 601
- \_\_\_\_\_ *Alternate Assessment in the Science Classroom*, *TCR*
- \_\_\_\_\_ *Performance Assessment in the Science Classroom*, *TCR*

## Multimedia Options

- \_\_\_\_\_ **Chemistry Interactive CD-ROM**, Section 19.1 Video and Demonstration
- \_\_\_\_\_ **Vocabulary PuzzleMaker Software**, Ch. 19
- \_\_\_\_\_ **Cosmic Chemistry Videodisc**, Disc 3, Side 5; Disc 3, Side 6; Disc 4, Side 8
- \_\_\_\_\_ *Using the Internet in the Science Classroom*, *TCR*
- \_\_\_\_\_ Chemistry Web site: [ga.science.glencoe.com](http://ga.science.glencoe.com)

# Strengths of Acids and Bases

▶ pages 602–607  
▶ 1 1/2 class session(s)

## Section Objectives

- **Relate** the strength of an acid or base to its degree of ionization.
- **Compare** the strength of a weak acid with the strength of its conjugate base and the strength of a weak base with the strength of its conjugate acid.
- **Explain** the relationship between the strengths of acids and bases and the values of their ionization constants.

## National Science Content Standards

UCP.2, UCP.3, UCP.4; A.1; B.2, B.4

## Georgia QCC

1, 1.2, 3.1, 8, 9.1, 10, 11, 11.1, 11.2, 16.3

## Focus

\_\_\_\_\_ Section Focus Transparency 72 and Master

## Teach

- \_\_\_\_\_ MiniLab, SE p. 604
- \_\_\_\_\_ Quick Demo, TWE p. 605
- \_\_\_\_\_ Identifying Misconceptions, TWE p. 603
- \_\_\_\_\_ Chemistry Journal, TWE p. 605
- \_\_\_\_\_ ChemLab and MiniLab Worksheets, p. 73 TCR
- \_\_\_\_\_ Teaching Transparency 56 and Master
- \_\_\_\_\_ Spanish Resources, 19.2 TCR

## Assess

- \_\_\_\_\_ Section Assessment, SE p. 607
- \_\_\_\_\_ Check for Understanding, TWE p. 607
- \_\_\_\_\_ Reteach, TWE p. 607
- \_\_\_\_\_ Study Guide for Content Mastery, p. 110 TCR
- \_\_\_\_\_ Math Skills Transparency 30 and Master

## Enrichment/Application

- \_\_\_\_\_ Extension, TWE p. 607
- \_\_\_\_\_ Challenge Problems, p. 19 TCR
- \_\_\_\_\_ Cooperative Learning in the Science Classroom, TCR

## Chapter Assessment

- \_\_\_\_\_ Assessment, TWE pp. 604, 605, 607
- \_\_\_\_\_ Alternate Assessment in the Science Classroom, TCR
- \_\_\_\_\_ Performance Assessment in the Science Classroom, TCR

## Multimedia Options

- \_\_\_\_\_ Chemistry Interactive CD-ROM, Section 19.2 Demonstration
- \_\_\_\_\_ Vocabulary PuzzleMaker Software, Ch. 19
- \_\_\_\_\_ Cosmic Chemistry Videodisc, Disc 3, Side 5
- \_\_\_\_\_ Using the Internet in the Science Classroom, TCR
- \_\_\_\_\_ Chemistry Web site: [ga.science.glencoe.com](http://ga.science.glencoe.com)

# What is pH?

▶ pages 608–616  
▶ 1 1/2 class session(s)

## Section Objectives

- **Explain** the meaning of pH and pOH.
- **Relate** pH and pOH to the ion product constant for water.
- **Calculate** the pH and pOH of aqueous solutions.

## National Science Content Standards

UCP.2, UCP.3, UCP.4; A.1; B.2, B.4; E.2

## Georgia QCC

10, 11.1, 11.3

## Focus

\_\_\_\_\_ Section Focus Transparency 73 and Master

## Teach

- \_\_\_\_\_ Quick Demo, *TWE* p. 613
- \_\_\_\_\_ Chemistry Journal, *TWE* pp. 609, 611
- \_\_\_\_\_ *Forensics Laboratory Manual*, pp. 13–28 *TCR*
- \_\_\_\_\_ *Small-Scale Laboratory Manual*, pp. 65–68 *TCR*
- \_\_\_\_\_ Teaching Transparency 57 and Master
- \_\_\_\_\_ *Spanish Resources*, 19.3 *TCR*

## Assess

- \_\_\_\_\_ Section Assessment, *SE* p. 616
- \_\_\_\_\_ Check for Understanding, *TWE* p. 615
- \_\_\_\_\_ Reteach, *TWE* p. 615
- \_\_\_\_\_ *Study Guide for Content Mastery*, pp. 111–112 *TCR*
- \_\_\_\_\_ Math Skills Transparency 31 and Master

## Enrichment/Application

- \_\_\_\_\_ Extension, *TWE* pp. 611, 616
- \_\_\_\_\_ *Cooperative Learning in the Science Classroom*, *TCR*

## Chapter Assessment

- \_\_\_\_\_ Assessment, *TWE* pp. 612, 616
- \_\_\_\_\_ *Alternate Assessment in the Science Classroom*, *TCR*
- \_\_\_\_\_ *Performance Assessment in the Science Classroom*, *TCR*

## Multimedia Options

- \_\_\_\_\_ **Vocabulary PuzzleMaker Software**, Ch. 19
- \_\_\_\_\_ **Cosmic Chemistry Videodisc**, Disc 3, Side 5; Disc 3, Side 6; Disc 4, Side 8
- \_\_\_\_\_ *Using the Internet in the Science Classroom*, *TCR*
- \_\_\_\_\_ Chemistry Web site: [ga.science.glencoe.com](http://ga.science.glencoe.com)

# Neutralization

▶ pages 617–625  
▶ 3 class session(s)

## Section Objectives

- **Write** chemical equations for neutralization reactions.
- **Explain** how neutralization reactions are used in acid-base titrations.
- **Compare** the properties of buffered and unbuffered solutions.

## National Science Content Standards

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

## Georgia QCC

1, 1.2, 2, 2.1, 3.1, 8, 8.3, 9.1, 9.6, 10, 11, 11.1, 11.2, 11.3, 11.4, 11.5, 16.3

## Focus

\_\_\_\_\_ Section Focus Transparency 74 and Master

## Teach

- |   |  |
|---|--|
| _____ Problem-Solving Lab, SE p. 624                | _____ Laboratory Manual, pp. 145–152 TCR           |
| _____ ChemLab 19, SE pp. 626–627                    | _____ Small-Scale Laboratory Manual, pp. 69–72 TCR |
| _____ How It Works, SE p. 628                       | _____ CBL Laboratory Manual, pp. 33–36 TCR         |
| _____ Quick Demo, TWE p. 622                        | _____ Teaching Transparency 58 and Master          |
| _____ Chemistry Journal, TWE pp. 617, 618, 620      | _____ Spanish Resources, 19.4 TCR                  |
| _____ ChemLab and MiniLab Worksheets, pp. 74–76 TCR |  |

## Assess

- |  |   |
|--|---|
| _____ Section Assessment, SE p. 625                    | _____ Reviewing Chemistry: Preparing for the Georgia High School Graduation Test, TCR |
| _____ Check for Understanding, TWE p. 625              |   |
| _____ Reteach, TWE p. 625                              |   |
| _____ Study Guide for Content Mastery, pp. 113–114 TCR |   |

## Enrichment/Application

- \_\_\_\_\_ Extension, TWE pp. 620, 623
- \_\_\_\_\_ Supplemental Problems, p. 29 TCR
- \_\_\_\_\_ Cooperative Learning in the Science Classroom, TCR

## Chapter Assessment

- \_\_\_\_\_ Chapter 19 Assessment, SE pp. 630–633
- \_\_\_\_\_ Assessment, TWE pp. 618, 619, 623, 624, 625
- \_\_\_\_\_ Chapter Assessment, pp. 109–114 TCR
- \_\_\_\_\_ Alternate Assessment in the Science Classroom, TCR
- \_\_\_\_\_ Performance Assessment in the Science Classroom, TCR

## Multimedia Options

- \_\_\_\_\_ Chemistry Interactive CD-ROM, Section 19.4 Demonstration, Animation, Video, and Experiment
- \_\_\_\_\_ Vocabulary PuzzleMaker Software, Ch. 19
- \_\_\_\_\_ MindJogger Videoquizzes, Ch. 19
- \_\_\_\_\_ TestCheck Software, Ch. 19
- \_\_\_\_\_ Chemistry Interactive CD-ROM, Chapter 19 quiz
- \_\_\_\_\_ Using the Internet in the Science Classroom, TCR
- \_\_\_\_\_ Chemistry Web site: [ga.science.glencoe.com](http://ga.science.glencoe.com)