

## Matter—Properties and Changes

### Chapter Pacing Guide

Please note that this pace is based on completing selected sections of the text in 90 classes, approximately 90 minutes each. Refer to the Course Planning Guide on page v of this booklet for a complete list of time allotments assigned to each section. Less time can be allocated for each chapter if you plan to teach all 26 chapters.

Period	Content
0.5	3.1 Properties of Matter
0.5	3.2 Changes in Matter
1	3.3 Mixtures of Matter
0.5	3.4 Elements and Compounds
0.5	Review and Assessment

# Properties of Matter *pages 55–60*

**Key:** SE = Student Edition,  
TWE = Teacher Wraparound Edition,  
TCR = Teacher Classroom Resources

**National Science Content Standards:** UCP.1, UCP.2, UCP.3; A.1; B.2, B.3, B.4, B.5, B.6; G.1

**Texas TEKS:** 1(A), 2(A), 2(D), 3(D), 4(A), 4(B), 4(C), 5(A)

## Objectives

- **Identify** the characteristics of a substance.
- **Distinguish** between physical and chemical properties.
- **Differentiate** among the physical states of matter.

## Lesson Resources

- \_\_\_\_\_ Section Focus Transparency 9 and Master
- \_\_\_\_\_ Teaching Transparency 7 and Master
- \_\_\_\_\_ *Study Guide for Content Mastery*, pp. 13–14 TCR

\_\_\_\_\_ **Guided Reading Audio Program**, Section 3.1

\_\_\_\_\_ *Using the Internet in the Science Classroom*, TCR

\_\_\_\_\_ Chemistry Web site: [science.glencoe.com](http://science.glencoe.com)

## Multimedia Resources

- \_\_\_\_\_ **Chemistry Interactive CD-ROM**, Section 3.1 Exploration and Video
- \_\_\_\_\_ **MindJogger Videoquizzes**, Ch. 3

## Optional Resources

- \_\_\_\_\_ *Laboratory Manual*, pp. 17–24 TCR
- \_\_\_\_\_ *Solving Problems: A Chemistry Handbook*, Section 3.1 TCR
- \_\_\_\_\_ *Spanish Resources 3.1 TCR*

## Lesson Plan

Activity	Resources	Suggested Time
<b>Classroom Management</b> <ul style="list-style-type: none"> <li>• Display the Section Focus Transparency and have students answer the questions.</li> <li>• Distribute the corrected Chapter 2 tests.</li> </ul>	Section Focus Transparency 9 and Master	5 minutes
<b>Core Lesson</b> <ul style="list-style-type: none"> <li>• Introduce Chapter 3 with Using the Photo.</li> <li>• Teach the main concepts of Section 3.1.</li> </ul>	TWE, p. 54 TWE, pp. 55–60	20 minutes
<b>In-Class Check</b> <ul style="list-style-type: none"> <li>• Reinforce Section 3.1 concepts using the Teaching Transparency.</li> <li>• Complete the Check for Understanding strategy.</li> </ul>	Teaching Transparency 7 and Master TWE, p. 58	15 minutes
<b>Homework</b> <ul style="list-style-type: none"> <li>• Have students complete the Knowledge Assessment.</li> <li>• Have students complete Section 3.1 Assessment.</li> <li>• Assign relevant questions from Chapter 3 Assessment.</li> </ul>	TWE, p. 59 SE, p. 60 SE, pp. 82–84	5 minutes

[total = 45 minutes]

# Changes in Matter

 pages 61–65

**Key:** SE = Student Edition,  
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**National Science Content Standards:** UCP.1, UCP.2, UCP.3;  
B.2, B.3, B.5, B.6

**Texas TEKS:** 2(C), 4(B), 5(A), 5(C)

## Objectives

- **Define** physical change and list several common physical changes.
- **Define** chemical change and list several indications that a chemical change has taken place.
- **Apply** the law of conservation of mass to chemical reactions.

## Lesson Resources

- \_\_\_\_\_ Section Focus Transparency 10 and Master
- \_\_\_\_\_ Math Skills Transparency 2 and Master
- \_\_\_\_\_ Teaching Transparency 8 and Master
- \_\_\_\_\_ *ChemLab and MiniLab Worksheets*, pp. 10–12  
TCR
- \_\_\_\_\_ *Study Guide for Content Mastery*, p. 15 TCR

## Optional Resources

- \_\_\_\_\_ *Challenge Problems*, p. 3 TCR
- \_\_\_\_\_ *Solving Problems: A Chemistry Handbook*,  
Section 3.2 TCR
- \_\_\_\_\_ *Spanish Resources 3.2 TCR*

## Multimedia Resources

- \_\_\_\_\_ *MindJogger Videoquizzes*, Ch. 3
- \_\_\_\_\_ **Guided Reading Audio Program**, Section 3.2
- \_\_\_\_\_ *Using the Internet in the Science Classroom*, TCR
- \_\_\_\_\_ Chemistry Web site: [science.glencoe.com](http://science.glencoe.com)

## Lesson Plan

Activity	Resources	Suggested Time
<b>Classroom Management</b> <ul style="list-style-type: none"> <li>• Display the Section Focus Transparency and have students answer the questions.</li> <li>• Have students check homework answers.</li> </ul>	Section Focus Transparency 10 and Master TWE, pp. 59, 60, 82–85	5 minutes
<b>Discussion</b> <ul style="list-style-type: none"> <li>• Answer any questions about homework.</li> </ul>	TWE, pp. 59, 60, 82–85	5 minutes
<b>Core Lesson</b> <ul style="list-style-type: none"> <li>• Teach the main concepts of Section 3.2.</li> <li>• Have students read the ChemLab and begin preparations. (Note: this lab will take one period to complete. Time adjustments may be necessary in subsequent lessons.)</li> </ul>	TWE, pp. 61–65 SE, pp. 78–79	25 minutes
<b>In-Class Check</b> <ul style="list-style-type: none"> <li>• Complete the Reteach strategy.</li> </ul>	TWE, p. 65	5 minutes
<b>Homework</b> <ul style="list-style-type: none"> <li>• Have students complete Section 3.2 Assessment.</li> <li>• Assign relevant questions from Chapter 3 Assessment.</li> </ul>	SE, p. 65 SE, pp. 82–85	5 minutes

[total = 45 minutes]

# Mixtures of Matter pages 66–69

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**National Science Content Standards:** UCP.1, UCP.2, UCP.3; A.1; B.2; E.1

**Texas TEKS:** 1(A), 4(C)

## Objectives

- **Contrast** mixtures and substances.
- **Classify** mixtures as homogeneous or heterogeneous.
- **List** and **describe** several techniques used to separate mixtures.

## Lesson Resources

- \_\_\_\_\_ Section Focus Transparency 11 and Master
- \_\_\_\_\_ *ChemLab and MiniLab Worksheets*, p. 9 TCR
- \_\_\_\_\_ *Study Guide for Content Mastery*, p. 16 TCR

- \_\_\_\_\_ *Using the Internet in the Science Classroom*, TCR
- \_\_\_\_\_ Chemistry Web site: [science.glencoe.com](http://science.glencoe.com)

## Multimedia Resources

- \_\_\_\_\_ **Chemistry Interactive CD-ROM**, Section 3.3 Experiment and Exploration
- \_\_\_\_\_ **MindJogger Videoquizzes**, Ch. 3
- \_\_\_\_\_ **Guided Reading Audio Program**, Section 3.3

## Optional Resources

- \_\_\_\_\_ *Forensics Laboratory Manual*, pp. 1–12 TCR
- \_\_\_\_\_ *Small-Scale Laboratory Manual*, pp. 9–12 TCR
- \_\_\_\_\_ *Solving Problems: A Chemistry Handbook*, Section 3.3 TCR
- \_\_\_\_\_ *Spanish Resources 3.3 TCR*

## Lesson Plan

Activity	Resources	Suggested Time
<b>Classroom Management</b> <ul style="list-style-type: none"> <li>• Display the Section Focus Transparency and have students answer the questions.</li> <li>• Have students check homework answers.</li> </ul>	Section Focus Transparency 11 and Master <i>TWE</i> , pp. 65, 82–85	5 minutes
<b>Discussion</b> <ul style="list-style-type: none"> <li>• Answer any questions about homework.</li> </ul>	<i>TWE</i> , pp. 65, 82–85	5 minutes
<b>Core Lesson</b> <ul style="list-style-type: none"> <li>• Introduce Section 3.3 with the MiniLab.</li> <li>• Teach the main concepts of Section 3.3.</li> </ul>	<i>SE</i> , p. 68 <i>TWE</i> , pp. 66–69	60 minutes
<b>In-Class Check</b> <ul style="list-style-type: none"> <li>• Reinforce Section 3.3 concepts using the Portfolio Assessment.</li> <li>• Complete the Check for Understanding and Reteach strategies.</li> </ul>	<i>TWE</i> , p. 66 <i>TWE</i> , p. 69	15 minutes
<b>Homework</b> <ul style="list-style-type: none"> <li>• Have students complete Section 3.3 Assessment.</li> <li>• Assign relevant questions from Chapter 3 Assessment.</li> </ul>	<i>SE</i> , p. 69 <i>SE</i> , pp. 82–85	5 minutes

[total = 90 minutes]

# Elements and Compounds *pages 70–77*

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**National Science Content Standards:** UCP.1, UCP.2, UCP.3; A.1, B.1, B.2, B.3, B.6; E.2; F.4, F.6; G.1, G.2, G.3

**Texas TEKS:** 1(A), 2(A), 2(B), 2(C), 2(D), 2(E), 3(B), 3(C), 3(E), 4(A), 4(B), 4(C), 4(D), 5(A), 6(C), 11(A)

## Objectives

- **Distinguish** between elements and compounds.
- **Describe** the organization of elements on the periodic table.
- **Explain** how all compounds obey the laws of definite and multiple proportions.

## Lesson Resources

- \_\_\_\_\_ Section Focus Transparency 12 and Master
- \_\_\_\_\_ Math Skills Transparency 3 and Master
- \_\_\_\_\_ Teaching Transparencies 9–10 and Masters
- \_\_\_\_\_ *ChemLab and MiniLab Worksheets*, pp. 10–12 TCR
- \_\_\_\_\_ *Study Guide for Content Mastery*, pp. 17–18 TCR

- \_\_\_\_\_ **Cosmic Chemistry Videodisc**, Disc 3, Side 6; Disc 4, Side 8; Disc 2, Side 3
- \_\_\_\_\_ *Using the Internet in the Science Classroom*, TCR
- \_\_\_\_\_ Chemistry Web site: [science.glencoe.com](http://science.glencoe.com)

## Multimedia Resources

- \_\_\_\_\_ **MindJogger Videoquizzes**, Ch. 3
- \_\_\_\_\_ **Guided Reading Audio Program**, Section 3.4

## Optional Resources

- \_\_\_\_\_ *Solving Problems: A Chemistry Handbook*, Section 3.4 TCR
- \_\_\_\_\_ *Spanish Resources 3.4 TCR*
- \_\_\_\_\_ *Supplemental Problems*, pp. 3–4 TCR

## Lesson Plan

Activity	Resources	Suggested Time
<b>Classroom Management</b> <ul style="list-style-type: none"> <li>• Display the Section Focus Transparency and have students answer the questions.</li> <li>• Have students check homework answers.</li> </ul>	Section Focus Transparency 12 and Master TWE, pp. 69, 82–85	5 minutes
<b>Discussion</b> <ul style="list-style-type: none"> <li>• Answer any questions about homework.</li> </ul>	TWE, pp. 69, 82–85	5 minutes
<b>Core Lesson</b> <ul style="list-style-type: none"> <li>• Teach the main concepts of Section 3.4.</li> </ul>	TWE, pp. 70–77	15 minutes
<b>In-Class Check</b> <ul style="list-style-type: none"> <li>• Reinforce Section 3.4 concepts using the Math Skills Transparency.</li> <li>• Complete the Check for Understanding strategy.</li> <li>• Answer questions on Chapter 3 in preparation for the test.</li> </ul>	Math Skills Transparency 4 and Master TWE, p. 76 TWE, pp. 54–85	15 minutes
<b>Homework</b> <ul style="list-style-type: none"> <li>• Have students complete Section 3.4 Assessment.</li> <li>• Assign relevant questions from Chapter 3 Assessment.</li> <li>• Assign supplemental problems to prepare students for the test.</li> </ul>	SE, p. 77 SE, pp. 82–85 Supplemental Problems, p. 3 TCR	5 minutes

[total = 45 minutes]

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## Assessment Resources

- \_\_\_\_\_ Chapter Assessment, Ch. 3 TCR
- \_\_\_\_\_ Performance Assessment in the Science Classroom, TCR
- \_\_\_\_\_ Alternate Assessment in the Science Classroom, TCR

## Multimedia Resources

- \_\_\_\_\_ MindJogger Videoquizzes, Ch. 3
- \_\_\_\_\_ Computer Test Bank, Ch. 3
- \_\_\_\_\_ Chemistry Interactive CD-ROM, Ch. 3 quiz
- \_\_\_\_\_ Vocabulary PuzzleMaker Software, Ch. 3

Activity	Resources	Suggested Time
<b>Classroom Management</b> <ul style="list-style-type: none"> <li>• Have students check homework answers.</li> </ul>	TWE, pp. 77, 82–85 Supplemental Problems, p. 3 TCR	5 minutes
<b>Reviewing the Chapter</b> <ul style="list-style-type: none"> <li>• Answer any questions about homework.</li> <li>• Answer any final questions about Chapter 3.</li> </ul>	Supplemental Problems, p. 3 TCR TWE, pp. 54–85	5 minutes
<b>Assessment</b> <ul style="list-style-type: none"> <li>• Distribute the test and allow students to work quietly.</li> </ul>	Chapter Assessment, pp. 13–18 TCR	30–35 minutes
<b>Closing</b> <ul style="list-style-type: none"> <li>• As students complete the test, have them read the Chapter 4 Opener.</li> <li>• If students have time, let them explore the Chemistry Online for Chapter 4.</li> </ul>	SE, p. 86  science.glencoe.com	0–5 minutes

[total = 45 minutes]