

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 xvii 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

Georgia QCC: 1, 1.2, 2, 2.1, 3.1, 9.6, 15, 15.1, 15.2, 15.6

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

Georgia QCC: 2, 9.1, 9.6, 14, 15, 15.2

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: ga.science.glencoe.com

Lesson Plan

Activity	Resources	Suggested Time
Classroom Management <ul style="list-style-type: none"> • Display the Section Focus Transparency and have students answer the questions. • Have students check homework answers. 	Section Focus Transparency 10 and Master TWE, pp. 59, 60, 82–85	5 minutes
Discussion <ul style="list-style-type: none"> • Answer any questions about homework. 	TWE, pp. 59, 60, 82–85	5 minutes
Core Lesson <ul style="list-style-type: none"> • Teach the main concepts of Section 3.2. • 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.) 	TWE, pp. 61–65 SE, pp. 78–79	25 minutes
In-Class Check <ul style="list-style-type: none"> • Complete the Reteach strategy. 	TWE, p. 65	5 minutes
Homework <ul style="list-style-type: none"> • Have students complete Section 3.2 Assessment. • Assign relevant questions from Chapter 3 Assessment. 	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

Georgia QCC: 1, 1.2, 3.1, 9.3, 16

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

Multimedia Resources

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

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

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

Georgia QCC: 1, 1.2, 2, 2.1, 3.1, 4, 5.2, 9.1, 9.3, 9.6, 14, 15, 16

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: ga.science.glencoe.com

Optional Resources

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

Multimedia Resources

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

Lesson Plan

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

Multimedia Resources

- _____ MindJogger Videoquizzes, Ch. 3
- _____ TestCheck Software, Ch. 3
- _____ Chemistry Interactive CD-ROM, Ch. 3 quiz
- _____ Vocabulary PuzzleMaker Software, Ch. 3

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

[total = 45 minutes]