

## The Periodic Table and Periodic Law



### 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	6.1 Development of the Modern Periodic Table
1	6.2 Classification of the Elements
1	6.3 Periodic Trends
0.5	Review and Assessment

# Development of the Modern Periodic Table pages 151–158

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

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

**Georgia QCC:** 1, 1.2, 2, 2.1, 3.1, 5.1, 5.2

## Objectives

- Trace the development and identify key features of the periodic table.

## Lesson Resources

- Section Focus Transparency 20 and Master
- Teaching Transparency 18 and Master
- Study Guide for Content Mastery, pp. 31–32 TCR

## Optional Resources

- Solving Problems: A Chemistry Handbook, Section 6.1 TCR
- Spanish Resources 6.1 TCR

## Multimedia Resources

- Chemistry Interactive CD-ROM, Section 6.1 Exploration, Video, and Demonstration
- MindJogger Videoquizzes, Ch. 6
- Guided Reading Audio Program, Section 6.1
- 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](http://ga.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>Distribute the corrected Chapter 5 tests.</li> </ul>	Section Focus Transparency 20 and Master	5 minutes
<b>Core Lesson</b> <ul style="list-style-type: none"> <li>Introduce Section 6.1 with the Concept Development topic.</li> <li>Teach the main concepts of Section 6.1.</li> <li>Have students read the ChemLab and begin preparations. (Note: this lab will take 45 minutes to complete. Time adjustments may be necessary in subsequent lessons.)</li> </ul>	TWE, p. 151 TWE, pp. 151–158 SE, pp. 170–171	25 minutes
<b>In-Class Check</b> <ul style="list-style-type: none"> <li>Complete the Reteach strategy.</li> </ul>	TWE, p. 158	10 minutes
<b>Homework</b> <ul style="list-style-type: none"> <li>Have students complete Section 6.1 Assessment.</li> <li>Assign the Check for Understanding writing activity.</li> <li>Assign relevant questions from Chapter 6 Assessment.</li> </ul>	SE, p. 158 TWE, p. 158 SE, pp. 174–177	5 minutes

[total = 45 minutes]

# Classification of the Elements pages 159–162

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

**National Science Content Standards:** UCP.1, UCP.2, UCP.5; A.1; B.1, B.2

**Georgia QCC:** 5.2, 5.3, 6, 6.1, 6.3

## Objectives

- **Explain** why elements in the same group have similar properties.
- **Identify** the four blocks of the periodic table based on electron configuration.

## Lesson Resources

- \_\_\_\_\_ Section Focus Transparency 21 and Master
- \_\_\_\_\_ Math Skills Transparency 6 and Master
- \_\_\_\_\_ Teaching Transparency 19 and Master
- \_\_\_\_\_ *ChemLab and MiniLab Worksheets*, pp. 22–24  
TCR
- \_\_\_\_\_ *Study Guide for Content Mastery*, pp. 33–34 TCR

- \_\_\_\_\_ **Guided Reading Audio Program**, Section 6.2
- \_\_\_\_\_ *Using the Internet in the Science Classroom*, TCR
- \_\_\_\_\_ Chemistry Web site: [ga.science.glencoe.com](http://ga.science.glencoe.com)

## Optional Resources

- \_\_\_\_\_ *Challenge Problems*, p. 6 TCR
- \_\_\_\_\_ *Solving Problems: A Chemistry Handbook*,  
Section 6.2 TCR
- \_\_\_\_\_ *Spanish Resources 6.2* TCR

## Multimedia Resources

- \_\_\_\_\_ **Chemistry Interactive CD-ROM**, Section 6.2  
Experiment
- \_\_\_\_\_ **MindJogger Videoquizzes**, Ch. 6

## 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 21 and Master <i>TWE</i> , pp. 158, 174–177	5 minutes
<b>Discussion</b> <ul style="list-style-type: none"> <li>• Answer any questions about homework.</li> </ul>	<i>TWE</i> , pp. 158, 174–177	5 minutes
<b>Core Lesson</b> <ul style="list-style-type: none"> <li>• Teach the main concepts of Section 6.2.</li> <li>• Do the Quick Demo.</li> <li>• Use the Teaching and Math Skills Transparencies.</li> </ul>	<i>TWE</i> , pp. 159–162 <i>TWE</i> , p. 161 Teaching Transparency 19 and Math Skills Transparency 6 and Masters	40 minutes
<b>In-Class Check</b> <ul style="list-style-type: none"> <li>• Reinforce Section 6.2 concepts using the <i>Study Guide for Content Mastery</i>.</li> <li>• Complete the Check for Understanding and Reteach strategies.</li> </ul>	<i>Study Guide for Content Mastery</i> , pp. 33–34 TCR <i>TWE</i> , pp. 161–162	35 minutes
<b>Homework</b> <ul style="list-style-type: none"> <li>• Have students complete the Section 6.2 Assessment.</li> <li>• Assign relevant questions from Chapter 6 Assessment.</li> </ul>	<i>SE</i> , p. 162 <i>SE</i> , pp. 174–177	5 minutes

[total = 90 minutes]

**Periodic Trends** pages 163–169

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

**Georgia QCC:** 1, 1.2, 2, 2.1, 3.1, 5.2, 5.3, 6, 6.1

**Objectives**

- Compare period and group trends of several properties.
- Relate period and group trends in atomic radii to electron configuration.

**Lesson Resources**

- \_\_\_\_\_ Section Focus Transparency 22 and Master
- \_\_\_\_\_ Teaching Transparencies 20–21 and Masters
- \_\_\_\_\_ *ChemLab and MiniLab Worksheets*, pp. 21–24 TCR
- \_\_\_\_\_ *Study Guide for Content Mastery*, pp. 35–36 TCR

- \_\_\_\_\_ **Guided Reading Audio Program**, Section 6.3
- \_\_\_\_\_ *Using the Internet in the Science Classroom*, TCR
- \_\_\_\_\_ Chemistry Web site: [ga.science.glencoe.com](http://ga.science.glencoe.com)

**Multimedia Resources**

- \_\_\_\_\_ **Chemistry Interactive CD-ROM**, Section 6.3 Animation
- \_\_\_\_\_ **MindJogger Videoquizzes**, Ch. 6

**Optional Resources**

- \_\_\_\_\_ *Laboratory Manual*, pp. 41–48 TCR
- \_\_\_\_\_ *Solving Problems: A Chemistry Handbook*, Section 6.3 TCR
- \_\_\_\_\_ *Spanish Resources 6.3* TCR
- \_\_\_\_\_ *Supplemental Problems*, p. 9 TCR

**Lesson Plan**

Activity	Resources	Suggested Time
<p><b>Classroom Management</b></p> <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>	<p>Section Focus Transparency 22 and Master TWE, pp. 162, 174–177</p>	5 minutes
<p><b>Discussion</b></p> <ul style="list-style-type: none"> <li>• Answer any questions about homework.</li> </ul>	<p>TWE, pp. 162, 174–177</p>	0–5 minutes
<p><b>Core Lesson</b></p> <ul style="list-style-type: none"> <li>• Teach the main concepts of Section 6.3.</li> <li>• Have students do the MiniLab in small groups, and discuss their results.</li> <li>• Perform the Demonstration, then ask the Knowledge Assessment question.</li> </ul>	<p>TWE, pp. 163–169 SE, p. 164 TWE, pp. 166–167</p>	55–60 minutes
<p><b>In-Class Check</b></p> <ul style="list-style-type: none"> <li>• Complete the Check for Understanding and Reteach strategies.</li> <li>• Answer questions on Chapter 6 to prepare students for the test.</li> </ul>	<p>TWE, p. 169 TWE, pp. 150–177</p>	20 minutes
<p><b>Homework</b></p> <ul style="list-style-type: none"> <li>• Have students complete Section 6.3 Assessment.</li> <li>• Assign relevant questions from Chapter 6 Assessment.</li> <li>• Assign supplemental problems to prepare students for the test.</li> </ul>	<p>SE, p. 169 SE, pp. 174–177 Supplemental Problems, p. 9 TCR</p>	5 minutes

[total = 90 minutes]

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## Assessment Resources

- \_\_\_\_\_ Chapter Assessment, Ch. 6 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. 6
- \_\_\_\_\_ TestCheck Software, Ch. 6
- \_\_\_\_\_ Chemistry Interactive CD-ROM, Ch. 6 quiz
- \_\_\_\_\_ Vocabulary PuzzleMaker Software, Ch. 6

Activity	Resources	Suggested Time
<b>Classroom Management</b> • Have students check homework answers.	TWE, pp. 169, 174–177 Supplemental Problems, p. 9 TCR	5 minutes
<b>Reviewing the Chapter</b> • Answer any questions about homework. • Answer any final questions about Chapter 6.	Supplemental Problems, p. 9 TCR TWE, pp. 150–177	5 minutes
<b>Assessment</b> • Distribute the test and allow students to work quietly.	Chapter Assessment, pp. 31–36 TCR	30–35 minutes
<b>Closing</b> • As students complete the test, have them read the Chapter 7 Opener. • If students have time, let them explore the Chemistry Online for Chapter 7.	SE, p. 178 <a href="http://ga.science.glencoe.com">ga.science.glencoe.com</a>	0–5 minutes

[total = 45 minutes]