



# 9.2

# Lesson Plans



**KEY**  
*SE* = Student Edition, *TWE* = Teacher Wraparound Edition, *TCR* = Teacher Classroom Resources, *STVS* = Science and Technology Videodisc Series, *PCA* = Physics for the Computer Age

## The Conservation of Momentum

### Section Objectives

- \_\_\_\_\_ **Relate** Newton's third law of motion to conservation of momentum in collisions and explosions.
- \_\_\_\_\_ **Recognize** the conditions under which the momentum of a system is conserved.
- \_\_\_\_\_ **Apply** conservation of momentum to explain the propulsion of rockets.
- \_\_\_\_\_ **Solve** conservation of momentum problems in two dimensions by using vector analysis.

**National Science Content Standards** UCP.1, UCP.2, UCP.3, A.1, A.2, B.2, B.4, E.1, E.2  
**Georgia QCC** 1, 1.1, 1.2, 1.3, 1.4, 6, 6.1, 24, 24.1, 24.2, 24.3

### Schedule

Block schedule: 2 1/2 sessions  
 Single-period schedule: 5 sessions

### Focus

- \_\_\_\_\_ Quick Demo, *TWE* p. 207

### Teach

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| <ul style="list-style-type: none"> <li> _____ Pocket Lab, <i>SE</i> p. 208</li> <li>_____ Using a Calculator, <i>SE</i> p. 210</li> <li> _____ Physics Lab, <i>SE</i> p. 213</li> <li>_____ Help Wanted, <i>SE</i> p. 214</li> <li> _____ Quick Demo, <i>TWE</i> p. 208</li> <li> _____ Demonstration 9-2, <i>TWE</i> pp. 208–209</li> <li>_____ Connections to Biology, <i>TWE</i> p. 214</li> </ul> | <ul style="list-style-type: none"> <li>_____ Physics Journal, <i>TWE</i> p. 215</li> <li> _____ Transparency 13 Master and Worksheet, pp. 27–28, <i>TCR</i></li> <li> _____ Laboratory Manual, Lab 9.1, <i>TCR</i></li> <li> _____ Physics Lab and Pocket Lab Worksheets, pp. 43–44, 46, <i>TCR</i></li> <li>_____ Spanish Resources, <i>TCR</i></li> </ul> |
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### Assess/Reteach

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| <ul style="list-style-type: none"> <li> _____ Section Review, <i>SE</i> p. 216</li> <li>_____ Checking for Understanding, <i>TWE</i> p. 216</li> <li> _____ Reteaching, <i>TWE</i> p. 216</li> <li> _____ Study Guide, pp. 53–54, <i>TCR</i></li> </ul> | <ul style="list-style-type: none"> <li> _____ Reteaching, pp. 12–13, <i>TCR</i></li> <li>_____ Supplemental Problems, <i>TCR</i></li> <li> _____ Reviewing Physics: Mastering the Georgia QCC, <i>TCR</i></li> </ul> |
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### Enrichment/Application

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| <ul style="list-style-type: none"> <li>_____ Cultural Diversity, <i>TWE</i> p. 211</li> <li> _____ Extension, <i>TWE</i> p. 216</li> <li>_____ Enrichment, pp. 17–18, <i>TCR</i></li> </ul> | <ul style="list-style-type: none"> <li>_____ Critical Thinking, pp. 13–14, <i>TCR</i></li> <li> _____ Tech Prep Applications, pp. 13–16, <i>TCR</i></li> </ul> |
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### Close

- \_\_\_\_\_ Closing Strategy, *TWE* p. 216

### Chapter Assessment

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| <ul style="list-style-type: none"> <li> _____ Chapter Review, <i>SE</i> pp. 217–221</li> <li>_____ Assessment, <i>TWE</i> p. 212</li> <li> _____ Chapter Assessment, 39–44, <i>TCR</i></li> </ul> | <ul style="list-style-type: none"> <li>_____ Alternate Assessment in the Science Classroom</li> <li>_____ Performance Assessment in the Science Classroom</li> </ul> |
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### Multimedia Options

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| <ul style="list-style-type: none"> <li> _____ <b>CD-ROM:</b> Momentum, <i>PCA</i></li> <li> _____ <b>Videotape:</b> MindJogger Videoquizzes</li> </ul> | <ul style="list-style-type: none"> <li> _____ <b>Videotape:</b> The Mechanical Universe, Quad 2</li> <li>_____ <b>TestCheck Software</b></li> </ul> |
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