



# 8.2

# 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

## Using the Law of Universal Gravitation

### Section Objectives

- \_\_\_\_\_ Solve problems involving orbital speed and period.
- \_\_\_\_\_ Relate weightlessness to objects in free fall.
- \_\_\_\_\_ Describe gravitational fields.
- \_\_\_\_\_ Distinguish between inertial mass and gravitational mass.
- \_\_\_\_\_ Contrast Newton's and Einstein's views about gravitation.

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

**Georgia QCC** 1, 2.2, 2.4, 3.2, 3.3, 24, 24.3, 24.5, 24.6, 24.7, 24.9, 24.10

### Schedule

Block schedule: 2 1/2 sessions  
 Single-period schedule: 4 sessions

### Focus

- Quick Demo, TWE p. 185

### Teach

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| <ul style="list-style-type: none"> <li>_____ Help Wanted, SE p. 186</li> <li> Pocket Labs, SE pp. 188, 189</li> <li>_____ Literature Connection, SE p. 190</li> <li> Quick Demos, TWE pp. 186, 190</li> <li>_____ Physics Journal, TWE p. 188</li> <li>_____ Connections to Biology, TWE p. 188</li> <li>_____ Tech Prep, TWE p. 189</li> </ul> | <ul style="list-style-type: none"> <li> Demonstration 8–2, TWE pp. 190–191</li> <li> Transparency 12 Master and Worksheet, pp. 25–26, TCR</li> <li> Physics Lab and Pocket Lab Worksheets, pp. 40–41, TCR</li> <li>_____ Spanish Resources, TCR</li> </ul> |
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### Assess/Reteach

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| <ul style="list-style-type: none"> <li> Section Review, SE p. 192</li> <li>_____ Checking for Understanding, TWE p. 191</li> <li> Reteaching, TWE p. 192</li> <li> Study Guide, pp. 47–48, TCR</li> </ul> | <ul style="list-style-type: none"> <li> Reteaching, p. 11, TCR</li> <li>_____ Supplemental Problems, TCR</li> <li> Reviewing Physics: Mastering the Georgia QCC, TCR</li> </ul> |
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### Enrichment/Application

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| <ul style="list-style-type: none"> <li> Extension, TWE p. 192</li> </ul> | <ul style="list-style-type: none"> <li>_____ Critical Thinking, pp. 11–12, TCR</li> </ul> |
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### Close

- Quick Demo, TWE p. 192

### Chapter Assessment

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| <ul style="list-style-type: none"> <li> Chapter Review, SE pp. 193–197</li> <li>_____ Assessment, TWE p. 186</li> <li> Chapter Assessment, pp. 35–38, TCR</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>Videotape:</b> MindJogger Videoquizzes</li> <li> <b>Videotape:</b> The Mechanical Universe, Quads 1, 4</li> </ul> | <ul style="list-style-type: none"> <li> <b>Videodisc:</b> STVS Earth and Space, Disc 3, Side 1, Chs. 2, 6, 11, 12</li> <li>_____ <b>TestCheck Software</b></li> </ul> |
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