



# 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

## Particles Behave Like Waves

### Section Objectives

- \_\_\_\_\_ Describe evidence of the wave nature of matter and solve problems relating wavelength to particle momentum.
- \_\_\_\_\_ Recognize the dual nature of both waves and particles and the importance of the Heisenberg uncertainty principle.

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

**Georgia QCC** 7.2, 14.2, 20, 20.1, 20.2, 21, 21.2, 21.3, 24.3, 24.6

### Schedule

Block schedule: optional lesson  
 Single-period schedule: 3 sessions

### Focus

- \_\_\_\_\_ Convergent Question, TWE p. 637

### Teach

- \_\_\_\_\_ Physics & Technology, SE p. 639
- \_\_\_\_\_ Quick Demo, TWE p. 640
- \_\_\_\_\_ Demonstration 27-2, TWE p. 638
- \_\_\_\_\_ Spanish Resources, TCR
- \_\_\_\_\_ Physics Journal, TWE p. 638

### Assess/Reteach

- \_\_\_\_\_ Section Review, SE p. 640
- \_\_\_\_\_ Supplemental Problems, TCR
- \_\_\_\_\_ Checking for Understanding, TWE p. 640
- \_\_\_\_\_ Reviewing Physics: Mastering the Georgia QCC, TCR
- \_\_\_\_\_ Reteaching, TWE p. 640
- \_\_\_\_\_ Study Guide, p. 162, TCR

### Enrichment/Application

- \_\_\_\_\_ Enrichment, TWE p. 637
- \_\_\_\_\_ Enrichment, p. 53, TCR
- \_\_\_\_\_ Extension, TWE p. 640

### Close

- \_\_\_\_\_ Closing Strategy, TWE p. 640

### Chapter Assessment

- \_\_\_\_\_ Chapter Review, SE pp. 641–643
- \_\_\_\_\_ Alternate Assessment in the Science Classroom
- \_\_\_\_\_ Assessment, TWE p. 638
- \_\_\_\_\_ Performance Assessment in the Science Classroom
- \_\_\_\_\_ Chapter Assessment, pp. 123–126, TCR

### Multimedia Options

- \_\_\_\_\_ Videotape: MindJogger Videoquizzes
- \_\_\_\_\_ TestCheck Software
- \_\_\_\_\_ Videotape: The Mechanical Universe, Quad 7