



# 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 Nuclear Energy

### Section Objectives

- \_\_\_\_\_ Define how radioactive isotopes can be artificially produced and used.
- \_\_\_\_\_ Solve nuclear equations.
- \_\_\_\_\_ Define *nuclear fission* and *chain reaction*.
- \_\_\_\_\_ Describe the operation of one or more types of nuclear reactors.
- \_\_\_\_\_ Describe the fusion process.

**National Science Content Standards** UCP.1, UCP.2, UCP.3, UCP.5, A.1, A.2, E.1, E.2, F.1, F.3, F.6, G.3  
**Georgia QCC** 1, 1.1, 1.2, 1.3, 1.4, 14.5, 17.6, 22.1, 22.3, 22.4, 22.7, 23, 23.1, 23.2, 23.3, 24, 24.1, 24.3, 24.4, 24.5, 24.6, 24.7, 24.9, 24.10

### Schedule

Block schedule: optional lesson  
 Single-period schedule: 4 sessions

### Focus

- Focus Strategy, TWE p. 722

### Teach

- Physics Lab, SE p. 727
- Pocket Lab, SE p. 728
- \_\_\_\_\_ Physics & Technology, SE p. 732
- \_\_\_\_\_ Applying Physics, TWE p. 723
- \_\_\_\_\_ Tech Prep, TWE p. 723
- Quick Demo, TWE p. 725
- Demonstration 31-2, TWE p. 726
- \_\_\_\_\_ Physics Journal, TWE pp. 729, 730
- \_\_\_\_\_ Connections to Astronomy, TWE p. 731
- Transparency 57 Master and Worksheet, pp. 125–126, TCR
- Physics Lab and Pocket Lab Worksheets, pp. 165–166, 168, TCR
- \_\_\_\_\_ Spanish Resources, TCR

### Assess/Reteach

- Section Review, SE p. 732
- \_\_\_\_\_ Checking for Understanding, TWE p. 730
- Reteaching, TWE p. 731
- Study Guide, pp. 183–186, TCR
- Reteaching, p. 40, TCR
- \_\_\_\_\_ Supplemental Problems, TCR
- Reviewing Physics: Mastering the Georgia QCC, TCR

### Enrichment/Application

- \_\_\_\_\_ Cultural Diversity, TWE pp. 723, 728
- \_\_\_\_\_ Enrichment, TWE pp. 725, 728
- Extension, TWE p. 731
- \_\_\_\_\_ Critical Thinking, p. 38, TCR
- \_\_\_\_\_ Enrichment, p. 61, TCR

### Close

- Activity, TWE p. 732

### Chapter Assessment

- Chapter Review, SE pp. 733–735
- \_\_\_\_\_ Assessment, TWE pp. 724, 725, 730
- Chapter Assessment, pp. 141–144, TCR
- \_\_\_\_\_ Alternate Assessment in the Science Classroom
- \_\_\_\_\_ Performance Assessment in the Science Classroom

### Multimedia Options

- Videotape:** MindJogger Videoquizzes
- Videodisc:** STVS Chemistry, Disc 2, Side 2, Chs., 4, 6, 7; Earth and Space, Disc 3, Side 2,
- \_\_\_\_\_ Ch. 19; Physics Disc 1, Side 1, Ch. 21; Disc 1, Side 2, Ch. 12
- \_\_\_\_\_ TestCheck Software