

# 25.1 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

## Creating Electric Current from Changing Magnetic Fields

### Section Objectives

- \_\_\_\_\_ Explain how a changing magnetic field produces an electric current.
- \_\_\_\_\_ Define electromotive force and solve problems involving wires moving in a magnetic field.
- \_\_\_\_\_ Describe how an electric generator works and how it differs from a motor.
- \_\_\_\_\_ Recognize the difference between peak and effective voltage and current.


**National Science Content Standards** UCP.1, UCP.2, UCP.3, UCP.5, A.1, A.2, B.4, E.1, E.2, F.1, F.5, F.6, G.3

**Georgia QCC** 1, 1.2, 17.2, 18, 19, 20, 20.1, 24, 24.1, 24.2, 24.3, 24.4, 24.5, 24.6, 24.7, 24.8, 24.9, 24.10






### Schedule

Block schedule: 2 sessions  
 Single-period schedule: 3 sessions



### Focus

-  Activity, TWE p. 582

### Teach

- |   |   |
|---|---|
| _____ History Connection, SE p. 583   |  Demonstration 25-1, TWE p. 586                            |
|  Pocket Labs, SE pp. 585, 588             |  Transparency 44 Master and Worksheet, pp. 97–98, TCR     |
| _____ Physics & Society, SE p. 587  |  Physics Lab and Pocket Lab Worksheets, pp. 135–138, TCR |
| _____ Help Wanted, SE p. 589  | _____ Spanish Resources, TCR  |
|  Quick Demos, TWE pp. 581, 583, 585, 586 |   |
| _____ Physics Journal, TWE p. 584   |   |

### Assess/Reteach

- |   |   |
|---|---|
|  Section Review, SE p. 589 |  Study Guide, pp. 145–148, TCR |
| _____ Checking for Understanding, TWE p. 589  | _____ Supplemental Problems, TCR  |
|  Reteaching, TWE p. 589    |   |

### Enrichment/Application

- |                                      |   |
|--------------------------------------|---|
| _____ Cultural Diversity, TWE p. 585 |  Extension, TWE p. 589 |
| _____ Enrichment, TWE p. 588         | _____ Critical Thinking, p. 32, TCR   |

### Close

-  Closing Strategy, TWE p. 589

### Chapter Assessment

- |   |   |
|---|---|
| _____ Assessment, TWE p. 588                        | _____ Performance Assessment in the Science Classroom |
| _____ Alternate Assessment in the Science Classroom |   |

### Multimedia Options

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|--|--|
|  CD-ROM: Magnetic Fields, PCA       |  Videotape: The Mechanical Universe, Quad 6 |
|  Videotape: MindJogger Videoquizzes | _____ TestCheck Software   |