



# 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

## Changing Magnetic Fields Induce *EMF*

### Section Objectives

- \_\_\_\_\_ State Lenz's law and explain back-*EMF* and how it affects the operation of motors and generators.
- \_\_\_\_\_ Explain self-inductance and how it affects circuits.
- \_\_\_\_\_ Describe a transformer and solve problems involving voltage, current, and turn ratios.

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

**Georgia QCC** 1, 1.1, 1.2, 1.3, 1.4, 17.2, 18, 18.1, 18.3, 18.4, 19, 24, 24.1, 24.2, 24.3

### Schedule

Block schedule: 1 1/2 sessions  
 Single-period schedule: 3 sessions

### Focus

- \_\_\_\_\_ Discrepant Event, TWE p. 590

### Teach

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| <ul style="list-style-type: none"> <li> _____ Pocket Labs, SE pp. 591, 593</li> <li> _____ Design Your Own Physics Lab, SE p. 595</li> <li>_____ Applying Physics, TWE p. 592</li> <li> _____ Demonstration 25-2, TWE pp. 592–593</li> <li>_____ Physics Journal, TWE p. 594</li> <li> _____ Quick Demo, TWE p. 594</li> <li>_____ Tech Prep, TWE p. 594</li> </ul> | <ul style="list-style-type: none"> <li>_____ Connections to Criminology, TWE p. 596</li> <li> _____ Transparency 45 Master and Worksheet, pp. 99–100, TCR</li> <li> _____ Physics Lab and Pocket Lab Worksheets, pp. 139–140, TCR</li> <li> _____ Laboratory Manual, Labs 25.1, 25.2, 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. 597</li> <li>_____ Checking for Understanding, TWE p. 596</li> <li> _____ Reteaching, TWE p. 596</li> <li> _____ Study Guide, pp. 149–150, TCR</li> </ul> | <ul style="list-style-type: none"> <li> _____ Reteaching, pp. 31–32, 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. 596</li> </ul> | <ul style="list-style-type: none"> <li>_____ Enrichment, pp. 49–50, TCR</li> </ul> |
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### Close

- \_\_\_\_\_ Activity, TWE p. 597

### Chapter Assessment

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| <ul style="list-style-type: none"> <li> _____ Chapter Review, SE pp. 598–601</li> <li>_____ Assessment, TWE p. 593</li> <li> _____ Chapter Assessment, pp. 115–118, 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> _____ Videotape: MindJogger Videoquizzes</li> <li> _____ Videodisc: STVS Chemistry, Disc 2, Side 2, Chs. 14, 15</li> </ul> | <ul style="list-style-type: none"> <li>_____ TestCheck Software</li> </ul> |
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