

Automotive Technology 6th Edition

Chapter 39 – Electrical Fundamentals

Lesson Plan



CHAPTER SUMMARY:

1. Electricity and how electrons move through a conductor
 2. Sources of electricity and units of electricity
 3. Conductors and resistance
 4. Resistors
-



OBJECTIVES:

1. Discuss the fundamentals of electricity and explain how electrons move through a conductor.
 2. Explain the units of electrical measurement, and discuss the relationship among volts, amperes, and ohms.
 3. Discuss the different sources of electricity.
 4. Explain conductors and resistance, and describe the function of resistors.
-



RESOURCES: (All resources may be found at <http://www.jameshalderman.com>)

1. **Task Sheet:** Electrical Fundamentals
 2. Chapter PowerPoint
 3. Chapter Crossword Puzzle and Word Search
 4. Animations: AC, Alternating Current, Copper Atom, Electron Flow, and Electron Travel - Heat
 5. Animations: Electron Travel - Light, Electron Travel - Magnet, and Electron Travel - Pressure
 6. Animations: Voltage & Resistance, Static Electricity, and Lightning
 7. Videos: Voltage testing fundamentals (time 39:42)
-



ACTIVITIES:

1. **Task Sheet:** Have students complete Vehicle Electrical Fundamentals Task Sheet.
-



ASSIGNMENTS:

1. Chapter crossword and word search puzzles.
 2. Complete end of chapter 10 question quiz.
-



CLASS DISCUSSION:

1. Review and group discussion chapter Frequently Asked Questions and Tech Tips sections.
 2. Review and group discussion of the five (5) chapter Review Questions.
-



NOTES AND EVALUATION:
