# Automotive Technology 7<sup>th</sup> Edition Chapter 41 – Automotive Wiring and Wire Repair Lesson Plan

#### CHAPTER SUMMARY:

1. Automotive Wiring, Ground Wires, Battery Cables, and Fuses and Circuit Protection Devices

2. Jumper Cables, Terminals and Connectors, Wire Repair, and Electrical Conduit



## **OBJECTIVES**:

- 1. Explain automotive wiring and wire gauge systems.
- 2. Explain the purpose of ground wires.
- 3. Explain the purpose of battery cables.
- 4. Explain the purpose of jumper cables.
- 5. Describe how fuses, fusible links, circuit breakers, and PTC devices protect circuits and wiring.
- 6. List the steps for removing a terminal from a connector.
- 7. List the steps for performing each method of wire repair.
- 8. Explain the types of electrical conduit. Explain automotive wiring and wire gauge systems.

### **RESOURCES:** (All resources may be found at jameshalderman.com)

- 1. Task Sheet: Fusible Links, Circuit Breakers, and Fuses
- 2. Task Sheet: Inspect Wiring and Connectors
- 3. Task Sheet: Wire Harness and Connector Repair
- 4. Task Sheet: Solder Wire Repair
- 5. Chapter PowerPoint
- 6. Crossword Puzzle and Word Search
- 7. Videos: (A6) Electrical/Electronic Systems Videos
- 8. Animations: (A6) Electrical/Electronic Systems Animations

# ACTIVITIES:

- 1. Task Sheet: Fusible Links, Circuit Breakers, and Fuses
- 2. Task Sheet: Inspect Wiring and Connectors
- 3. Task Sheet: Wire Harness and Connector Repair
- 4. Task Sheet: Solder Wire Repair
- 5. Crossword Puzzle and Word Search



DEMO

#### ASSIGNMENTS:

- 1. Chapter crossword and word search puzzles from the website.
- 2. Complete end of chapter quiz from the textbook.
- 3. Complete multiple choice and short answer quizzes downloaded from the website.



# **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 <u>Review Questions</u>.



#### NOTES AND EVALUATION:

