**Advanced Engine Performance Diagnosis 8th Edition**

**Chapter 4 – Circuit Testers and Digital Meters**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Fused Jumper Wire, Test Lights, Logic Probe, and Digital Multimeters

2. Inductive Ammeters, Diode Check, Duty Cycle, and Frequency, and Electrical Unit Prefixes

3. How to Read Digital Meters

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**OBJECTIVES:**

1. Discuss how to safely set up and use a fused jumper wire.

2. Discuss how to safely set up and use a test light.

3. Discuss how to safely set up and use a logic probe.

4. Describe the uses of digital multimeters.

5. Describe the uses of inductive ammeters.

6. Discuss diode check and frequency.

7. Describe the prefixes used with electrical units.

8. Describe how to read digital meters. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: Digital Multimeter Use for Electrical Problems

2. Task Sheet: Measure Voltage Using a Voltmeter

3. Task Sheet: Measuring Current Using an Ammeter

4. Task Sheet: Check Electrical Circuits Using an Ohmmeter

5. Task Sheet: Test Light Usage

6. Task Sheet: Circuit Testing Using a Fused Jumper Wire

7. Chapter PowerPoint

8. Crossword and Word Search Puzzles

9. Videos: (A8) Computerized Engine Controls Diagnosis and Repair

10. Animations: (A8) Computerized Engine Controls Diagnosis and Repair

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**ACTIVITIES:**

1. Task Sheet: Digital Multimeter Use for Electrical Problems

2. Task Sheet: Measure Voltage Using a Voltmeter

3. Task Sheet: Measuring Current Using an Ammeter

4. Task Sheet: Check Electrical Circuits Using an Ohmmeter

5. Task Sheet: Test Light Usage

6. Task Sheet: Circuit Testing Using a Fused Jumper Wire

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**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.

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**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.

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**NOTES AND EVALUATION:**

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