**Automotive Electrical and Engine Performance - 9th edition**

**Ch6: Digital Storage Oscilloscopes (DSOs)**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Types of Oscilloscopes, Scope Setup and Adjustment, and DC and AC Coupling

2. Pulse Trains, Number of Channels, Triggers, Using a Scope, and Using DSO Accessories

3. Waveform Analysis

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**OBJECTIVES:**

1. Explain the advantages of a digital storage oscilloscope.

2. Describe the process for adjusting the oscilloscope time base and voltage scale.

3. Explain the difference between AC and DC coupling.

4. Describe the different pulse train measurement scales.

5. Explain the purpose of a trigger. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: Oscilloscope

2. Crossword Puzzle and Word Search

3. Videos: (A6) Electrical/Electronic Systems Videos

4. Animations: (A6) Electrical/Electronic Systems Animations

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**ACTIVITIES:**

1. Task Sheet: Oscilloscope

2. Chapter PowerPoint

3. Crossword Puzzle and Word Search

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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. Ten (10) question end of Chapter Quiz.

3. Five (5) end of chapter Review Question for class discussion.

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**NOTES AND EVALUATION:**

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