**Automotive Electricity and Electronics**

**Chapter 10 –** **Oscilloscopes and Graphing Multimeters**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Types of Oscilloscopes, Scope Setup and Adjustments, AC Voltage, and DC and AC Voltage

2. Pulse Trains, Number of Channels, Triggers, Using a Scope, and Graphing Multimeter

3. Graphing Scan Tools

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**OBJECTIVES:**

1. Compare the different types of oscilloscopes.

2. Explain time base and volts per division settings.

3. Describe the use of dc or ac coupling when displaying waveforms on an oscilloscope.

4. Explain how to interpret pulse trains, channels, and triggers on a scope.

5. Explain how to use a scope and discuss graphing multimeters and scan tools.

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**RESOURCES:** [(All resources may be found at jameshalderman.com)](https://jameshalderman.com/)

1. Task Sheet: Oscilloscope

2. Chapter PowerPoint

3. [Crossword and Word Search Puzzles (A6)](https://jameshalderman.com/a6_puzzles_lib_page/)

4. [Videos: (A6) Electrical/Electronic Systems](https://jameshalderman.com/a6_vid_lib_page/)

5. [Animations: (A6) Electrical/Electronic Systems](https://jameshalderman.com/a6_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Oscilloscope

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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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