**Automotive Technology 7th Edition**

**Chapter 73 – Oxygen Sensors**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Oxygen Sensors, PCM Uses of the Oxygen Sensor, and Oxygen Sensor Diagnosis

2. Post-Catalytic Converter Oxygen Sensor Testing and Wide-Band Oxygen Sensors

3. Dual Cell Planar Wide-Band Sensor Operation and Dual Cell Diagnosis

4. Single Cell Wide-Band Oxygen Sensors, and Oxygen Sensor Related Diagnostic Trouble Codes

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**OBJECTIVES:**

1. Discuss how O2S sensors work.

2. Discuss PCM uses of the oxygen sensor.

3. Discuss oxygen sensor diagnosis.

4. Discuss post-catalytic converter O2S testing.

5. Explain the operation of wide-band oxygen sensors.

6. Describe dual cell planar wide-band sensor operation.

7. Discuss dual cell diagnosis.

8. Describe single cell wide-band oxygen sensors.

9. Interpret oxygen sensor-related diagnostic trouble codes. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: Oxygen Sensor Diagnosis

2. Task Sheet: Wide-Band Oxygen Sensor

3. Chapter PowerPoint

4. Crossword Puzzle and Word Search

5. Videos: [(A8) Engine Performance Videos](https://jameshalderman.com/a8_vid_lib_page/)

6. Animations: [(A8) Engine Performance Animations](https://jameshalderman.com/a8_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Oxygen Sensor Diagnosis

2. Task Sheet: Wide-Band Oxygen Sensor

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. Review and group discussion of the five (5) chapter Review Questions.

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**NOTES AND EVALUATION:**

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