**Advanced Engine Performance Diagnosis 8th Edition**

**Chapter 26 – Vehicle Emission Standards and Testing**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Normal Engine Combustion, Exhaust Analysis and Combustion Efficiency, and Catalytic Converter

2. Exhaust Analysis as a Diagnostic Tool, Engine Fault Possibilities, and Emission Standards

3. Vehicle Emission Testing

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**OBJECTIVES:**

1. Discuss normal engine combustion.

2. Discuss exhaust analysis and combustion efficiency.

3. Discuss the catalytic converter.

4. Explain diagnosis using exhaust analysis.

5. Explain engine fault possibilities.

6. Discuss EU and European emission standards.

7. Explain vehicle emission testing. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: Smoke Test of the EVAP System

2. Chapter PowerPoint

3. Crossword and Word Search Puzzles

4. Videos: (A8) Emission Control Systems Diagnosis and Repair

5. Animations: (A8) Emission Control Systems Diagnosis and Repair

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**ACTIVITIES:**

1. Task Sheet: Smoke Test of the EVAP System

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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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