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



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



ACTIVITIES:

1. Task Sheet: Smoke Test of the EVAP System



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.



CLASS DISCUSSION:

- 1. Review and group discussion chapter <u>Frequently Asked Questions</u> and <u>Tech Tips</u> sections.
- 2. Review and group discussion of the five (5) chapter Review Questions.



NOTES AND EVALUATION:

