

Automotive Technology 7th Edition

Chapter 79 – Vehicle Emissions 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 US and European emission standards.
7. Explain vehicle emission testing.

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



1. Task Sheet: Exhaust Gas Analysis
2. Crossword Puzzle and Word Search
3. Chapter PowerPoint
4. Videos: [\(A8\) Engine Performance Videos](#)
5. Animations: [\(A8\) Engine Performance Animations](#)

ACTIVITIES:



1. Task Sheet: Exhaust Gas Analysis
2. Crossword Puzzle and Word Search

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 [Frequently Asked Questions](#) and [Tech Tips](#) sections.
2. Review and group discussion of the five (5) chapter [Review Questions](#).

NOTES AND EVALUATION:

