**Automotive Engines Theory and Servicing 10th Edition**

**Chapter 12 – Antifreeze and Coolant**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Coolant Fundamentals, Types of Coolant, Water, and Coolant Freezing/Boiling Temperatures

2. Coolant Testing and Coolant Replacement Issues

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**OBJECTIVES:**

1. Discuss coolant fundamentals.

2. Compare the different types of coolant.

3. Discuss coolant freezing/boiling temperatures and water as coolant.

4. Discuss coolant testing and coolant replacement issues.

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

1. Task Sheet: Antifreeze and Coolant Information

2. Chapter PowerPoint

3. [Crossword Puzzle and Word Search (A1)](https://jameshalderman.com/a1_puzzles_lib_page/)

4. [Videos: (A1) Engine Repair](https://jameshalderman.com/a1_vid_lib_page/)

5. [Animations: (A1) Engine Repair](https://jameshalderman.com/a1_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Antifreeze and Coolant Information

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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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