**Automotive Heating and Air Conditioning 9th Edition**

**Chapter 2 –** **Heating and Air-Conditioning Principles**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. HVAC, Heating and Cooling Load, Heat Movement, and Air-Conditioning Process

2. Purpose of an HVAC System

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**OBJECTIVES:**

1. Prepare for the ASE Heating and Air Conditioning (A7) certification test content area “A” (A/C System Service, Diagnosis and Repair).

2. Discuss the changes of states of matter.

3. Discuss the effect of heat and temperature on matter.

4. Discuss the two types of humidity.

5. Explain heating and cooling load.

6. Explain the three ways in which heat flows.

7. Describe the air-conditioning process.

8. Discuss the different types of emission standards.

9. Explain the purpose of an HVAC system. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: AC Component Identification

2. Chapter PowerPoint

3. [Crossword Puzzle and Word Search (A7)](https://jameshalderman.com/a7_puzzles_lib_page/)

4. [Videos: (A7) Heating & Air Conditioning](https://jameshalderman.com/a7_vid_lib_page/)

5. [Animations: (A7) Heating & Air Conditioning](https://jameshalderman.com/a7_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: AC Component Identification

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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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