

# Automotive Technology 7<sup>th</sup> Edition

## Chapter 60 – 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



#### **OBJECTIVES:**

1. Discuss automotive heating, ventilation, and air-conditioning systems, including changes of state, the effects of heat on matter, and humidity.
2. Explain heating and cooling load.
3. Explain the three ways in which heat flows.
4. Describe the air-conditioning process.
5. Explain the purpose of an HVAC system.



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

1. Task Sheet: A/C Component Identification
2. Task Sheet: A/C Component Purpose and Function
2. Chapter PowerPoint
3. Crossword Puzzle and Word Search
4. Videos: [\(A7\) Heating & Air Conditioning Videos](#)
5. Animations: [\(A7\) Heating & Air Conditioning Animations](#)



#### **ACTIVITIES:**

1. Task Sheet: A/C Component Identification
2. Task Sheet: A/C Component Purpose and Function
3. 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:**