

# Automotive Chassis Systems 8<sup>th</sup> Edition

## Chapter 5 – Braking Principles and Friction Materials

### Lesson Plan

#### **CHAPTER SUMMARY:**



1. Fundamentals of Brake Systems, Brake Design Requirements, and Brake System Categories
  2. Antilock Brake System Overview, and Federal Brake Standards
  3. Brake Repair and the Law
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#### **OBJECTIVES:**



1. Discuss the energy principles that apply to brakes.
  2. Discuss the friction principles that apply to brakes.
  3. Describe how brakes can fade due to excessive heat.
  4. Describe how deceleration rates are measured.
  5. Discuss friction materials used in brake systems.
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#### **RESOURCES:** ([All resources may be found at jameshalderman.com](http://www.jameshalderman.com))



1. Task Sheet: Brake System Principles
  2. Task Sheet: Brake Friction Material Identification
  3. Chapter PowerPoint
  4. [Crossword Puzzle and Word Search](#)
  5. [Videos: ASE A5 Brakes](#)
  6. [Animations: ASE A5 Brakes](#)
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#### **ACTIVITIES:**



1. Task Sheet: Brake System Principles
  2. Task Sheet: Brake Friction Material Identification
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#### **ASSIGNMENTS:**



1. Chapter crossword and word search puzzles.
  2. Complete end of chapter 5 question quiz from text book.
  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:**

