**Automotive Chassis Systems 8th Edition**

**Chapter 25 –** **Suspension System Components and Operation**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Frame Construction, Platforms, Unsprung Weight, and Types of Suspension

2. Hooke’s Law, Coil Springs, Leaf Springs, and Torsion Bars

3. Suspension Principles, Steering Knuckles, Control Arms, and Ball Joints

4. Strut Rods, Stabilizer Bars, Shock Absorbers, Struts, and Bump Stops

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**OBJECTIVES:**

1. Describe the purpose of a suspension system.

2. List the various types of suspensions and their component parts.

3. Define Hooke’s law and explain how coil, leaf, and torsion bar springs work.

4. Describe how suspension components allow wheel movement up and down and provide for turning.

5. Describe how shock absorbers control spring forces.

6. Describe the function of bump stops.

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

1. Task Sheet: Suspension and Steering System Information

2. Task Sheet: Research Vehicle Service Information

3. [Crossword Puzzle and Word Search](https://jameshalderman.com/a4_puzzles_lib_page/)

4. [Videos: ASE A4 Suspension and Steering](https://jameshalderman.com/a4_vid_lib_page/)

5. [Animations: ASE A4 Suspension and Steering](https://jameshalderman.com/a4_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Suspension and Steering System Information

2. Task Sheet: Research Vehicle Service Information \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**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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