**Automotive Technology 7th Edition**

**Chapter 131 – EV and HEV Transmissions**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Transmissions and Transaxles, Principles Involved, HEV Transmissions, and GM Parallel Hybrid Truck (PHT)

2. GM Two-Mode Hybrid Transmission, Ford/Lincoln 10R80 MHT, and Toyota/Lexus Power-Split System

3. Hybrid Transmission Diagnosis, and Electric Vehicle Transmissions

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**OBJECTIVES:**

1. Describe the powertrain configuration.

2. Explain the principles involved with vehicle transmissions/transaxles.

3. Describe the function of a hybrid electric vehicle (HEV) transmission.

4. Discuss the transmission in GM parallel hybrid trucks (PHTs).

5. Discuss the GM two-mode hybrid transmission.

6. Discuss the Ford/Lincoln 10R80 MHT.

7. Discuss the Toyota/Lexus power-split system.

8. Discuss the diagnosis of an HEV transmission.

9. Describe the transmissions used in electric vehicles (EVs). \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Task Sheet: Hybrid Vehicle Drivetrain

2. Crossword Puzzle and Word Search

3. Chapter PowerPoint

4. Videos: [(A2) Automatic Transmissions and Transaxles Videos](https://jameshalderman.com/a2_vid_lib_page/)

5. Animations: [(A2) Automatic Transmissions and Transaxles Animations](https://jameshalderman.com/a2_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Hybrid Vehicle Drivetrain

2. Crossword Puzzle and Word Search

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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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