**Electric & Hybrid Electric Vehicles 1st Edition**

**Chapter 2 – Introduction to Electric and Hybrid Electric Vehicles**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Hybrid Electric Vehicles, Electric Vehicle, and BEV and Hybrid History

2. Efficiencies of Electric Motors and ICEs, and Driving a Hybrid or Electric Vehicle

3. Levels of Hybrid Vehicles and Classifications of Hybrid Vehicles Powertrain

4. One-, Two-, and Three- Motor Hybrid System

5. Advantages and Disadvantages of an Electric Vehicle

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**OBJECTIVES:**

1. Explain the definition of a hybrid and electric vehicle.

2. Describe the unique characteristics of owning or driving a hybrid or electric vehicle.

3. Explain the differences in the levels of hybrid vehicles.

4. Describe the different powertrain configurations in a hybrid vehicle.

5. Explain the differences between one-, two-, and three-motor systems.

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

1. Task Sheet: Hybrid Electric Vehicle Nomenclature

2. Task Sheet: Types of Hybrid and Electric Vehicles

3. Chapter PowerPoint

4. [Crossword Puzzle and Word Search (L3)](https://jameshalderman.com/l3_puzzles_lib_page/)

5. [Videos: (L3) Light Duty Hybrid Electric](https://jameshalderman.com/l3_vid_lib_page/)

6. [Animations: (L3) Light Duty Hybrid Electric](https://jameshalderman.com/l3_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Hybrid Electric Vehicle Nomenclature

2. Task Sheet: Types of Hybrid and Electric Vehicles

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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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