

# 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](http://www.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 \(L3\)](#)
  5. [Videos: \(L3\) Light Duty Hybrid Electric](#)
  6. [Animations: \(L3\) Light Duty Hybrid Electric](#)
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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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