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

**Chapter 3 – Health and Environmental Concerns**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Need for Electric Vehicles (EV) and Hybrid Electric Vehicles (HEV) and Ozone

2. Ultraviolet Radiation Absorption and Health Effects of Air Pollution and Acid Rain

3. Carbon Footprint

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**OBJECTIVES:**

1. Identify carbon-based fuels.

2. Explain how ozone affects our environment.

3. Describe how organic materials decompose into carbon-based fuels.

4. Explain the difference between carbon-based and non-carbon-based energy sources.

5. List alternatives to carbon-based fuels.

6. List the factors that will be needed to reduce the carbon footprint.

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

1. Task Sheet: Emission and Chemical Identification

2. Task Sheet: Emission Label Terms

3. Chapter PowerPoint

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

5. [Videos: Environmental Concerns](https://jameshalderman.com/ev_vid_lib_page/)

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

7. [Animations: Environmental Concerns](https://jameshalderman.com/ev_anim_lib_page/)

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

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**ACTIVITIES:**

1. Task Sheet: Emission and Chemical Identification

2. Task Sheet: Emission Label Terms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**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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