**Automotive Technology 6th Edition**

**Chapter 18 – Gasoline Engine Operation, Parts, and Specifications**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Energy and Power, engine construction overview, engine parts and systems

2. Four-stroke cycle operation and engine classification and construction

3. Engine measurement and compression ratio

4. Torque and horsepower

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**OBJECTIVES:**

1. Discuss engine construction, the engine’s purpose and function, energy and power, and engine construction.

2. Explain engine parts and systems.

3. Explain four-stroke cycle operation.

4. Discuss engine classification and construction.

5. Explain engine measurement.

6. Discuss compression ratio, torque, and horsepower.

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**RESOURCES:** (All resources may be found at <http://www.jameshalderman.com>) Internet access required to hyperlink.

**1.** **Task Sheet ASE (A1-A-2) P-1**: Gasoline Engine Identification

**2**. **Task Sheet ASE (A1-A-2) P-1**: General Engine Specification

**3. Task Sheet ASE (A1-D-6) P-1 (MLR only)**: Lubrication & Cooling System Components

4. Chapter PowerPoint

5. Chapter Crossword Puzzle and Word Search

6. Videos: [(A1) Engine Repair Videos](https://jameshalderman.com/a1_vid_lib_page/)

7. Animations: [(A1) Engine Repair Animations](https://jameshalderman.com/a1_anim_lib_page/)

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**ACTIVITIES:**

**1. Task Sheet ASE (A1-A-2) P-1**: Have students complete Gasoline Engine Identification Task Sheet

**2**. **Task Sheet ASE (A1-A-2) P-1**: Have students complete General Engine Specification Task Sheet

**3. Task Sheet ASE (A1-D-6) P-1 (MLR only)**: Have students complete Lubrication & Cooling System Components Task Sheet

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**ASSIGNMENTS:**

1. Chapter crossword and word search puzzles.

2. Complete end of chapter 10 question quiz.

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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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