

Objective

By the end of this lesson, the student will be able to understand the basic principles of automotive repair and perform simple maintenance tasks on their own vehicle.

Materials and Prep

- Textbooks or online resources on automotive repair
- Basic automotive tools (wrenches, screwdrivers, etc.)
- A vehicle for demonstration purposes
- Access to a safe workspace

Activities

- **Introduction to Automotive Systems:** Start by discussing the different systems in a vehicle (engine, transmission, brakes, etc.) and their basic functions. Show the student various parts of a vehicle and explain their roles.
- **Basic Maintenance Tasks:** Demonstrate simple maintenance tasks such as checking fluid levels, changing a tire, and replacing wiper blades. Have the student practice these tasks under your guidance.
- **Troubleshooting and Problem Solving:** Introduce the concept of troubleshooting common automotive issues and discuss the steps involved in diagnosing and fixing problems. Provide examples and encourage the student to think critically about potential solutions.
- **Hands-on Repair Project:** Assign the student a small repair project that aligns with their skill level, such as replacing a faulty fuse or a worn-out belt. Guide them through the process and encourage them to apply their knowledge.

Twelfth Grade Talking Points

- "As a twelfth grader, it's important to develop practical skills that can benefit you in the real world. Automotive repair is one such skill that can save you time and money."
- "Understanding the different systems in a vehicle is crucial for troubleshooting and performing maintenance tasks effectively."
- "By learning how to perform basic maintenance tasks, you can ensure the longevity and reliability of your own vehicle."
- "Problem-solving is a valuable skill in automotive repair. It involves analyzing symptoms, identifying potential causes, and implementing solutions."
- "Taking on a hands-on repair project can boost your confidence and deepen your understanding of automotive repair principles."