Unit 7 STEERING

Content Area: **Applied Technology**
Course(s):
Time Period: **Marking Period 1**
Length: **10 - 15 class periods**
Status: **Published**

Brief Summary of Unit

In this unit, students will expand on their knowledge of the Automotive Steering System. After the teacher leads discussions and presentations on the modern automotive steering system, students will perform a variety of tasks pertaining to different automotive steering system concerns. Students will perform steering system-related maintenance, and repairs for staff and community members' vehicles. They will be required to use computer-based software and textbooks for reference material, and collaborate with team members to diagnose and repair noted concerns. The objective of this unit is to instill confidence in the student's critical thinking and diagnostic ability, problem-solving skills, and ability to function in a group environment.

July 2022

ESESSENTIAL QUESTIONS/ ENDURING UNDERSTANDINGS

ESSENTIAL QUESTIONS

- What are the major components of the Steering system and how do they interact to allow the vehicle to turn and maintain stability?
- What are the functions of these components and how do you determine if a component is faulty?

ENDURING UNDERSTANDINGS

- Students will understand the importance of knowing how each component in the steering system is linked together, and the proper diagnostic, and repair procedures to address a particular concern in the system.
- At the end of this unit students will understand the different types of Steering Systems and the different methods of diagnosis and repair required for success when addressing Steering System concerns.

OBJECTIVES

STUDENTS WILL KNOW

- The major components of a steering system and how each component interacts with other components.
- The difference between linkage and rack and pinion type steering systems.

- The difference in the operation of electronic and hydraulic power steering systems.

STUDENTS WILL BE SKILLED AT

- The inspection and diagnosis of common steering system concerns.
- Determining the integrity of a Steering system, and servicing Steering system components.

LEARNING PLAN

- Teacher-led discussions on Steering Systems function and components.
- Hands-on Job Sheets on component location, operation, and repair of steering-related concerns.
- Use of the text and workbook Modern Automotive Technology.
- Written tests and writing prompts on related topics.
- Group discussions and essential questions throughout the lesson.

MATERIALS

Text Book; Modern Automotive Technology

Job Sheets

Visual aids

Videos

Shop vehicles

All Data Automotive Internet Program

Google

Electrical, Pneumatic, and Hydraulic tools

Various hand tools

ASSESSMENT

Formative

Verbal questioning during Hands-on Job Sheets

Visual Observations

Summative

Written tests

Hands-on Job Sheets

Written Essays

Benchmark

Midterm/Final exams

Alternative

Student presentation on the steering system.

Accomodations

https://docs.google.com/spreadsheets/d/1CvoX6NXdGUPtTPcEqPOsnWbqpDLS4Ego1W1eaIrGYTo/