

Unit 2 Tools 2019

Content Area: **Applied Technology**
Course(s):
Time Period: **Marking Period 1**
Length: **2 weeks**
Status: **Published**

Summary

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This unit is an overview of the basic hand tools of an automotive shop. Students will learn the names, use, and care of basic automotive hand tools. Students will know the function and use of the Six Simple Machines and how they are used in tool design and creation. Emphasis will be on, safety, knowledge and correct use of tools.

Introduction:

The goal of this unit is to teach the basic tools that are essential for performing basic automotive repairs. Students will be taught the six basic machines and how they are used and combined to create all complex tools. By making students aware of the dangers and accidents that can occur, students will be better equipped to avoid and foresee possible accidents. Students will be made aware of the dangers while working in the shop, and how to recognize and avoid mishaps. The possible dangers are fires, physical injuries, chemical burns, electrocution, etc..

July 2019

Standards

MA.K-12.5	Use appropriate tools strategically.
MA.K-12.6	Attend to precision.
LA.RH.9-10.9	Compare and contrast treatments of the same topic, or of various perspectives, in several primary and secondary sources; analyze how they relate in terms of themes and significant historical concepts.
LA.RST.9-10.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
LA.RST.9-10.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP11	Use technology to enhance productivity.

WRK.9.2.12.CAP	Career Awareness and Planning
CAEP.9.2.12.C.2	Modify Personalized Student Learning Plans to support declared career goals.
TECH.K-12.P.3	Consider the environmental, social and economic impacts of decisions.
TECH.K-12.P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
TECH.K-12.P.8	Use technology to enhance productivity increase collaboration and communicate effectively.
TECH.K-12.P.9	Work productively in teams while using cultural/global competence.

Essential Questions

Why is it important to know how to choose and use the proper tool for any given job?

How do you determine the tool to use and what are the precautions to take while using them?

What are the basic hand tools used in the automotive shop and what are they used for?

How are each of these tools used and for what type of fasteners?

Objectives

Students will know.....

the proper use of tools will make job repair easier.

knowledge of tools is essential in selecting the right tool for the job to be performed.

misuse of tools can be hazardous to themselves and others.

safety protocols must be observed in order to prevent injury to themselves and others

Students will be skilled at....

using properly the different types of tools used in an automotive shop.

the ability to select the proper tool for each particular job.

caring for tools and using them correctly to avoid injury.

Learning Plan

Preview the essential questions and connect to learning throughout the unit.

Visual demonstration of different automotive hand tools

Use of Modern Automotive Technology text and workbook chapter 3.

Teacher led discussions

Hands on test of basic hand tool knowledge

Closing discussion and anticipatory set.

Assessment

answer essential questions _Formative

quizzes and unit test on tool use and identification- Summative

participate in class discussions regarding proper tool use and safety procedures - Formative

Job Sheets - Formative

Materials

Text: Modern Automotive Technology Ch3

Internet Research and Video Clips

visual materials used to demonstrate safety

Modifications

<https://docs.google.com/spreadsheets/d/1AckQSTINShzlM-rDV5YKYUFm2WMCxJQiS10rEZ4jCC8/edit?usp=sharing>