

## Course Title – Car Care

Implement start year – 2017-2018

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## Unit #1 - Safety and Tools

### Transfer Goal –

Students will be able to safely work, use tools, and measure in a workshop setting by applying technology to address real-world problems, enhance life, and extend human capabilities to meet the challenges of 21<sup>st</sup> century society.

## Stage 1 – Desired Results

### Established Goals

**2009 NJCCC Standard(s), Strand(s)/CPI #**  
(<http://www.nj.gov/education/cccs/2009/final.htm>)

**Common Core Curriculum Standards for Math and English**  
(<http://www.corestandards.org/>)

### 8.2 Technology Education, Engineering, and Design

All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world, as they relate to the individual, global society, and the environment.

G. The Designed World: The designed world is the product of a design process that provides the means to convert resources into products and systems.

- 8.2.12.G.1 Analyze the interactions among various technologies and collaborate to create a product or system demonstrating their interactivity.

### 21<sup>st</sup> Century Themes

( [www.21stcenturyskills.org](http://www.21stcenturyskills.org) )

- Global Awareness
- Financial, Economic, Business and Entrepreneurial Literacy
- Civic Literacy
- Health Literacy
- Environmental Literacy

### 21<sup>st</sup> Century Skills

#### *Learning and Innovation Skills:*

- Creativity and Innovation
- Critical Thinking and Problem Solving
- Communication and Collaboration

#### *Information, Media and Technology Skills:*

- Information Literacy
- Media Literacy
- ICT (Information, Communications and Technology) Literacy

<p>CCSS.ELA-LITERACY.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.</p> <p>CCSS.ELA-LITERACY.WHST.9-10.2.F Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p> <p>9.1 21st-Century Life &amp; Career Skills All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.</p> <p>9.1.12.A.1 Apply critical thinking and problem-solving strategies during structured learning experiences.</p>	<p><i>Life and Career Skills:</i></p> <p><input checked="" type="checkbox"/> Flexibility and Adaptability</p> <p><input checked="" type="checkbox"/> Initiative and Self-Direction</p> <p><input checked="" type="checkbox"/> Social and Cross-Cultural Skills</p> <p><input checked="" type="checkbox"/> Productivity and Accountability</p> <p><input checked="" type="checkbox"/> Leadership and Responsibility</p>
<p><b><u>Enduring Understandings:</u></b> <i>Students will understand that . . .</i></p> <p><i>EU 1</i> the implementation of proper safety procedures will minimize potential hazards.</p> <p><i>EU 2</i> selecting the proper tool for the task given is essential.</p>	<p><b><u>Essential Questions:</u></b></p> <p><i>EU 1</i></p> <ul style="list-style-type: none"> <li>• Why is safety important?</li> <li>• How does behavior affect safety?</li> <li>• How does the maintenance of tools and machines impact safety?</li> <li>• How does classroom environment influence safety?</li> </ul> <p><i>EU 2</i></p> <ul style="list-style-type: none"> <li>• Why is the selection of the correct tool important?</li> <li>• How does the design of a tool give you an advantage?</li> </ul>

<p><b>Knowledge:</b> Students will know . . .</p> <p><i>EU 1</i></p> <ul style="list-style-type: none"> <li>• proper classroom expectations (attire, behavior, procedures, etc.).</li> <li>• the form, function, and safe application of hand tools.</li> <li>• the form, function, and safe application of power tools.</li> <li>• the dangers associated with flammable materials, gases, and liquids used in the lab.</li> </ul> <p><i>EU 2</i></p> <ul style="list-style-type: none"> <li>• how to identify broken or defective tools.</li> <li>• the proper names of hand tools and power tools.</li> <li>• how using the correct tool for a specific task is advantageous.</li> <li>• when to use a 1/4", 3/8", or 1/2" drive ratchets.</li> <li>• when to use manual or power tools.</li> </ul>	<p><b>Skills:</b> Students will be able to . . .</p> <p><i>EU 1</i></p> <ul style="list-style-type: none"> <li>• demonstrate proper general lab safety.</li> <li>• demonstrate the proper safety, form and function of hand tools.</li> <li>• demonstrate the proper safety, form and function of power tools.</li> <li>• select the appropriate tool for a required task.</li> <li>• safely work with flammable materials, gasses, and liquids commonly used in the lab.</li> </ul> <p><i>EU 2</i></p> <ul style="list-style-type: none"> <li>• maintain and store tools properly.</li> <li>• demonstrate the proper selection and use of hand tools.</li> <li>• demonstrate the proper selection and use of power tools.</li> </ul>
<p><b>Stage 2 – Assessment Evidence</b></p>	
<p><b>Other Recommended Evidence:</b></p> <ul style="list-style-type: none"> <li>• Quiz/Test</li> <li>• Students demonstrate setup, safety, and operation of hand/power tools</li> <li>• Student presentations on safety, form and function of hand/power tools</li> <li>• Group discussions on proper safety practices</li> </ul>	

### Stage 3 – Learning Plan

**Suggested Learning Activities to Include Differentiated Instruction and Interdisciplinary Connections:** *Each learning activity listed must be accompanied by a learning goal of A= Acquiring basic knowledge and skills, M= Making meaning and/or a T= Transfer.*

- Teacher led discussions on safety and hand/power tool usage (A)
- Practice new skillsets on hand and power tools (M)
- Create a safety and operations worksheet outlining the function of given tools (M,T)
- Demonstrate proper tool usage (M,T)
- Student presentations and modeling of hand/power tool usage (M,T)
- Workbook on safety and tools unit such as chapters 5 and 6 in *Auto Upkeep Basic car Care, Maintenance, and Repair* book. (A)