

Anoka-Hennepin Secondary Curriculum Unit Plan

Department:	Career and Technical Education	Course:	Advanced Automotive I: Brakes	Unit 4 Title:	Problem Solving	Grade Level(s):	11-12
Assessed Trimester:		Pacing:		Date Created:		Last Revision Date:	11/2014

Course Understandings: <i>Students will understand:</i> - The policies and procedures that are established and governed by the automotive industry. - The sequential principles and apply theories in mechanics and physics to gain mastery of steering/suspension and four wheel alignment. - How to transfer knowledge of essential laws in physics and mechanics in the application of brake systems in the automotive industry.
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DESIRED RESULTS (Stage 1) - WHAT WE WANT STUDENT TO KNOW AND BE ABLE TO DO?

Established Goals	
Transfer	
Students will be able to independently use their learning to: (product, high order reasoning)	
Meaning	
Unit Understanding(s): Students will understand: - How to apply problem solving and decision making to personal as well as business situations. - How the scientific method is widely used in solving problems in the laboratory as well as the automotive industry.	Essential Question(s): Students will keep considering: - We used the scientific method in science class, how am I going to use it when working on vehicles? - What is a logical sequence of events? - How am I going to use the same problem solving process when working with people as well as cars? - How do my personal problems affect business situations?
Acquisition	
Knowledge - Students will: - Factors that influence solving problems and making decisions - The steps in the Scientific Method and the use in the automotive industry - Appropriate types of measurement for a particular production process and the effects of measurement errors on calculations Reasoning - Students will:	Skills - Students will: - Analyze root causes and formulate, implement, and monitor action plans - Formulate hypotheses and conduct testing. Support conclusions with evidence - Demonstrate general and precision measurement techniques and calculations - Calculate any conversions such as English to metric and fractions to decimals - Evaluate measurement relevancy and accuracy and recognize when a discrepancy exists

Common Misunderstandings • The importance of accurate measurement takes too much time and effort; I can just come close • We should all use the same system of measurement so I don't have to worry about conversions • Recording my test results is a waste of time	Essential new vocabulary •
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