

“QUOTE ME”

TRADE LINK: AUTOMOTIVE REPAIR

TEACHER BACKGROUND

Duration: Two 45-minute classes.

Grade: 7-10

Group size: 3 people (Or individual)

Setting: Indoor

RATIONALE

Auto repair shops are constantly preparing quotes for their potential customers. If you need your car fixed, you will usually shop around for the best price. Nobody wants to pay too much to fix their vehicles. Auto repair shops are usually the ones preparing those quotes and trying to compete for your business. Students will learn how to prepare a quote for someone who requires work to be completed.

METHOD

In this activity, students will utilize knowledge that they have, combined with online research, to prepare a quote for a customer who needs to have service and repairs done on their car. In groups of three people, or individually, students will prepare a quote for automotive maintenance work. The class will be competing for their teacher's business.

If possible, the teacher will begin by brainstorming different potential parts of vehicles, costs associated with having a vehicle, etc. If students don't have cars in the household, they could use a recreational vehicle – skidoo, 4-wheeler, boat, or a bicycle.

CURRICULUM OUTCOMES

Including but not limited to:

Grade 7 Math: Demonstrate an understanding of the addition, subtraction, multiplication and division of decimals (for more than 1-digit divisors or 2-digit multipliers, the use of technology is expected) to solve problems.

Technology 9: Students will examine key industry sectors in New Brunswick.

MATERIALS

- Computer with internet access.

GETTING STARTED

Auto repair and servicing is something that many people require at one point or another. It might be because of an accident or general service, but it may be required at some point down the road. In this activity, students will compete with their bid proposals to complete a repair on an automobile.

THE ACTIVITY (SKILLS FOR SUCCESS)

Students are given the following details to carry out this activity:

Labour cost: \$100/hour.

1. Each group, or student, will research information with the make and model of the car as well as the parts and labour needed. It is the student's job to research online to figure out price, labour time, other costs associated with the work. (Reading)
2. Students will use manufacturers websites to read up on specifications of the materials needed. (Digital)
3. Students will find the best price for parts and record them on a spreadsheet to make estimates on the time needed to fix car. (Numeracy)

4. Prepare a detailed and itemized “work order” or quote for the work needed. (Writing)
5. Present the quote to the teacher as well as the final price, based on the needs of the teacher. (Communication)

BRANCHING OUT (For Teacher)

1. For younger students, have them receive the lists or prices for specific items and prepare invoices for the auto repair.
2. An extension could be to have students write a blog about a successful repair using technical language and research on the process of fixing and repairing cars.

INFORMATION BITE

Automotive mechanics make mechanical repairs and carry out scheduled maintenance on cars, trucks and other motor vehicles using a variety of testing equipment and tools. This process customarily involves the use of computerized diagnostic equipment, such as infrared engine analyzers, spark plug testers and compression gauges. An even greater variety of tools is used to complete the work, including pneumatic wrenches, lathes and grinding machines, jacks and hoists, and electronic service equipment. Besides repairing damaged and defective vehicles, mechanics also conduct routine and scheduled maintenance: balancing and rotating tires, replacing filters, performing oil changes, lubrications and tune-ups, and installing parts such as mufflers, shock absorbers, exhaust pipes, radiators and springs. These repairs and maintenance must be completed to exacting safety standards.

With all of the complex repair and maintenance machinery used and the new technology built into modern automotive components, knowledge of electronics is increasingly desirable in a mechanic. The new developments in engines, transmissions and suspension systems, and the increased use of electronic components are changing the mechanic's job into that of a technician, with more emphasis on vehicle diagnosis.

WHAT ABOUT SKILLS FOR SUCCESS?

As technology changes, a successful automotive mechanic is required to review new research and information to be up-to-date on advancements and new trends in the industry. The ability to conduct research and review documents is an important skill to have mastered.

With many repairs, there are options for the customers to choose. A good mechanic will have used the skill of problem solving to provide customers with the best options for their vehicle.

Since automotive mechanics are required to interact with their customers, communication is a key skill. Good customer service can often be the difference between return customer visits, and never seeing a customer again. Of course, people want to save money when servicing their cars however, a low price often isn't enough – good customer service can be the difference between a client that stops in once and one who returns year after year and refers their friends and family as well.