

# Vehicle Finance

## A few words about the project

This support document for the Grade 12 Essential Mathematics course is designed to be a project spanning several days in order to meet the learning outcome below and its indicators. While the document is not the only way this unit can be covered, it provides several possible approaches as well as vocabulary with which students should become familiar. Purchasing a vehicle is a major expense that few people can avoid. Unlike a house, a vehicle purchase is not an investment. What's more, what people want in a vehicle can change dramatically at different stages in their lives. It is therefore critical for students to learn all the issues involved in acquiring a vehicle.

This project allows students to explore all the factors related to the acquisition and maintenance of a vehicle in a realistic context. Students will use a decision-making process while examining the costs and benefits of each option: purchasing a new or used vehicle with cash, a loan, a lease or on a lease-to-own basis. It is important to focus on the vocabulary, which is often new to students. Each section identifies the key vocabulary and related terms. A list of all this terminology is included in [Appendix A: Lexicon](#).

While this project can be done individually, students are encouraged to work in small groups to promote discussion.

It is important for students to compare and discuss what they learn in each of the sections in order to see the possible differences and allow them to make informed decisions in the future.

The project is divided into eight sections that deal with all of the achievement indicators for this learning outcome. These sections allow students to explore elements related to vehicle finance. Students start by learning about the key aspects of vehicle acquisition. They will have to describe and determine the costs related to owning and using a vehicle such as the various acquisition options, maintenance, repairs, depreciation, fuel consumption and insurance. Lastly, students will be able to justify a decision to acquire a vehicle based on the key elements explored in the project.

The appendices identified in each section include tables and the related worksheets. [Appendix M: Answer Key](#) contains the answers.

## Contents

- 1: Scenarios
- 2.1: Buying a New Vehicle: Cost
- 2.2: Buying a New Vehicle: Loan
- 3: Leasing a Vehicle
- 4: Buying a Used Vehicle
- 5: Leasing to Buy (Own) a Vehicle
- 6.1: Operating Costs: Maintenance and Repair
- 6.2: Operating Costs: Depreciation
- 6.3: Operating Costs: Fuel Consumption
- 7: Insurance Costs
- 8: Scenario Analysis

## Appendices

**Specific Learning Outcome**

12E5.V.1. Solve problems that involve the acquisition, operation, and maintenance of a vehicle when

- buying
- leasing
- leasing to buy

[C, CN, PS, R, T]

**Indicators**

- Describe and explain various options for buying, leasing, or leasing to buy a vehicle.
- Determine costs associated with buying, leasing, or leasing to buy a new or used vehicle.
- Solve, with or without technology, problems that involve the purchase, lease, or lease to purchase of a vehicle.
- Determine costs associated with operating a vehicle, including regular maintenance, repairs, fuel consumption, or depreciation.
- Determine the costs of insuring a vehicle for various uses.
- Justify a decision related to buying, leasing, or leasing to buy a vehicle, based on factors such as personal finances, intended use, maintenance, warranties, mileage, insurance, or safety considerations.