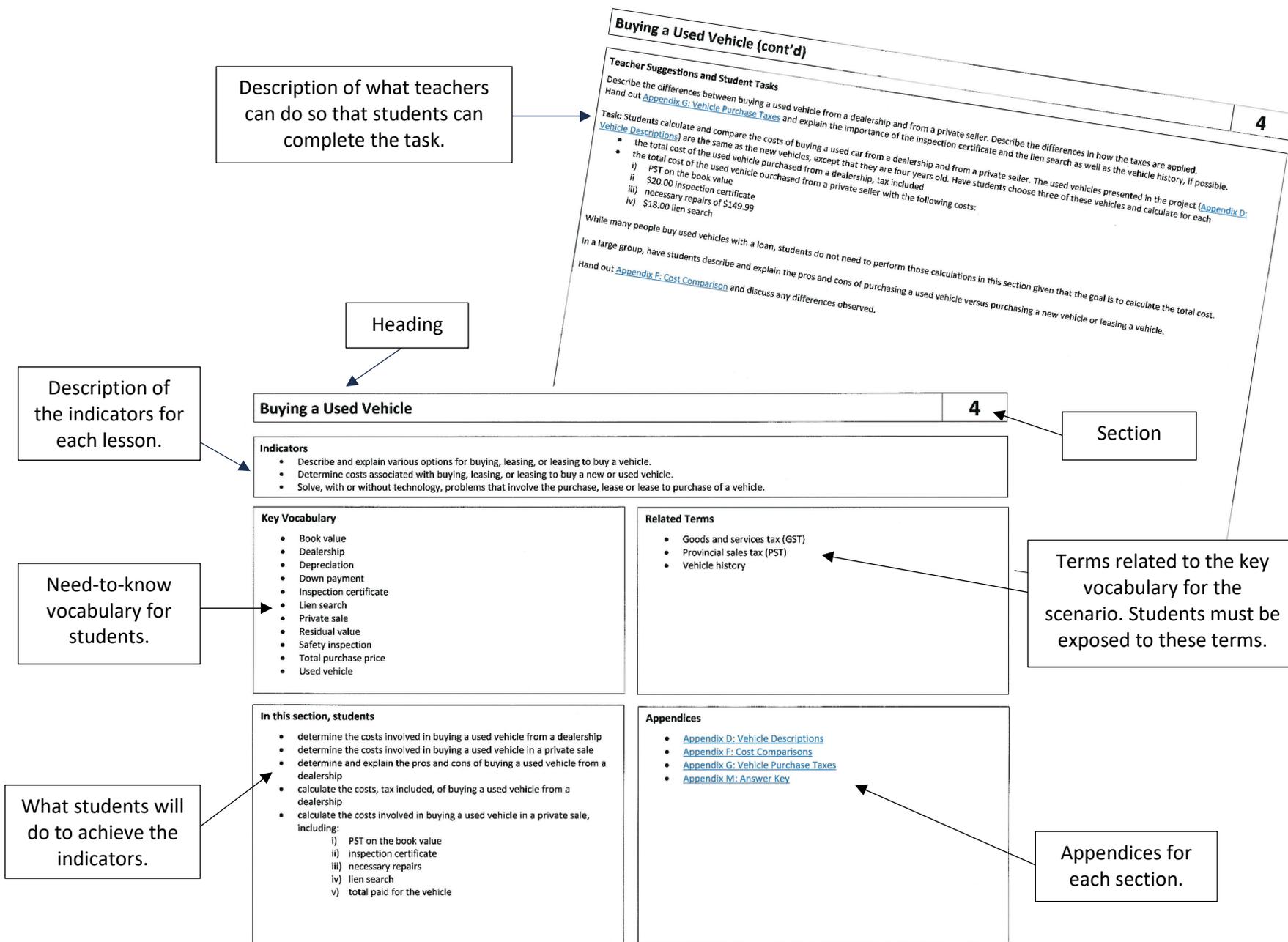


Overview



Scenarios

1

Indicator

- 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.

Key Vocabulary

- Cargo space
- Carrying capacity
- Dealership
- Fuel consumption
- Lease
- Lien search
- Private sale
- Safety certificate
- Safety inspection
- Title search
- Trade-in-value
- Warranty

Related Terms

- Anticipated mileage
- Insurance
- Intended use
- Maintenance cost
- Monthly payment
- Ownership
- Personal finances
- Security
- Trade-in vehicle
- Used vehicle
- Vehicle make
- Vehicle model
- Vehicle type
- Deductible

In this section, students

- Learn about the elements that influence decisions on vehicle type as well as acquisition options.

Appendices

- [Appendix B: Scenarios](#)

Teaching Suggestions and Student Tasks

Purchasing a vehicle involves many decisions that are based on personal situations. Start a discussion with students on things that can influence vehicle choice and type of ownership. Brainstorming may help identify elements such as

- make, model, colour, size, options available
- used vs. new vehicle
- fuel consumption
- reliability
- warranty
- price
- monthly payments for a loan or lease
- purchase vs. lease
- intended use
 - i) all purpose or pleasure
 - ii) city or rural (highway) driving
 - iii) cargo space
 - iv) towing capacity
 - v) carrying capacity
- anticipated mileage
- insurance cost
- trade-in vehicle

Use the opportunity to reinforce the proper terminology (e.g., lease).

Task: Give each student or small group the scenario cards ([Appendix B: Scenarios](#)). For each scenario, have students identify the things that will influence vehicle financial decisions.

In a large group, ask students to share their suggestions and add important points that are not presented in their analysis.

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.

Key Vocabulary

- Cash purchase
- Dealership
- Fuel consumption
- Total purchase price
- Trade-in vehicle
- Trade-in-value
- Warranty
- Down Payment

Related Terms

- Air conditioner excise tax (“air tax”)
- Base price
- Block heater
- Compact vehicle
- Electric vehicle
- Hubcap
- Hybrid vehicle
- Manitoba Public Insurance (MPI)
- Manufacturer’s suggested retail price (MSRP)
- Options package
- Remote starter
- Rim(s)
- Safety feature
- Safety recall
- Steering wheel
- Sticker price
- Sub-compact vehicle
- Sunroof
- Test drive
- Tire eco fee (“tire tax”)
- Towing package
- Transportation and preparation charges

In this section, students

- describe and explain the pros and cons of buying a new car
- calculate the total cost of a new vehicle

Appendices

- [Appendix C: Vehicle Feature Tables](#)
- [Appendix D: Vehicle Descriptions](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

Start a discussion with students on the pros (advantages) and cons (disadvantages) of buying a new vehicle. Advantages could include: warranty, low repair cost, vehicle customization, etc. Also discuss the disadvantages of buying a new vehicle, including high vehicle cost and vehicle depreciation coupled with the purchase of additional depreciation coverage. Brainstorm key things to consider when buying a new car, including

- dealership reputation
- dealership location (e.g., for maintenance, repairs, safety recalls, etc.)
- sticker price
- manufacturer's suggested retail price (MSRP)
- available options and their cost
- warranty
- test drive
- financing plan
- fuel consumption
- safety features

Task A: To help students familiarize themselves with the various available options, distribute [Appendix C: Vehicle Features Table](#). Have students indicate which options are important to them, individually or in small groups. Students should identify and justify at least five (5) options.

They can then share their options and justifications in a large group session. Note: Options typically come in packages and are not always available individually. These additions to the base price have an associated cost. Discuss how the total vehicle price can be reduced. Here are a few examples:

- buying a smaller vehicle
- negotiating options packages
- time of year or special sale

Present and explain the calculations involved in the purchase of a new vehicle to students, including

- base price
- options package
- transportation and preparation charges
- air conditioner excise tax ("air tax")
- tire eco fee ("tire tax")
- vehicle trade-in value
- taxes (PST and GST)

Task B: Distribute the vehicle sheets ([Appendix D: Vehicle Descriptions](#)). Have students calculate the total price, including taxes, for at least three new vehicles and compare them. For easier comparison, have students use a trade-in value of \$3500.

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.

Key Vocabulary

- Amortization table
- Principal
- Credit purchase
- Dealership
- Equity
- Financing a vehicle
- Loan
- Monthly payment
- Outstanding balance
- Extended warranty

Related Terms

- Collision
- Co-signer
- Credit score
- Financial institution
- Manitoba Public Insurance (MPI)
- On approved credit (OAC)
- Write-off

In this section, students

- calculate the costs associated with a vehicle loan
 - i) monthly payment
 - ii) interest portion of the monthly payment
 - iii) principal portion of the monthly payment
 - iv) outstanding balance
 - v) total interest paid
- learn how to reduce the monthly payment amount
- learn how to reduce the amount of interest paid

Appendices

- [Appendix D: Vehicle Descriptions](#)
- [Appendix E: Amortization Table](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

Present and explain the calculations involved in a new vehicle purchase requiring a loan, including

- down payment
- monthly payment
- interest portion of the monthly payment
- principal portion of the monthly payment
- outstanding balance
- total amount paid
- total interest paid
- 4-month amortization table

Tell students that the interest rate shown in advertisements is not necessarily the interest rate offered to younger buyers with no credit score. Ads often state that the interest rate is available “on approved credit (OAC),” which is directly related to a person’s credit score. Even with a co-signer, a loan’s interest rate can be higher.

The following task allows students to compare the impact of different interest rates and amortization periods. Hand out [Appendix D: Vehicle Descriptions](#) and [Appendix E: Amortization Table](#).

Task: Have students calculate and compare the monthly payment, the total loan cost paid, the interest charges, and the total paid for a new vehicle with the following three loans, using a down payment of \$1000:

- 1) A loan with an interest rate of 3% over 6 years.
- 2) A loan with an interest rate of 3% over 3 years.
- 3) A loan with an interest rate of 6% over 3 years.

Have each student or small group make an amortization table of a least four (4) periods for one of the above loans. This should be done by hand with a calculator and then checked using technology.

In a large group, compare the effect of the different interest rates and amortization periods and discuss how to lower the monthly and interest payments.

* Note: A loan must be paid in full, even if the vehicle’s value is less than the outstanding loan balance. For instance, an owner selling the vehicle can receive an amount lower than the outstanding balance on the loan. Or, in the case of a collision resulting in a write-off, the amount the owner receives from Manitoba Public Insurance (MPI) may be less than the outstanding loan balance. In both situations, the owner must continue to pay the loan even if he is no longer able to use the vehicle.

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.

Key Vocabulary

- Dealership
- Depreciation
- Down payment
- Lease
- Leasing fees
- Monthly payment
- Residual value

Related Terms

- Break the lease
- Contract (lease)
- Excessive wear and tear
- Goods and services tax (GST)
- Ownership
- Provincial sales tax (PST)
- Windshield

In this section, students

- learn about who is responsible for maintenance and repairs
- identify the costs involved in a lease
- describe and explain the pros and cons of leasing a vehicle
- calculate lease elements such as
 - i) total monthly loan payment
 - ii) total of monthly loan payments
 - iii) total lease cost
 - iv) residual value
 - v) purchase cost of the vehicle at lease end
 - vi) total paid for a vehicle, including the lease cost

Appendices

- [Appendix D: Vehicle Descriptions](#)
- [Appendix F: Cost Comparison](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

Introduce the leasing concept. Students need to understand that monthly payments are for using the vehicle and that its ownership remains with the dealership. Describe leasing details, including

- lease term
- financing charges
- allowed mileage without penalty
- cost of additional mileage
- monthly payment
- responsibility for maintenance and repairs
- residual value
- additional costs for excessive wear and tear
- breaking the lease

Discuss the pros and cons of leasing a vehicle with students. It is important for students to understand the difference between the maintenance and repairs that are the responsibility of the person leasing the vehicle, and the repairs covered by the dealership. Distribute the [Appendix D: Vehicle Descriptions](#) sheets.

Task A: Have students calculate the leasing costs for three new vehicles, including

- total monthly payments
- total cost of the lease, including monthly payments and other financial charges
- the total amount paid for the lease if the vehicle has
 - i) an accumulated mileage of 66 000 kilometres
 - ii) a stone chip in the windshield and worn tires (charge of \$450 for excessive wear and tear)
- the residual value
- purchase cost of the vehicle at lease end
- total paid for the vehicle if they purchase it at the end of the lease (including leasing cost)

N.B: Common errors

- Forgetting to add the two taxes (PST and GST) to the monthly payment
- Forgetting to calculate the vehicle's residual value for the purchase price **before** adding taxes.

In a large group, have students describe and explain the pros and cons of leasing.

** Note: Independent (self-employed) workers can claim monthly lease payments on their personal taxes if the vehicle is used for work.*

Hand out [Appendix F: Cost Comparison](#).

Task B: Have students analyze and write down what they observe. Then start a discussion, making sure to highlight the following aspects:

- In the long term, purchasing a new vehicle with a loan is cheaper than purchasing the same vehicle at lease-end.
- In the short term, the monthly payments of a lease are lower than monthly loan payments.
- A cash purchase is the cheapest option given that there are no interest payments.

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.

Key Vocabulary

- Book value
- Dealership
- Depreciation
- Down payment
- Inspection certificate
- Lien search
- Private sale
- Residual value
- Safety inspection
- Total purchase price
- Used vehicle

Related Terms

- Goods and services tax (GST)
- Provincial sales tax (PST)
- Vehicle history

In this section, students

- determine the costs involved in buying a used vehicle from a dealership
- determine the costs involved in buying a used vehicle in a private sale
- determine and explain the pros and cons of buying a used vehicle from a dealership
- calculate the costs, tax included, of buying a used vehicle from a dealership
- calculate the costs involved in buying a used vehicle in a private sale, including:
 - i) PST on the book value
 - ii) inspection certificate
 - iii) necessary repairs
 - iv) lien search
 - v) total paid for the vehicle

Appendices

- [Appendix D: Vehicle Descriptions](#)
- [Appendix F: Cost Comparisons](#)
- [Appendix G: Vehicle Purchase Taxes](#)
- [Appendix M: Answer Key](#)

Teacher Suggestions and Student Tasks

Describe the differences between buying a used vehicle from a dealership and from a private seller. Describe the differences in how the taxes are applied. Hand out [Appendix G: Vehicle Purchase Taxes](#) and explain the importance of the inspection certificate and the lien search as well as the vehicle history, if possible.

Task: Students calculate and compare the costs of buying a used car from a dealership and from a private seller. The used vehicles presented in the project ([Appendix D: Vehicle Descriptions](#)) are the same as the new vehicles, except that they are four years old. Have students choose three of these vehicles and calculate for each

- the total cost of the used vehicle purchased from a dealership, tax included
- the total cost of the used vehicle purchased from a private seller with the following costs:
 - i) PST on the book value
 - ii) \$20.00 inspection certificate
 - iii) necessary repairs of \$149.99
 - iv) \$18.00 lien search

While many people buy used vehicles with a loan, students do not need to perform those calculations in this section given that the goal is to calculate the total cost.

In a large group, have students describe and explain the pros and cons of purchasing a used vehicle versus purchasing a new vehicle or leasing a vehicle.

Hand out [Appendix F: Cost Comparison](#) and discuss any differences observed.

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.

Key Vocabulary

- Credit score
- Dealership
- End-of-lease administration fee
- Financing charges
- Initial administrative fee
- Leasing to buy

Related Terms

- Bankruptcy
- Biweekly payment
- Finance company
- Financial institution
- Goods and services tax (GST)
- Lease
- Maintenance
- Ownership
- Possession
- Provincial sales tax (PST)
- Vehicle history
- Wear and tear
- Weekly payment

In this section, students

- determine the reasons why someone might choose leasing to buy a vehicle
- calculate the costs involved in a lease to buy
- describe and explain the pros and cons of leasing to buy

Appendices

- [Appendix D: Vehicle Descriptions](#)
- [Appendix F: Cost Comparisons](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

Present the information below to students to discuss the implications of leasing to buy and why few people choose this option.

Some used vehicle dealerships offer leasing to buy to people with a poor credit score who cannot get a loan from a financial institution. The conditions for a lease-to-buy contract are having an official identity document as well as a proof of stable income.

With a lease to buy, the person signs a contract with a financing company associated with the dealership. The vehicle is the property of the financing company until the end of the lease. Note that the vehicle only belongs to you after you pay the initial administration fee, all of your payments and the end-of-lease administration fees. A lease to buy contract usually has a 1 to 3 year term with weekly or biweekly payments. If a payment is late, the financing company does not indicate the delay on the credit score, which is therefore not affected. However, an administrative penalty can be imposed on the individual, or the financing company may repossess the vehicle. In that case, the individual receives no money back.

Unlike a lease, maintenance and repairs are the responsibility of the individual and not the dealership (even while the latter retains ownership of the vehicle). Because the vehicles available for leasing to buy often have more wear and tear and mileage, maintenance and repair costs can add significantly to the total cost of the vehicle. It is therefore important to check a vehicle's history before signing a lease-to-buy contract.

While the initial administration fee is often a minimal amount, the payments are high enough and frequent enough that the total amount paid for a vehicle is usually a great deal more than the purchase amount paid in cash or via a loan for the same vehicle. That is why so few people choose the lease-to-buy option.

Task: Have students calculate the costs associated with leasing to buy, using an initial administration fee of \$395 and a lease-end administration fee of \$125, with biweekly payments. This information is presented in [Appendix D: Vehicle Descriptions](#). Have students choose three used vehicles and calculate for each

- the monthly payment, tax included
- total cost of the lease to buy, including fees

In a large group, have students describe and explain the pros and cons of leasing to buy.

Distribute [Appendix F: Cost Comparison](#) and have students analyze and write down what they observe, such as the fact that leasing to buy is more expensive than a purchase with cash or via a loan of the same used vehicle.

Indicator

- Determine costs associated with operating a vehicle, including regular maintenance, repairs, fuel consumption, or depreciation.

Key Vocabulary

- Depreciation
- Fuel consumption
- Labour
- Maintenance
- Material(s)
- Repair
- Vehicle tune-up

Related Terms

- Air filter
- Antifreeze
- Brake(s)
- Coolant
- Cooling system
- Diagnostic test
- Exhaust pipe
- Exhaust system (exhaust pipe and muffler)
- Fan belt
- Fluid level
- Hourly rate
- Mechanic
- Muffler
- Oil change
- Radiator
- Service station
- Shocks
- Wheel alignment check
- Windshield wiper blade

In this section, students

- calculate the costs involved in vehicle maintenance and repairs

Appendices

- [Appendix H: Maintenance and Repairs](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

Explain the various costs of operating a vehicle: maintenance, repair, depreciation, and fuel consumption.

Brainstorm with students to identify examples of regular maintenance and repairs, including

- Vehicle tune-up
- Oil change
- Antifreeze, coolant, etc. check
- Fan belt inspection and replacement
- Windshield wiper replacement
- Air filter replacement
- Light replacement
- Winter tire installation and wheel alignment
- Brake replacement
- Exhaust system (exhaust pipe and muffler) check
- Shock replacement
- Radiator repair
- etc.

Here are three things to consider when calculating maintenance and repair costs

- 1) Buy multiples of some parts (e.g., windshield wipers, oil, tires)
- 2) Convert labour time from minutes into parts of an hour
- 3) Calculate both taxes (PST and GST) on the total cost, including labour

Task: Hand out [Appendix H: Maintenance and Repairs](#). Have students calculate the maintenance and repair costs for the various scenarios.

In a large group, discuss the importance of regular maintenance and the cost variations between different garages.

Indicator

- Determine costs associated with operating a vehicle, including regular maintenance, repairs, fuel consumption, or depreciation.

Key Vocabulary

- Depreciation
- Depreciation rate
- Residual value

Related Terms

- Manitoba Public Insurance (MPI)
- Original value of the vehicle
- Trade-in-value
- Vehicle condition
- Vehicle make
- Vehicle model
- Write-off

In this section, students

- calculate a vehicle's depreciation amount
- calculate the residual value

Appendices

- [Appendix I: Depreciation](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

Explain the concept of depreciation, including the age of the vehicle, the vehicle condition, the vehicle make, and the vehicle model. While the value lost through depreciation is not money paid, it is an amount that cannot be counted in the asset's value.

Task: Based on the total purchase cost (before taxes), have students determine a vehicle's depreciation during the first three years for three different vehicles ([Appendix I: Depreciation](#)). The depreciation rate is 20% the first year and 15% for subsequent years. Have the students calculate

- i) the depreciation amount at the end of each year
- ii) the vehicle's residual cost at the end of each year
- iii) the total depreciation amount after three years

It is important for students to be able to distinguish between depreciation amount and residual value.

Indicator

- Determine costs associated with operating a vehicle, including regular maintenance, repairs, fuel consumption, or depreciation.

Key Vocabulary

- City fuel consumption rate
- Distance travelled in kilometres
- Fuel amount
- Fuel consumption
- Fuel consumption rate
- Fuel economy
- Fuel tank
- High fuel consumption
- Highway fuel consumption rate
- Litre (L)
- Low fuel consumption
- Odometer

Related Terms

- Diesel
- Gas
- Idle
- Model
- Traffic jam
- Vehicle type

In this section, students

- learn to differentiate between low and high fuel consumption
- recognize factors that impact fuel consumption

Appendices

- [Appendix J: Fuel Consumption](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

The word “fuel” includes gas and diesel.

Start a discussion with students on fuel and the fact that it is one of the main expenses related to operating a vehicle. Different vehicles require different amounts of fuel to travel the same distance. Brainstorm with students on the different elements that affect the fuel consumption rate, including

- vehicle type
- number of times the fuel tank must be filled for a given distance (fuel tank capacity)
- city or highway driving
- using air conditioning or heat
- idling time (rush hour traffic congestion, winter, while waiting, etc.)
- how you drive your vehicle
- types of optional equipment installed
- vehicle condition
- weight of vehicle and its contents

Note that a vehicle consumes more fuel when it is idling at a red light and while accelerating. Ensure that students can determine the best fuel economy and know that fuel consumption is higher for city driving than on the highway.

Fuel consumption (FC) is based on the number of litres a vehicle uses to travel 100 km. It is calculated in L/100 km.

$$FC = \frac{\text{fuel used in litres}}{\text{distance in km}} \times 100$$

Make sure that students can isolate each variable in this formula.

N.B.: Common errors

- forgetting to convert cents to dollars (100.3¢/Litre = \$1.003/Litre and explaining why the price is written in cents rather than dollars).

Task: Have students answer the questions on fuel consumption ([Appendix J: Fuel Consumption](#)).

In a large group, have students share their opinions about the differences in fuel consumption cost depending on vehicle type.

Note that electric cars are not included in [Appendix J: Fuel Consumption](#) because they do not use fuel.

Indicator

- Determine the costs of insuring a vehicle for various uses.

Key Vocabulary

- Additional coverage
- All purpose vehicle
- Autopac
- Risk of loss
- Compensation claim
- Damage(s)
- Deductible
- Demerit
- Driver safety rating
- Driver Safety Rating Scale
- Driver's licence
- Driving record
- Insurance broker
- Insurance company
- Insurance policy
- Insurance premium
- Licence plate
- Loss of use
- Manitoba Public Insurance (MPI)
- New car insurance
- Optional insurance
- Passenger vehicle
- Payment terms
- Pleasure vehicle
- Rebate
- Third-party liability
- Vehicle make
- Vehicle model
- Vehicle type

Related Terms

- At-fault accident
- Book value
- Compact vehicle
- Documentation fee
- Excess Value (coverage)
- Immobilizer
- Lay-Up (coverage)
- No-fault accident
- Payment terms
- To be at fault
- Vehicle operation
- Write-off

In this section, students

- determine the factors that affect insurance costs
- understand how to reduce insurance costs

Appendices

- [Appendix K: Insurance–Service Stations](#)
- [Appendix L: Insurance–Analysis](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

Start a discussion with students about the role of Manitoba Public Insurance (MPI). Brainstorm on the different factors that affect insurance costs, including

- vehicle age
- vehicle make and model
- vehicle type
- vehicle use
- where the owner lives
- driving record
- deductible amount
- third-party liability amount

Note that the following factors do not affect insurance costs:

- terms of payment (there is an administrative fee when you do not make a lump-sum (single) payment)
- vehicle colour
- no-fault collision
- owner's age (although the owner's history can affect the cost, the biological age is not a factor)

Explain optional insurance coverage, including

- Loss of use
- New vehicle protection
- Excess Value coverage for a vehicle worth more than \$50 000

Task: Prepare the eight (A to H) study stations ([Appendix K: Insurance–Stations](#)). Individually or in small groups, have the students compare each pair of cards at each station and complete [Appendix L: Insurance–Analysis](#). Each pair of cards contains insurance information for a specific vehicle. All of the information is identical except for one detail.

In a large group, have students discuss the factors that affect insurance cost and how to reduce the amount of insurance paid.

N.B.: The exploration work can also be done with the insurance calculator on the Manitoba Public Insurance (MPI) website.

Indicator:

- 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.

Key Vocabulary

- Cargo space
- Carrying capacity
- Dealership
- Fuel consumption
- Lease
- Leasing to buy
- Lien search
- Private sale
- Safety certificate
- Safety inspection
- Trade-in-value
- Warranty

Related Terms

- Anticipated mileage
- Insurance
- Intended use
- Maintenance cost
- Monthly payment
- New vehicle
- Reliability
- Security
- Trade-in vehicle
- Used vehicle
- Vehicle make
- Vehicle model
- Vehicle type
- Warranty

In this section, students

- justify a decision related to buying, leasing, or leasing to buy a vehicle

Appendices

- [Appendix B: Scenarios](#)
- [Appendix M: Answer Key](#)

Teaching Suggestions and Student Tasks

Review the various factors that influence the decision to buy, lease, or lease to buy a vehicle, including

- acquisition options
 - i) purchasing a new vehicle
 - ii) purchasing a used vehicle
 - iii) leasing a vehicle
 - iv) leasing to buy a vehicle
- intended use
- maintenance and repair costs
- fuel consumption
- insurance cost

Explain that it is always necessary to reassess our personal finances to make the best decision at that time.

Task: Distribute the scenario cards ([Appendix B: Scenarios](#)). Individually or in small groups, have students link the scenarios to a suggested vehicle acquisition option and vehicle type. Have them justify their decisions.

While suggested answers are provided in [Appendix M: Answer Key](#), students may give a good explanation in defence of a different answer. It is important for students to develop the habit of justifying a decision based on the factors above.