

Buying a Car

Ms. Vashchyshyn

Workplace and Apprenticeship Mathematics 10

St. Joseph High School

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Part 1: Finding a job

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Finding a Job

During this project, you will develop a detailed and realistic plan to finance a car of your choice. Your goal will be to buy it within 12 months (either in cash or by taking out a loan). Given that you need a monthly income to buy and own a car, you will use the Internet to **find a part-time job** that interests you, then estimate your monthly gross and net salary. Finally, you will estimate how much money you will be able to save in one year.

Before starting your research, reflect on, then answer the following questions:

- a) What responsibilities, besides school, do you have during the school year (e.g., homework, dance practice, hockey practice, babysitting...)? How many hours does this leave you to work, per week, **during the school year**? Be reasonable and realistic; 35 hours is the maximum.

- b) What responsibilities do you have during the summer (e.g., babysitting, dance practice...)? How many hours does this leave you to work, per week, **during the summer**? Be reasonable and realistic; 40 hours is the maximum.

- c) What type of part-time job interests you, and why? E.g., would you like to work in a restaurant as a server or a chef, sell goods in retail, be a tutor, or something else? (*Remember: The question is not what career you would like after you graduate, but rather what kind of part-time job you might like to have for a few years during high school.*)

d) What skills do you have that might be useful in the workplace? Give an example for each. (Below is a partial list of skills that are important in most workplaces:

teamwork
strong communication skills
punctuality
ability to resolve conflicts

good time management
flexibility, ability to learn quickly
organisation
problem solving skills



It's now time to **find a part-time job** that fits your lifestyle and is aligned with your skills. Of course, the job must be **in Saskatoon**. Use one or more of the following websites during your search:

- SaskatoonJobShop.ca
- GlassDoor.ca
- Workopolis.com
- Monster.ca

Spend some time exploring these websites to look for jobs that really interest you and for which you are qualified. The most important question you should ask yourself when considering one of these jobs is: *Could I really see myself working here for at least two years?*

Once you have chosen the **two jobs** that interest you the most, **print the postings for each job** and respond to the questions on the following page for each one.

Note: If the hourly wage is not given, assume that it is the current minimum wage in Saskatchewan: **\$10.96 per hour**.

Job 1

Company (e.g., McDonalds): _____

Position (e.g., chef): _____

Hourly wage: _____

What are the responsibilities, and what are the necessary qualifications (skills, experiences, certificates, etc.) for this job?

Are there any benefits in addition to the salary (e.g., 15% discount on food)?

In your opinion, what are the advantages and disadvantages of this job?

In your view, why are you a strong candidate for this job?

Job 2

Company (e.g., McDonalds): _____

Position (e.g., cashier): _____

Hourly wage: _____

What are the responsibilities, and what are the necessary qualifications (skills, experiences, certificates, etc.) for this job?

Are there any benefits in addition to the salary (e.g., 15% discount on food)?

In your opinion, what are the advantages and disadvantages of this job?

In your view, why are you a strong candidate for this job?

Well done, you've excelled both of your interviews! It's now time to **choose one of the two jobs**. Which is the better choice for you? Why?

You are now going to estimate how much money you would earn at this job in one year.

a) First, determine your annual gross salary:


Hours / week (school year): _____ Hours / week (summer): _____

Hourly wage: _____

Annual gross salary:

b) Use the website www.paymentevolution.com/payrollcalculator to determine your weekly deductions. Click on "Advanced Options." Fill in the boxes as shown below, using your own hourly salary ("*pay rate*") and work hours ("*standard hours/week*"):

Enter details

Pay period ending date: 2017-12-16 

Province or Territory of employment: Saskatchewan

Pay period: 52 - Weekly

Pay Rate: GROSS amount before taxes

Pay Rate Unit: Hourly Rate

Standard Hours / Week:

Advanced Options ▾

Tax Exempt: No

EI Exempt: No

CPP Exempt: Yes

Total claim from Federal TD1: 11635

Total claim from Provincial TD1: 16065

Note: If your annual gross salary will be less than **\$16 065**, you will not pay provincial income taxes this year. If your gross annual salary will be less than **\$11 635**, you will not pay provincial *or* federal taxes this year.

c) Fill out your “paycheck” (below) to determine your weekly net salary **during the school year (44 weeks)**:

Hours and gross salary					
<i>Hourly wage</i>	<i>Hours (per week)</i>			<i>Weekly gross salary</i>	
Deductions					
<i>Description</i>	<i>Federal</i>	<i>Provincial</i>	<i>CPP</i>	<i>EI (1,63 %)</i>	<i>Total</i>
<i>Amount</i>			0 \$		
				Weekly net salary	

Fill out your “paycheck” (below) to determine your weekly net salary **during the summer (8 weeks)**:

Hours and gross salary					
<i>Hourly wage</i>	<i>Hours (per week)</i>			<i>Weekly gross salary</i>	
Deductions					
<i>Description</i>	<i>Federal</i>	<i>Provincial</i>	<i>CPP</i>	<i>EI (1,63 %)</i>	<i>Total</i>
<i>Amount</i>			0 \$		
				Weekly net salary	

d) Determine your **annual net salary**. Show your work.

- e) Now, think about your spending. What are your **necessary** expenses during the average school month (e.g., cell phone bill, bus tickets)? All in all, how much do your necessary expenses represent (in \$)?

Now, think about your spending. What are your **discretionary** (optional) expenses during the average school month (e.g., movie tickets, music, Starbucks)? All in all, how much do your discretionary expenses represent (in \$)?

Make an estimate: **How much money do you spend during the average school month, without a car?** Could you reduce your spending in order to save money for a car? Refer to your responses above in making your estimate.

- f) **Net savings:** Based on your estimated annual net salary and monthly expenses, **determine how much money you will save in one year** (approximately) if you work at your chosen job for 1 year. (You will use this money to finance a car!) **If you will also receive an allowance from your parents**, add it to your net salary to get a more accurate estimate. Show your work.

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Part 2: Finding and Financing a Car

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Finding and Financing a Car

Now that you have a source of income, it's time to **find a car**. You will use the Internet to research new and used cars, ultimately choosing the one that is best suited to your needs, lifestyle, and budget. Once you have chosen a car, you will decide **how to finance it**.

Remember that the goal is to make a plan that is as realistic as possible—accordingly, you will not be able to buy a Lamborghini... yet.



Before you start searching for a car, reflect on the following questions:

- Will you need to transport large loads? _____
- Will you need to drive more than 2 people at a time in the car? _____
- Will you need 4-wheel drive? _____
- Will you need to drive long distances? _____
- Will you have a lot of money for maintenance? _____

Based on your responses to the previous questions, **describe a car that you could finance and could see yourself driving for the next 2-5 years of school**. Be realistic and as precise as you can. You could mention, among other aspects: type of car (*sedan, coupe, hatchback, convertible, truck, SUV...*), make, model, year, accessories (*Bluetooth, CD player, seated heats, remote start, rear camera...*), reliability, colour, etc. **Explain why you think this car would suit your needs and lifestyle.**



Having thought about what kind of car you would like to drive for the next 2-5 years, you are now going to **look for a car that you could finance after 1 year of work** (either by paying cash or by taking out a loan). The cars and sellers must be from **Saskatoon**.

Use one or more of the following websites in your search:

- Kijiji.ca
- AutoTrader.ca
- Auto123.com

You could also look for new cars on dealership websites, such as Mazda.ca.

Spend some time exploring these websites to find cars that interest you and that you could finance in 4 years or less. Don't forget to ask yourself the following questions: Would I *really* buy this car in real life? Would I like to drive this car every day for several years?

Other useful websites

- To find the **market price** of a car: www.autotrader.ca/valuations. Click on "I'm buying."
- To find the **insurance rates** for a car: www.sgi.sk.ca/online_services/rate/
- To estimate **loan payments**: www.cibc.com/ca/loans/calculators/car-loan-calculator.html
- For **car reviews** (reliability, safety, performance, and more): www.cargurus.com/Cars/autos/
- To look into possible **defects and recalls**: www.carcomplaints.com

Choose the **two cars** that interest you the most. **Print the postings for each car** and answer the questions on the following pages.

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Car no. 1

Make: _____ Model: _____ Year: _____

New or used? _____ Mileage: _____

Price: _____ Average market price: _____

If new, price with tax (11%; show your work):

Accessories (e.g., Bluetooth, CD player, heated seats, remote start...):

What are the **advantages and disadvantages** of the car (you could do some additional research, for example by using the site www.cargurus.com/Cars/autos/) ? Why would this be a good choice for you, taking into account your budget, lifestyle, and needs?

Insurance costs per month (with Safety Rating 0): _____

Initial down payment of 10% (show your work) :

Monthly payments with a 4,5 % interest rate (use the website www.cibc.com/ca/loans/calculators/car-loan-calculator.html):

Length of loan	Monthly payment (\$) with down payment of 10%	Total interest costs (\$)
1 year		
2 years		
3 years		
4 years		

Workplace and Apprenticeship 10

Car no. 2

Make: _____ Model: _____ Year: _____

New or used? _____ Mileage: _____

Price: _____ Average market price: _____

If new, price with tax (11%; show your work):

Accessories (e.g., Bluetooth, CD player, heated seats, remote start...):

What are the **advantages and disadvantages** of the car (you could do some additional research, for example by using the site www.cargurus.com/Cars/autos/) ? Why would this be a good choice for you, taking into account your budget, lifestyle, and and needs?

Insurance costs per month (with Safety Rating 0): _____

Initial down payment of 10% (show your work) :

Monthly payments with a 4,5 % interest rate (use the website www.cibc.com/ca/loans/calculators/car-loan-calculator.html):

Length of loan	Monthly payment (\$) with down payment of 10%	Total interest costs (\$)
1 year		
2 years		
3 years		
4 years		

Choose one car that interests you the most between these two. Which would be a better choice for you? Why?

Now, you're going to decide how to **finance the chosen car**.

Price of the car (with taxes, if new): _____

Net savings after one year of work: _____

Monthly net savings during the school year: _____

Are you going to pay cash for the car (pay in full) or are you going to take out a loan? If you're taking out a loan,

- a) what percentage of the price are you going to pay as a down payment and
- b) what dollar amount does this represent?

Explain your choice clearly and show your work if there are calculations to do.

If you are taking out a loan: What **term length** will you choose and what will be the **monthly payments**? Explain your choice. Finally, what are the **total interest costs**?

Taking into account insurance and loan payments, determine your a) **total auto payments** per month and b) how much money you will have left **after all of your expenses**. Show your work.

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Reflection

Once you have completed the two parts of the project (finding a job, finding and financing a car), take some time to reflect on the work that you have done and to answer the questions below in a few paragraphs. There are no “good” or “bad” answers to these questions—I’m looking for your honest impressions and a response that reveals critical reflection. Feel free to add any other comments you like.

- In your opinion, is your plan reasonable and realistic? (e.g., Does your job give you enough time to do your homework and to relax? Does your car financing plan leave you enough money for maintenance and for unexpected expenses?)
- What surprised you during your research?
- Are you planning, or were planning on looking for a job to finance a car? Why or why not, and what impact did this project have (if any) on your plans or decisions?
- In your opinion, is buying a car worth the trouble? Explain why or why not.

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Checkpoint Rubric: Finding a Job

Expectations not met	Expectations	Expectations met or exceeded
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Research

The student has chosen **two jobs in Saskatoon** that interest him or her the most.

Analysis

For the two chosen jobs, the student describes the salary, the responsibilities, the necessary qualifications, and the (perceived) advantages and disadvantages. The student explains why they are a strong candidate for the positions. Finally, the student chooses one of the two jobs and explains why it is the best choice for them.

Gross and net salary (WA10.11)

The student estimates, by taking into account their other responsibilities, **how many hours per week** they could work during the school year and during the summer. The student then determines their gross and net salary.
All work is shown.

Net savings

Referring to their estimated net salary and expenses, the student estimates how much money they will save in a year while working at the chosen job. **All work is shown.**

Learning outcomes:

WA10.11: Demonstrate understanding of income, including wages, salary, gross pay, and net pay.

Checkpoint Rubric: Finding and Financing a Car

Expectations not met	Expectations	Expectations met or exceeded
	<p style="text-align: center;">Insurance costs</p> <p style="text-align: center;">For both of the two chosen cars, the student uses the SGI website to determine the insurance costs per month.</p>	
	<p style="text-align: center;">Loan payments and costs</p> <p style="text-align: center;">For both of the two chosen cars, the student determines the loan payments and costs: i.e., a 10% down payment, the monthly payment for various term lengths (1- 4 years) et the total interest costs.</p>	
	<p style="text-align: center;">Financing</p> <p style="text-align: center;">The student explains which car, between the two, would be the best choice for them. The student then explains how they plan to finance it: either by paying in full or by taking out a loan. If the student plans on taking out a loan, they decide on a down payment and a term length, justifying all choices.</p>	
	<p style="text-align: center;">Monthly expenses</p> <p style="text-align: center;">Taking into account insurance costs and loan payments (if applicable), the student determines the total monthly vehicle expenses and their monthly savings after all expenses.</p>	

Checkpoint Rubric: Reflection

Expectations not met	Expectations	Expectations met or exceeded
	<p style="text-align: center;">The thorough responses to the given questions reveal in-depth reflection. The student recognizes whether or not their plan is realistic and explains why (or why not).</p>	