# FINANCIAL LITERACY - UNIT PLAN 

## Overview

| Subject: | Mathematics | Topic: | Financial Literacy |
| :---: | :---: | :---: | :---: |
| Unit Overview: | This unit explores the concepts of financial literacy including the specifics of earning, spending, and saving. Students will also reflect on how their personal values impact the consumer decisions they make. All lessons will lead to a culminating project. |  |  |
| Ontario Curriculum Overall Expectations: | Grade 6 <br> F1.1 describe can be used to <br> F1.2 identify d outline some <br> F1.3 identify a financial goals <br> Grade 7 <br> F1.1 identify a dollars and vic <br> F1.2 identify a planning for and <br> F1.3 create, tr goals for vario <br> F1.4 identify v making, and d | tages s als, incl hat may and co <br> sources <br> ets desi <br> factors might | methods of payment that <br> ing and saving goals, and terfere with reaching <br> gn currencies to Canadian <br> tion that can help with <br> eet longer-term financial <br> fluence financial decision |
| Unit Duration: | 2-3 weeks |  |  |
| Grade: | 6-7 |  |  |

## FINANCIAL LITERACY UNIT PLAN - LESSON BREAKDOWN

Lesson 1: Introduction $\rightarrow$ key terminology, currencies, and exchange rates
Lessons 2-3: Budgets (what they are, how to create and maintain, fixed income/variable income)
Lesson 4: Methods of payment (debit, credit-- advantages and disadvantages)
Lesson 5-6: Simple interest (grade 7)
Lessons 7-9: Saving and Investing
Lesson 10: Active consumer (learn deceptive advertising techniques)
Culminating Project: Building a client's investment portfolio

## Lesson Plan (lesson 1)

Lesson Topic: Introduction to unit (key terminology and exchange rates)

Objectives: Students will learn to calculate exchange rates Date: and spend according to their budget

## Materials/Resources

Key Terms Sheet
Activity Sheet - Online Shopping

## Instructional Delivery

Minds On: Begin lesson by posing questions such as, "what is money?" "How is money valued?" "Do all countries use the same currency?" Engage students in a class discussion and lead them to a discussion centered around currency. Explain that the term currency refers to the money used in a specific country (example, in Canada, we use the Canadian dollar to make purchases; in Japan, people use yen). Ask students: how is the value of the Canadian dollar determined? Explain that the value of our dollar rises or falls every day according to demand $\rightarrow$ the more people want to buy Canadian goods, the more our dollar is valued.

Activity: Distribute Key Terms sheet for students to glue in their notebooks/keep in binders. As you go through the key terms throughout the unit, students can follow along with their key terms sheet.

Introduce the concept of currencies and exchange rates and how to calculate exchange rates.
Ask students: What's an exchange rate? An exchange rate shows the price of one currency compared to another. For instance, 1 Canadian dollar could be worth 0.67 euros, and 1 euro would be worth 1.49 Canadian dollars. If you have a 20 Canadian dollar bill, you could exchange it for 13.41 euros.

To calculate the value in Canadian dollars of any amount in another currency, you divide the foreign currency price with the corresponding exchange rate.

- For example, if the currency converter says that the exchange for the euro is CAD $1=E U R 0.67$, and you want to know how much 45 euros is worth in Canadian dollars, do the following calculation:

EUR $45 \div 0.67$ (exchange rate of euros to Canadian dollars) $=$ CAD 67.16

- If you want to do the opposite and convert \$50 Canadian Dollars into euros, multiply the amount by the exchange rate.

CAD $50 \times 0.67$ (exchange rate of euros to Canadian dollars) $=$ EUR 33.50

Allow students to do a paired task where they find a solution for the following scenario:
You are planning a trip from Canada to the European Union. You have planned a budget of \$5,000 CAD. Use the exchange rate to calculate how many euros you would get. Ask students to round to two decimal places.

$$
\begin{aligned}
\text { Solution: } & =\$ 5,000 \times 0.67 \\
& =\$ 3,350 \text { EUR }
\end{aligned}
$$

## Assessment/Evaluation

Check for Understanding: Assign Activity Sheet - Online Shopping to assess independent understanding

## KEY TERMS

Exchange rate: Shows the price of one currency compared to another.
Budget: An estimate of expected income and expenses for a future period of time.
Income: Money received during a period of time from wages, interest, and other sources.
Expenses: Money spent during a period of time to pay for goods or services.
Fixed expenses: Expenses which tend to be about the same each month such as rent.
Variable expenses: Expenses which fluctuate each month such as entertainment.
Credit card: A credit card company pays for a purchase someone makes, and the person pays back the money to the credit card company.
Debit card: Debit cards take the money to pay for a purchase out of a person's bank account.
Cash: Using paper bills and coins to pay for purchases.
Debt: An amount owed to a person or organization for funds borrowed.
Interest: Money paid or earned when borrowing or depositing money. The principal is the amount of money borrowed or deposited.
Investment: Purchasing a security such as a bond or stock, hoping that it will make money over time.
Bond: Money that is lent (usually to a company or bank) by an investor with the promise of repayment and interest
Stock: When you buy stock, you usually take a greater risk than you would with any of the other types of investments.
Your reward will vary, depending on the prices you pay for your stocks and the dividends you receive. The amount of money you must have to buy stock depends on the prices of the stocks you buy and the number of shares you want. Mutual Fund: A type of investment that is made up of stocks, bonds, etc. shared by many investors.
Guaranteed Investment Certificate (GIC): A type of investment that may be purchased from banks and trust companies.
Similar to bonds, they are loaned money and earn interest.
Return: Money made or lost on an investment over a period of time.
Risk: The chance of losing all or part of the value of an investment.
Portfolio: A collection of financial assets such as stocks, bonds, and cash.
Dividend: A portion of a company's profit paid to stock owners.
Stock Market: When a company goes public, then the shares of that stock trade on one of the major U.S. stock exchanges (The New York Stock Exchange, the American Stock Exchange, and NASDAQ). Think of the stock exchange as a flea market where buyers and sellers come together and the buyers try to get an item for as low a price as possible and the sellers try to sell an item for as high as possible.
Index: Each index relates to the performance of stock and bond markets (ex. S\&P500).
Ticker Symbol: A unique series of letters used to identify a stock.

## ACTIVITY SHEET - ONLINE SHOPPING

You have been saving your allowance for a few weeks and you would like to treat yourself to some online shopping. Of course, you don't want to spend all your money! You tell yourself that you will only spend $\$ 60$ Canadian dollars online, but you notice that prices on different websites appear in different currencies. Complete the following worksheet by calculating the value of Canadian dollars (CAD) in the following currencies.

| Foreign currency | Exchange rate | How much is CAD\$30 worth? |
| :---: | :---: | :---: |
| Euro | CAD 1 = EUR 0.65 |  |
| US dollar | CAD $1=$ USD 0.80 |  |
| Pound sterling | CAD 1 $=$ GBP 0.60 |  |
| Foreign currency | Exchange rate | How much is CAD\$100 worth? |
| Euro | CAD 1 = EUR 0.65 |  |
| US dollar | CAD 1 = USD 0.80 |  |
| Pound sterling | CAD $1=$ GBP 0.60 |  |

Hint: this time, you're starting with the foreign amount (foreign currency $\div$ exchange rate).
Foreign currency Exchange rate Cost of item on website Value in Canadian dollars
Euro CAD $1=$ EUR 0.67 €25

US dollar CAD $1=$ USD $0.79 \quad \$ 42$

Pound sterling $\quad$ CAD $1=$ GBP $0.57 \quad £ 22$

Which option would be the least expensive? $\qquad$

# Lesson Plan (lessons 2-3) 

Lesson Topic: Budgets, Day 1
Objectives: Students will learn to create and maintain a budget. Students will apply fractions, decimals, and percentages to address real-world situations.

## Materials/Resources

Key Terms Sheet $\rightarrow$ refer to key terms list and focus on: • Budget: An estimate of expected income and expenses for a future period of time. • Income: Money received during a period of time from wages, interest, and other sources.

- Expenses: Money spent during a period of time to pay for goods or services.

Activity Sheet - My Personal Budget Goal Sheet

## Instructional Delivery

Minds On: Ask students how much money a grade 7 student needs to "live" each month and record responses on the board. Ask students to determine how they spend money (answers may include clothing, food/snacks, entertainment, savings, etc.). If students need more prompting, ask them how they get/earn the money they spend. Answers may include allowance, chores, jobs, gifts, etc.

Activity: Write the following sample student monthly expense and income information on the board:
Entertainment - \$15
Monthly Allowance - \$45
Music/Game Downloads - \$15
Pay from raking leaves on neighbour's lawn - \$15
Snacks - \$10
Ask if this student has enough money to meet the monthly expenses. (Yes.) Ask how this can be determined. Lead the class into concepts of income and expenses: group together income items and expense items, calculate totals, and compare the totals. Indicate that the student has an income of $\$ 60$ per month and expenses of $\$ 40$. Indicate that the difference of $\$ 20$ can be categorized as "savings."

Next rewrite the income and expense items in the form of a monthly budget:

## Income

Allowance \$45
Lawn Care \$15
Total Income $\$ \mathbf{6 0}$

Expenses
Entertainment \$15
Music/Games \$15
Snacks \$10
Total Expenses \$40

Ask students how to show the $\$ 20$ difference between income and expenses. Show as "savings" under expenses and change "total expenses" to $\$ 60$, equal to income. Lead students to key term of BUDGET $\rightarrow$ a financial plan that allows you to keep track on expenses. The goal is to keep expenses less than income.

Ask students to calculate the current percentage of this student's monthly expenses in savings (20/60 $=1 / 3=33.3 \%$ ) Can this student increase their monthly savings? How?

## Assessment/Evaluation

Check For Understanding: Think-Pair-Share. Get students to pair up and calculate the percentages of monthly expenses this student has for snacks, entertainment, and music. Take up answers together.

Independent Task: Assign students My Personal Budget Goal Sheet and explain to them that the sheet will be used to continue the next math lesson.

## MY PERSONAL BUDGET GOAL SHEET

Why Budget?
■ To determine how much money you have to spend and how you want to spend your money - To determine how to spend money in the future
■ To stay out of financial trouble

Before you set up your budget, you need to do some goal setting and reflecting. Respond to the following:

GOAL SETTING
■ List 2-3 of your financial goals (is it saving for something in particular? Do you want to have a certain amount of money at the end of the month?)
$\qquad$
$\qquad$
$\qquad$
$\qquad$
WHERE DOES YOUR MONEY COME FROM? (parents, chores, birthday, special occasion, allowance). List the sources of your income and the amount from each source:
$\qquad$
$\qquad$
$\qquad$

WHERE DOES YOUR MONEY GO? List the frequent things you spend your money on. How often do you spend money in a month? Do you tend to make impulse buys?
$\qquad$
$\qquad$
$\qquad$

HOW DO YOU DECIDE WHERE AND HOW TO SPEND YOUR MONEY? What factors influence your money spending decisions?

# Lesson Plan (lessons 2-3) 

Lesson Topic: Budgets, Day 2

Objectives: Students will learn to create and maintain a budget. Students will apply fractions, decimals, percentages to address real-world situations.

## Materials/Resources

Key Terms Sheet
Activity Sheet - My Personal Budget Goal Sheet from previous day
Activity Sheet - My Personal Budget

## Instructional Delivery

Minds On: Review the differences between income and expenses. Begin a discussion on the previous day's budget goal sheet. Ask students what kinds of things they tend to buy throughout the month. Ask if they always buy these items. Ask students if there could be instances where someone may spend the same amount of money every month. This should lead to a discussion on fixed expenses and variable expenses (definitions found on Key Terms sheet).

## Activity:

Remind students that a good way to make sure you have enough money to spend and save is to create and maintain a budget, so that you avoid having your expenses exceed your income. Explain to students that there are two main types of expenses $\rightarrow$ fixed expenses, which tend to be about the same each month such as rent and variable expenses, which fluctuate each month such as entertainment.

## Put the following scenario on the board:

For the month, William earned $\$ 3,260$ and tracked his expenses for the month to help create a monthly budget.
Expenses: Groceries \$300, Donations \$50, Rent for apartment \$1000, New shoes \$62, Video games \$50, Car payment \$240, Gas bill \$80

Copy the following table on the board and complete together so students have a better idea of fixed and variable expenses. Note: groceries could change monthly, but typically is around the same dollar amount every month.

| CATEGORY | FIXED | VARIABLE |
| :--- | :--- | :--- |
| EXPENSES: |  |  |
| Groceries | $\mathbf{3 0 0}$ | $\mathbf{5 0}$ |
| Donations | $\mathbf{1 0 0 0}$ |  |
| Rent |  | $\mathbf{6 2}$ |
| Shoes/Clothing | $\mathbf{2 4 0}$ | $\mathbf{5 0}$ |
| Video Games | $\mathbf{8 0}$ |  |
| Car Payment | $\mathbf{1 6 2 0}$ | $\mathbf{1 6 2}$ |
| Gas Bill |  |  |
| TOTAL EXPENSES (Fixed + <br> Variable) |  |  |

## Assessment/Evaluation

Check For Understanding: Ask students to calculate total expenses and then determine if income was greater than or less than expenses for the month. Their work should reflect them taking the difference of income and expenses.

$$
\begin{aligned}
\text { Income }- \text { Expenses } & =3260-(1620+162) \\
& =3260-1782 \\
& =1478
\end{aligned}
$$

Independent Task: Ask students to take out their My Personal Budget Goal Sheet from yesterday. Distribute the activity sheet - My Personal Budget. Explain that they will create a monthly budget that includes their expenses (fixed and variable) as well as income based on the provided instructions.

## EXTENSIONS:

Student can create a graph to represent their budget (pictographs, line graphs, bar graphs, circle graphs; discuss which graphs would be appropriate and how they might use them)

## CIBC

## MY PERSONAL BUDGET

Imagine you have an allowance of \$20/week. You have also had the opportunity to make more money, by completing extra chores and now have a total of $\$ 1,000$. Create a monthly budget using the total income of $\$ 1,000$. Include both fixed and variable expenses. Give yourself realistic expenses by completing the following table. Be sure to place the expense in the proper column (for instance, something you pay for each month would go in the "Fixed" column). Then, answer the questions.

| CATEGORY | FIXED |
| :--- | :--- |
| EXPENSES: |  |
| Snacks |  |
| Donation to <br> Favourite Charity |  |
| Entertainment <br> (games, going out) |  |
| Shoes/Clothing |  |
| Birthday gift for <br> family member |  |
| Monthly <br> subscription |  |
| TOTAL EXPENSES <br> (Fixed + Variable) |  |

1) Calculate the total expenses.
2) Was your income greater than or less than expenses for the month? Use a formula and show your work:

3) What will you do with money left over at the end of your budget? Are you saving it? Spending it all? Spending some? Explain your choices.

# Lesson Plan (lesson 4) 

Lesson Topic: Methods of payment

Objectives: Students will learn about the different methods of payment as well as the advantages and disadvantages to these methods.

## Materials/Resources

## Key Terms Sheet

Activity Sheet - Methods of Payment Reflection

## Instructional Delivery

Minds On: Begin lesson by asking students how people typically make purchases. Students may come up with main methods of payment: cash, credit, and debit. Tell students there are many more ways to make purchases, but we will focus on these for now.

Activity: Ask students to refer to their key terms list and together, read and discuss the following:
Credit card: A credit card company pays for a purchase someone makes, and the person pays back the money to the credit card company.
Debit card: Debit cards take the money to pay for a purchase out of a person's bank account.
Cash: Using paper bills and coins to pay for purchases.
Debt: An amount owed to a person or organization for funds borrowed.

Brainstorm with students the advantages and disadvantages of using credit cards. Your shared mind map should have some of the following:

## Advantages

- Able to buy items immediately
- No need to carry cash
- Creates a record of purchases
- Puts bills into one payment


## Disadvantages

- Interest *students may not be familiar with this term but let them know you will come back to it at a later lesson in the unit
- Additional fees
- Easy to lose track of how much you spend in a month
- Increases impulse buying

Explain to students that one of the reasons people go into debt is because they do not pay the full amount on their credit card bill. Explain that credit card companies give people the option of paying the minimum amount of their bill and wait until later to finish paying. The danger in this is that if people choose to pay the minimum amount and then continue paying off their credit card bill on a monthly basis, they will have to pay an interest fee on top of their bill. For grade 7 students, let them know they will be learning to calculate simple interest next lesson.

## Assessment/Evaluation

Check for Understanding: Distribute Methods of Payment Reflection and have students complete the activity independently. Use their responses to assess their understanding.

## METHODS OF PAYMENT REFLECTION

1) What are two advantages and disadvantages of paying for items by cash? What are two advantages and disadvantages of paying for items by credit card?

| Advantages |  | Disadvantages |
| :--- | :--- | :--- |
| Cash | - | - |
|  | - | - |
|  |  |  |
|  |  |  |

2) What is a minimum payment?
3) How can you avoid getting into financial trouble if you use a credit card?

# Lesson Plan (lesson 5) 

## Lesson Topic: Simple Interest

Objectives: Students will continue to learn about credit cards. They will gain an understanding of simple interest and how to calculate interest owed on a credit card statement.

## Materials/Resources

Key Terms Sheet
Activity Sheet - Calculating Interest Word Problems

## Instructional Delivery

Minds On: Remind students of the previous day's lesson. Remind them that when paying with a credit card, they are borrowing money. At the end of the month, they will receive a credit card statement with two options: they either pay the full amount of their balance, or they pay the minimum amount. If they choose to pay the minimum amount, they will have to pay interest on top of their balance. Explain that the interest is a percent of what is still owed after the minimum payment. The interest is added to the amount still owed at the end of the next month.

## Activity:

Project the following example of the board to go through together.

Your credit card statement for last month was $\$ 1,500$. You have an annual interest rate of $20 \%$. If you do not pay off the balance at the end of the month, how much money will you owe the credit card company after 1 year?

Introduce the simple interest formula. Explain to the class that to calculate the amount of interest in dollars, the simple interest formula is: $I=p r t$

- I = interest
- $p=$ principal (amount of money deposited or borrowed)
- $r=r a t e$ (annual interest rate, written as a decimal)
- $\mathrm{t}=$ time (expressed in years)

So, let's use this formula to determine what your balance will be.
I = prt
$\mathrm{I}=1500 \times 0.20 \times 1$
$\mathrm{I}=300$

Let students know that the $\$ 300$ is just the interest owed after one year. They will also have to pay the initial principal amount (the $\$ 1,500$ they borrowed on credit). So, in total, they will have paid $\$ 1,800$ after one year instead of the principal amount of $\$ 1,500$. Have a discussion about the importance of avoiding putting more on your credit card than you can pay off. Lead the class through a discussion about what can happen if you have more than one credit card and are typically paying off the minimum amount rather than the principal amount.

## Assessment/Evaluation

Check for Understanding: Assess understanding by posing the question on the board. Have students answer independently by using the simple interest formula. Walk around to see if students understand how to calculate the interest/who needs another class example.

After a month of travelling, your credit card bill is higher than usual. You are shocked to see a total of $\$ 9,500$ ! Your current credit card charges an annual interest of $18 \%$. If you spend the next 3 years paying off this credit card bill, how much interest have you paid in addition to your principal amount?

Tell the class to use the I = prt formula.
$\mathrm{I}=9500 \times 0.18 \times 3$
$\mathrm{I}=\$ 5,130$

Next, distribute the set of Calculating Interest Word Problems for students to complete independently in their notebooks.

## Answer Key:

1) $\$ 975.05$
2) $\$ 9,375$
3) $\$ 2,076.01$

# CALCULATING INTEREST WORD PROBLEMS 

HINT: Use, I = prt<br>* Remember to round your answers to two decimal places

1. Molly used her credit card to make a big purchase last month for her college textbooks. In addition to her textbooks, she bought groceries and gas on her credit card. When she saw her credit card bill, she couldn't believe her balance was $\$ 3,250.15$ ! She did not have enough money to pay her balance, so she decided to pay the minimum balance for now. She thought she would just pay whatever she could over the next few months. Her credit card company charges an annual interest rate of $15 \%$. Molly ended up paying off her credit card bill in two years. What was the total amount of interest that Molly paid?
2. Mr. Smythe did not have enough money to buy a new washer and dryer upfront. So, he used his credit card to make this purchase of $\$ 7,500$. At the end of the month, he knew he wouldn't be able to pay off the balance. His credit card company has an annual interest rate of $25 \%$. How much interest has he paid in five years?
3. To be able to buy a new computer, Ellie used her credit card. In addition to the computer, Ellie also used her credit card several times throughout the month. Her next statement showed a principal amount of $\$ 5,323.10$ with an annual interest rate of $13 \%$. How much interest has she paid in three years?

# Lesson Plan (lesson 6) 

Lesson Topic: Simple Interest
Objectives: Students will continue to practice calculating simple interest. In this lesson, they will explore the concept of interest in terms of saving and investing.

## Materials/Resources

Key Terms Sheet
Activity Sheet - Simple Interest Mixed Word Problems

## Instructional Delivery

Minds On: Begin lesson by posing the question, "can money make money?" If students are stuck on this question, refer to their key terms sheet and review the term "interest." Interest: Money paid or earned when borrowing or depositing money. The principal is the amount of money borrowed or deposited. Explain to students that although interest is something that we often pay if we borrow money (like buying on credit), interest is also money you can earn when you save or invest your money.

Activity: Explain to students that many people do not want to simply save their money. They want to make money while they save. So, many people choose to open savings accounts that pay interest. Explain to students that we use the same simple interest formula as the previous lesson to calculate the amount earned.

I = prt
I = Dollar Amount (the money invested/deposited) x Interest rate (as a decimal) x Length of Time (in years) = Amount Earned

Copy the following example on the board and practice together.
If you had $\$ 200$ in a savings account that paid $6 \%$ simple interest, how much money would you earn after one year?

$$
\begin{aligned}
& \text { I }=\text { prt } \\
& \text { I }=\$ 200 \times 0.06 \times 1=\$ 12
\end{aligned}
$$

At the end of the year, you would have earned $\$ 12$. Explain to students that this savings account would continue to grow at a rate of $\$ 12$ per year.

## Assessment/Evaluation

Check for Understanding: Ask students to copy down the following example and work on it with a partner or independently. Ask students to use the simple interest formula of $I=p r t$ and to show their work.

Mr. Jo had \$4,500 in his high interest savings account. The bank account earns an annual interest of 4\%. How much interest will he earn in 5 years?

## Answer:

I = prt
$\mathrm{I}=4500 \times 0.04 \times 5$
$\mathrm{I}=\$ 900$

Next, distribute Simple Interest Mixed Word Problems to students. Remind them that in some cases, the interest is what they will pay on top of money borrowed and in other cases, the interest will be money earned on top of the principal amount deposited. Note: Students may find this question difficult if they have not done an algebra unit yet. If so, they will need their algebraic skills to isolate for the variable, $R$, and solve.

## Answer Key:

1) $\$ 105$ after 1 year. $\$ 525$ after 5 years.
2) $\$ 5,250$ after 3 years. Total amount to repay $\$ 30,250$.
3) $\$ 315$ interest; $\$ 7,315$ total.
4) $I=P R T$
$360=3000 \mathrm{R} \times 3$
$360 / 3=3000 R \times 3 / 3$
$120 / 3000=3000 R / 3000$
$0.04=R$

## SIMPLE INTEREST MIXED WORD PROBLEMS

1) A bank is offering $3.5 \%$ simple interest on a savings account. If you deposit $\$ 3,000$, how much interest will you earn in one year? How much will you earn in five years?
2) To buy a car, your older brother borrowed $\$ 25,000$ for 3 years at an annual simple interest rate of $7 \%$. How much interest will he pay if he pays the entire loan off at the end of the third year? What is the total amount that he will repay?
3) Mr. Jacobs borrowed $\$ 7,000$ at an annual interest rate of $1.5 \%$ for 3 years to renovate his basement. What did his total cost end up being (principal amount and interest)?
4) Maggie deposited $\$ 3,000$ in a simple interest account 3 years ago. She has earned $\$ 360$ in interest so far. What is the interest rate for her account?

# Lesson Plan (lesson 7) 

## Lesson Topic: Saving

Objectives: Students will learn about the concept of "paying yourself first," become more aware of the benefits of saving, and perform mathematical calculations.

## Materials/Resources

Activity Sheet - Growing My Money Tree

## Instructional Delivery

Minds On: Begin lesson by asking the class, "what does it mean to pay yourself first?" Evaluate the student responses and together, come up with a definition of the concept: paying yourself first means that whenever you get money, the first thing you should do is put some aside (hence, "pay yourself first"). Explain to students that the purpose of putting money aside is not to make a purchase later on-the purpose of paying yourself first is to grow a money tree.

Activity: Explain to the class that all money trees begin with a seed - this seed is small and could be a dime, a quarter, a dollar. It's not much at first. After it is planted, it still may not seem as much and may feel like it is growing very slowly. But, the money tree does grow, and eventually, it will grow more branches to form hundreds and thousands of dollars. The longer you allow your tree to grow and mature, the more money it will produce.

Distribute the sheet, Growing My Money Tree. Discuss what is needed to grow a money tree $\rightarrow$ water (savings), seeds(investments), and care (giving). Allow students to get started on the thinking questions. To encourage students to explain their thoughts more fully, have them write their responses in their notebooks. If there is time at the end of class, have a whole group discussion about their responses.

## Assessment/Evaluation

Check for Understanding: Facilitate a whole group discussion at the end of class (or the beginning of the next class) to assess student thinking. Students should be able to explain their decisions when it comes to saving, investing, and charitable giving.

# GROWING MY MONEY TREE <br> WHAT DO I NEED TO GROW MY MONEY TREE? 



Water/Savings. A money tree needs water to withstand tough times and survive through even the most challenging times. In order to keep your money tree alive, make sure you set aside some savings. By paying yourself first each time you get money, you will have a supply of water in case you experience a drought (dry spells with less income). The key is to have enough savings to get you through a challenging financial time.

Seeds/Investing. Of course, all trees need seeds to grow. It can be tempting to consume your seeds as you see your money grow. However, you will want to invest your seeds/money as your money tree grows. As you continue to save/pay yourself first, you will also want to set some of your money aside into an investment account. This will be your seed money as you build your future.


Care/Giving. All trees grow faster and stronger with your care and nurturing. Protect your tree by giving it extra nutrition and love. This comes into the form of giving. As you continue to save and invest, set aside some money into a charity account. Helping others by charitable gifts allows you to be a richer person.

Thinking Questions - respond to the following by adding detail

1. As you plant your money tree, how will you take care of it? Explain your thinking.
2. How much do you plan to save for a tough financial time? Explain your thinking.
3. What kinds of seeds will you plant? In other words, what kind of investments will you make? Why did you make these choices?
4. How will you care for your tree? Identify at least two charities you would give to. Why did you choose these charities?

# Lesson Plan (lesson 8) 

Lesson Topic: Investing, Day 1
Objectives: Students will learn about the basics of investing, including key terminology, main ways to invest, and investment strategies.

## Materials/Resources

## Key Terms

Activity Sheets - Risk Tolerance and Rating and Investment Portfolio Risk Sheet

## Instructional Delivery

Minds On: Begin lesson by asking the class, "other than interest earned from savings, what is another way that people can make money?" Explain to class that while most people earn their income from employment and others receive money from the government, many people also generate income through investments. Explain to students that investment income can come in several forms.

Activity: Refer to their key terms sheet and go over terms for today: investment, dividend, stock, bond, mutual fund, guaranteed investment certificates (GICs), portfolio, risk, return. Explain to the class that investment advisors develop portfolios for their clients to help them meet their financial goals. Explain that portfolios may include stocks, bonds, mutual funds, and other strategies. Ask the class, "what kind of information would investment advisors need to create a portfolio that makes sense for their client?" Brainstorm ideas together and include these ideas in a mind map. Your mind map may include concepts like age, family situation, employment, risks that clients are comfortable taking, etc.

Next, distribute the Risk Tolerance and Rating Sheet for students to glue in their notebooks. Ask the class, "would you rather keep a $\$ 100$ prize or trade it for a mystery box that contains either $\$ 50$, $\$ 175$, or $\$ 500$ ?" Then, explain to students that assessing a client's risk is a very important part of putting together their portfolio. Go over the ratings to help students understand how clients are rated based on their risk tolerances.

Next, project the following scenario on the board.
You decided to buy $\$ 2,000$ worth of stock in a company that makes popular products. You believed that the company would continue to grow and make profit for the next few years. However, two months later, you found out that the company was in a lawsuit and would no longer be able to sell its most popular product. You decided to sell your stock. When you called your investment advisor, you discovered that your shares were worth $\$ 1,300$. How would you describe the financial risk that you face?

Students should come up with something similar to the idea that the stock declined in value, so by selling your shares today, you face the risk of losing capital (money).

## Assessment/Evaluation

Check for Understanding: Distribute the Investment Portfolio Risk Sheet and assess student understanding of lesson. Students can complete their responses on lined paper or in their notebooks. Evaluate their understanding by the reasoning behind their investment choices.

## RISK TOLERANCE AND RATINGS

How much risk are you willing to take? Here are some questions investment advisors consider.

Financial goals
How much money do you want to build over a certain period of time?
Time horizon
How long can you leave your money invested? If you will need your money short term (such as one year), you may want to take less risk than you would if you won't need your money for 20 years.

## Financial risk tolerance

Are you in a position to invest in riskier alternatives? If you cannot afford to lose your investment, you should take less risk.

## Age

How old are you? Age can be one of the most important factors in determining how much risk a person can take when investing. For instance, risky investments are probably not ideal for someone who plans to retire within the next few years.

## RISK RATINGS

## Low

Low-Medium
Medium
Medium-High
High

## INVESTMENT PORTFOLIO RISK SHEET

Read the profiles below about each investor. Then, assign them a risk level you believe they would be comfortable with. Remember to consider their age, financial goals, income, and life situation. After assigning their risk level, respond to the reflection questions.

| INVESTOR \#1 |  |  |
| :--- | :--- | :--- |
| Investor Profile | Risk Level (circle all that apply) |  |
| Matthew is 50 years old. He recently inherited $\$ 100,000$ <br> which he would like to invest. He would also like to retire <br> in 10 years. He has had an annual income of $\$ 150,000$ for <br> the last five years. He is single with no dependents. | Low | Medium |$\quad$| Medium-High |
| :--- |
| Reflection: |
| 1) How much should Matthew invest in stocks? How much should Matthew invest in bonds? Why did you make these |
| choices? |
| 2) What are other strategies you would advise Matthew to do? Why? |

## INVESTOR \#2

| Investor Profile | Risk Level (circle all that apply) |  |
| :--- | :--- | :--- |
| Claire has $\$ 35,000$ to invest over a 10-year period. Her <br> goal is to make money to help pay for tuition when her <br> two children begin college. She wants to find investments <br> that will give returns. She is a single mom with an annual <br> salary of $\$ 85,000$ and no debts. | Low | Low-Medium |$\quad$| Medium-High |
| :--- |

## Reflection:

1) How much should Claire invest in stocks? How much should Claire invest in bonds? Why did you make these choices?
2) What are other strategies you would advise Claire to do? Why?

# Lesson Plan (lesson 9) 

Lesson Topic: Investing, Day 2
Objectives: Students will build upon the basics of investing, by learning how to analyze a stock's performance.

## Materials/Resources

Key Terms
iPads (if applicable)
Stock Market Scavenger Hunt Worksheet
Instructional Delivery
Minds On: Begin lesson by taking up sample responses from the previous homework/classwork task, Risk Tolerance and Ratings. Review the key terms from the previous lesson: investment, dividend, stock, bond, mutual fund, guaranteed investment certificates (GICs), portfolio, risk, return. Review main types of investments by creating a flow chart/summary chart to summarize the fundamental differences between them.

| Type of Investment | Summary Notes |
| :---: | :---: |
| Mutual Funds | -pool of money that is used to invest in various products. Mutual funds are traded in the stock market, whereas GICs are not. |
| Bonds | - long-term debt issued by banks or governments <br> - less risk lower return <br> - seller pays you interest on the loan at a fixed rate and schedule |
| Stocks | - shares of a company <br> - more risk, higher return <br> - if your stock increases in value, you can sell it for more than your original purchase price |
| GICs | -when you lend your money to the bank for a set amount of time, they agree to pay you a certain percentage of interest as a return. -offer predictable and consistent income |

Explain to the class that today, they will learn how to look up a particular stock on an index and track its performance. Refer to the new terms for the day: stock market, index, and ticker symbol.

## Activity:

Project Yahoo Finance and/or have students visit the site on iPads/computers (if you have the option of booking them from your school). Have students refer to their key terms sheet and focus on the ones for today: stock market, index ticker symbol. Navigate the site and point out the features and how to look up a stock and its data.

Say, "That top search bar is going to be the place where you'll find the most use and get the most data for stock market investing. Every stock that is publicly traded will have its own ticker symbol." Tell the class you're going to look
up a stock. Perhaps use Apple as an example. Say, "we're going to use the ticker for Apple as an example (AAPL). When we type AAPL into the search bar, we get data. Right away, there's a big number in bold. That's the current price of the stock."

Explain to students that in smaller numbers and in either red or green colour is the difference in the stock price for today. Explain that they will see an arrow going up to show a gain and down to show a loss, the amount of dollar value $(\$)$ gained or lost for the day, and the percentage of that difference compared to the price. You may want to highlight to students that "Nasdaq Real Time Price" shows that Apple stock is traded on the Nasdaq index. Use your discretion as to how detailed you want to be with indexes-you know your learners best.

However, for a brief summary, you may simply want to have them note the following:

An index measures a stock market. It helps investors compare current price levels with past prices to calculate market performance. In the US, the major indexes are:

Dow Jones - one of the oldest, most well-known indexes. It includes the stocks of 30 of the largest and most influential companies in the U.S.

S \& P 500 - this index features 500 of the top companies in the U.S. represents and shows approximately $80 \%$ of the total value of the U.S. stock market.

Nasdaq - the index/exchange on which technology stocks are traded

AAPL - Apple Inc.
Yahoo Finance
$142.39-0.44(-0.31 \%)$
at Thu, Sep $30,2021,2: 23$ PM EDT - U.S. markets close in 1 hour 37 minutes
Nasdaq Real Time Price

| Open | 143.66 | 52 Wk. High | 157.26 |
| :--- | ---: | :--- | ---: |
| High | 144.38 | 52 Wk. Low | 107.32 |
| Low | 141.30 | P/E | 27.88 |
| Prev. Close | 142.83 | Mkt. Cap | $2353.74 B$ |

NasdaqGS - Price in USD - Quotes up to 0 mins delayed
Get the class more involved by asking which stocks you should look up together. Look up a couple more stocks as a class so the students become more familiar with using a ticker symbol to find the data on a stock and how to analyze it. You may even want to ask questions to the class such as, "why do you think this stock had a price increase/decrease?" "What was happening in the news/sports/medicine/economy/etc. that could have affected this company's stock?" Encourage the class to think about stocks of companies more holistically. Ask the class, if you had $\$ 10,000$ to invest in a stock, which stock would you choose? Allow students to contribute and include their reasons for choosing the stock. * Note: this screen shot represents the price of Apple stock, as of September 30, 2021

## Assessment/Evaluation

Distribute the Stock Market Scavenger Hunt Worksheet. If you have access to iPads/laptops from school, students can begin working on the worksheet in class. Otherwise, assign for homework.

## STOCK MARKET SCAVENGER HUNT

Use the Internet to answer the following.
Use your own words and thoughts for questions \#6b-8

7. Would you invest in any of these stocks? Why or why not? Explain your reasoning.


# Lesson Plan (lesson 10) 

Lesson Topic: Active Consumer
Objectives: Students will learn about deceptive advertising techniques in an effort to become more conscious and mindful consumers. Students will learn decision-making methods before purchasing products/services.
Materials/Resources
Advertising Key Terms and Techniques Sheet
Decisions, Decisions Sheet

## Instructional Delivery

Minds On: Begin lesson by drawing attention to the plethora of choices we have as consumers/investors. Say, "with so many choices available to us, how can we be sure we are making the right decisions?" Engage in a conversation with students about the information that we have available - from making investment decisions to purchase certain stocks to seeing advertisements on social media, we are constantly faced with choices we need to make about how to spend our money.

Activity: Distribute Advertising Key Terms and Techniques sheet for students to glue in their notebooks/keep in binders. Go through the techniques with the class and ask them for their input. Ask them where they have seen these specific techniques being used. You may even want to project certain examples of techniques being used in the media recently. Discuss how personal values and attitudes influence purchasing choices and how values are reflected in these choices.

Next, create a mind map of smart shopper strategies (questions we should ask ourselves before we purchase). Students should come up with ideas/questions similar to:

Do I need this or want this? What quality do I need? How much can I spend? What has influenced me to want this? What are the benefits of this product/service? Are there hidden costs? Is there any information that has not been shared with me?

Next, distribute the Decisions, Decisions sheet for students to begin working on in class. Use this as an opportunity to continue the discussion about what influences us as consumers and investors and how we need to implement smart shopper strategies when it comes to our money.

* Cross-curricular opportunities include using this lesson to introduce larger media literacy unit and/or using assessment for media literacy unit


## Assessment/Evaluation

Check for Understanding: Take up student responses from Decisions, Decisions. Assess their level of understanding by how they connect the use of advertising to how people are influenced to spend money. Encourage the class to reflect on how they will become smarter shoppers and investors. Assess their ability to understand what they need to be aware of and more mindful of when making decisions to spend money.

## ADVERTISING KEY TERMS AND TECHNIQUES

## KEY TERM

A target market is a certain group of consumers that a product or service is aimed for.

## TYPES OF ADVERTISING

## Ethos- an appeal to credibility or character

Advertisers use ethos to show that their company is more reliable or trustworthy than others. For example, companies may use a doctor in a testimonial advertising their multi-vitamin.

## Logos- an appeal to logic or reason

When advertisers use logos, they show consumers the facts and evidence about what their product does.

## Pathos- an appeal to emotion

Pathos is used to appeal to the consumers' emotions. For example, advertisers show people being extremely happy using their product.

## ADVERTISING TECHNIQUES

Avant Garde- The idea that using this product will put you ahead of the times.
Weasel Words- Using words such as "virtually" spotless and "most" of the time. This gives you the illusion of a guarantee, while not actually guaranteeing anything.

Transfer- Using positive ideas, images, and words to suggest that the product is also positive.
Bribery- Offers you something "extra."

Band Wagon- This technique pressures you to join the crowd in buying this product so you aren't the only one without it.

Slogan- Having a short, catchy phrase that people will remember.
Testimonial- A satisfied customer shares their experiences with the product to convince others to buy.
Celebrity Endorsement- Having a celebrity advertise your product.

## DECISIONS, DECISIONS

Purchasing decisions are made for many reasons. When deciding what to buy, you may be influenced by several factors including: ■ Your personal interests $■$ Your activities $■$ Your values

After discussing various advertising techniques, answer the following questions for an advertisement you have recently seen (this could be a TV commercial, a social media ad, a print ad, etc.).

1. Describe this advertisement. Who is in it? Who is not included? What happens in the ad?
2. What advertising techniques and appeals are used?
3. How does this ad effectively influence someone's purchasing decision?
4. How can advertisements affect the way you may look at a company? How can it affect your decision to buy company stocks?

## CULMINATING PROJECT Building a Client's Investment Portfolio

As we finish our Financial Literacy unit, you will apply what you have learned by serving as financial advisors. Choose ONE of the following clients. Then, use the provided template to help create their financial investment portfolio. Use the guiding questions in the template to create a portfolio that makes sense for your client. Your client's portfolio should demonstrate an understanding of different investment types and their risk and return potential.

- Client A has $\$ 65,000$ to invest over a 10-year period. Her main goal is to make money to help pay for tuition when her two children begin college. Her children are eight and ten years old. She is a single mother and has an annual income of $\$ 120,000$. She currently has $\$ 280,000$ left of her mortgage.
- Client B is 20 years old. She has been given a gift of $\$ 10,000$ to start an investment account in the stock market to build toward the future. She is in her second year of university and currently has a student loan of \$4,000.
- Client C has $\$ 200,000$, is 50 years old, and wants to build an investment portfolio that will help him when he retires at age 65 . He is married - he and his wife have no children.


## GUIDING QUESTIONS

1) Which client did you choose (Client A, Client B, or Client C)?: $\qquad$
2) How old is your client and how much money do they have to invest?
3) Identify your client's main goal for their investment.
4) Consider your client's age, family life, income, and goals to complete the table below. Determine how much of each type of investment you want to include in their portfolio. Be sure to include specific dollar amounts.

| Type of <br> Investment | Amount to invest <br> (dollar amount) | Reason for choosing this type of investment and dollar amount |
| :--- | :--- | :--- |
| Bonds |  |  |

5) Identify a specific company stock you would choose for your client to invest in and respond to the following:
a) What is the company? $\qquad$
b) Stock ticker/symbol? $\qquad$
c) Why would you choose this stock?
6) Write a detailed summary that explains the risk levels you believe your client will feel comfortable tolerating. Explain the return potential for each type of investment you have you have chosen (from the table). How will the return potential help your client achieve their goals?

## RUBRIC

| Criteria | Level 1 | Level 2 | Level 3 | Level 4 |
| :---: | :---: | :---: | :---: | :---: |
| Knowledge <br> - able to identify factors that influence financial planning <br> - able to use key terms effectively <br> - identifies the level of risk involved with investment options. | - Student shows limited ability to identify factors that influence financial planning; is not able to use key terms effectively; has challenges identifying the level of risk involved with investment options. | - Student shows some ability to identify factors that influence financial planning; is able to use key terms effectively; has general understanding of level of risk involved with investment options. | - Student shows ability to identify factors that influence financial planning; is able to use key terms effectively; is able to identify the level of risk involved with investment options. | - Student shows considerable ability to identify factors that influence financial planning; is able to use key terms effectively; identifies the level of risk involved with investment options with insight. |
| Application <br> - able to assess adjustment of goals <br> - able to evaluate various <br> investment options applicable to client <br> - understands the relationship between investment risk and return. | - Student shows limited ability to assess adjustment of goals; is not able to evaluate various investment options applicable to client; has limited understanding of the relationship between investment risk and return. | - Student shows some ability to assess adjustment of goals; is able to evaluate various investment options applicable to client; has some understanding of the relationship between investment risk and return. | - Student shows ability to assess adjustment of goals; is able to evaluate various investment options applicable to client; has good understanding of the relationship between investment risk and return. | - Student shows considerable ability to assess adjustment of goals; is able to evaluate various investment options applicable to client; has great understanding of the relationship between investment risk and return. |
| Communication <br> - able to explain types of investment options <br> - explores the potential returns related to investment options. | - Student has limited ability to explain types of investment options; shows vague understanding of the potential returns related to investment options. | - Student shows some ability to explain types of investment options; can explore the potential returns related to investment optionsexplanations tend to be general | -Student can explain types of investment options and is able to explore the potential returns related to investment options with some detail. | - Student shows considerable ability to explain types of investment options; can explore the potential returns related to investment options and provide insightful explanations. |



Roy Ruppert, FCSI, CIM
Senior Wealth Advisor
Portfolio Manager

(905) 272-6000 roy.ruppert@cibc.ca www.ruppertteam.com

As a Senior Wealth Advisor and Portfolio Manager, Roy has successfully led The Ruppert Team ensuring his clients receive elite portfolio construction as well as tax minimization and estate planning strategies. Capitalizing on the vast resources of CIBC, Roy is able to provide tailor-made financial strategies to some of Canada's most affluent investors. Roy's business has been built on a solid foundation of mutual respect and trust by a diverse group of clients and their families.

Roy has been in this industry for over 35 years and has more than 25 years of experience as a manager. He possesses extensive wealth management and investment knowledge, along with a considerable amount of insight on business operations. Being in charge of his own office as Branch Manager with staff of over 50 individuals and an oversight of over 3 billion dollars in assets, this helps him identify with his clients who also run their own businesses.

When Roy is not working, he loves spending time with his family.

Roy Ruppert is a Senior Wealth Advisor with CIBC Wood Gundy in Mississauga. He and his clients may own securities mentioned in this column. The views of Roy Ruppert do not necessarily reflect those of CIBC World Markets Inc. "CIBC Private Wealth Management" is a registered trademark of CIBC, used under license. "Wood Gundy" is a registered trademark of CIBC World Markets Inc.

This information, including any opinion, is based on various sources believed to be reliable, but its accuracy cannot be guaranteed and is subject to change. CIBC and CIBC World Markets Inc., their affiliates, directors, officers and employees may buy, sell, or hold a position in securities of a company mentioned herein, its affiliates or subsidiaries, and may also perform financial advisory services, investment banking or other services for, or have lending or other credit relationships with the same. CIBC World Markets Inc. and its representatives will receive sales commissions and/or a spread between bid and ask prices if you purchase, sell or hold the securities referred to above. © CIBC World Markets Inc. 2021.
This financial literacy unit plan was created and developed with an Ontario teacher.

