Saving vs. spending

In this lesson, students will explore the pros and cons of spending and saving and the effect of interest on saving and borrowing. Class discussions cover the importance of starting early with retirement and other savings plans, the importance of an emergency fund, and how to apply the Rule of 72.

Subject

HIP4O – Personal Life Management
MCR3U – Functions

*Also applicable in Guidance and Career Education, Canadian and World Studies, and Business Studies.

Suggested timing

70 minutes

Financial literacy objectives

At the end of this lesson, students will:
- be able to create a personal budget;
- understand the difference between simple and compound interest.

Curriculum expectations

Social Sciences and Humanities, grades 9 to 12 (2013)
Personal Life Management (HIP4O)

Self and others

B1.1   Compare the role of adolescents and adults and identify responsibilities they themselves will assume and personal qualities they will require as they take on adult roles.

B1.2   Identify their personal short-term and long-term goals and the essential skills and knowledge needed to achieve them.

Daily living skills

C1.4   Analyze the relationship between effective decision-making and personal well-being.

C2.3   Explain the reasons for setting aside a portion of income as savings.

Curriculum expectations
(cont'd)

Economics and personal finances

E1.1 Explain the impact of various economic changes on individual finances (e.g., changes in interest rates, consumer prices, employment rates; fluctuations in the value of the dollar; inflation; border closures; changes in the supply of or demand for various commodities).

E1.3 Identify and describe strategies they can use to plan for and manage unexpected financial crises (e.g., saving money, making investments, owning property, borrowing money, using credit, preventing and/or repairing the damage from identity theft and fraud).

Mathematics , grades 11 and 12 (2007)
Functions (MCR3U)

Discrete functions

Determine through investigation using technology (e.g., the TVM solver on a graphing calculator, online tools), the effects of changing the conditions (e.g., payments, frequency of payments, the interest rate, the compounding period) of ordinary simple annuities (e.g., long-term savings plans, loans).

Assessment

Collect: Spend or save? (Appendix A)

What you need

• Spend or save? (Appendix A)
• Saving vs. spending quiz (Appendix B)
• Computer lab
• Chart paper

Minds on

Class: human bar graph

• Write the Letters A to D – one each on a separate sheet of paper.
• Post those letters in your room.
• Distribute handout – Saving vs. spending quiz (Appendix B).
• Have the students complete the quiz but they are NOT to put their names on the paper.
• Each student is then to crumple up the quiz and toss into the centre of the room.
• Each student is to retrieve one paper (not their own).
• For each question, have students line-up under the letter according to the answer on their paper (not what they think is the answer).
• Discuss the results after each question.

Minds on
(cont'd)

Individual: computer application
- Save or spend? Most of us will likely prefer to spend now and save later. Does it really matter if we spend now and save at a later date?
- Ask students to think of an item that they are currently saving for or would like to save for in the near future. Have students determine how much they need to save per month/year to purchase their desired item.
- Students can complete the financial goals worksheet found on www.InspireFinancialLearning.ca, and use an online savings calculator, graphing calculator or spreadsheet to complete their calculation.
- Encourage students to change their savings timeline and rates of return to see what happens.

Context for learning
Bill Fold is a fictional character who is constantly getting himself into financial scrapes. Use the scenario below to provide students with a context for learning.

Two of Bill Fold's friends have recently purchased condos. Bill thinks it might be a good idea for him to purchase one, too. He has some money saved but knows that it is not enough for a down payment. What can he do to get a down payment faster?

Action

Whole class: case study
- Distribute Spend or save? (Appendix A)
- Explain that a registered retirement savings plan (RRSP) is an account registered with the federal government that you use to save for your retirement.
- Discuss the benefits of saving in an RRSP (e.g., contributions are tax deductible, savings grow tax free, you can borrow from your RRSP to buy your first home or pay for your education) as well as the drawbacks (e.g., contribution limits, taxes withheld with early withdrawals, etc.). For more information, visit: http://www.getsmarteraboutmoney.ca/en/managing-your-money/investing/rrsps-for-retirement/Pages/Five-reasons-to-open-an-RRSP.aspx
- Ask students to complete questions 1 to 3 in Appendix A independently then discuss results in pairs and as a class (you may wish to assess this in addition to any class discussion)

Action
(cont'd)

- Review the terms investment period and investment value:
  - Investment period: length of time you invest
  - Investment value: how much your investment is worth
- To complete questions 4 and 5 on the handout, direct students to the RRSP savings calculator on GetSmarterAboutMoney.ca to help them calculate interest earned on their investment:
  http://www.getsmarteraboutmoney.ca/tools-and-calculators/rrsp-savings-calculator/rrsp-savings-calculator.aspx
- Have students compare and discuss answers with a partner.

Consolidation/ debrief

Class: discussion
Discuss the critical questions below:
1. Using the RRSP calculator on www.GetSmarterAboutMoney.ca, ask students to investigate the following question: how much do you need to put aside now every month if you want to retire at age 60? Discuss findings as a class.
2. Recall or show the slideshow about bankrupt athletes from the Mind over Money lesson *Setting priorities*. Draw students' attention to the fact that 60% of NBA players go broke after they retire. If they were the financial adviser to an NBA player, how would they make sure he stays afloat financially?
3. On chart paper, record and discuss savings tips and display it in the class.
   Tips can include:
   - Start early
   - Set up an emergency fund
   - Pay yourself first
   - Make savings automatic
   - Grow your savings – Rule of 72. (Note: Rule of 72 indicates how fast money doubles. To determine this rate, divide the time by 72. To determine the length of time, divide the rate by 72.)

Saving vs. spending

mind money ™

Spend or save?

Spend or save? Most of us will likely choose or prefer to spend now and save later. Does it really matter if we spend now and start saving at a later date?

Let's look at two friends who have different goals and saving habits.

Katherine prefers to spend now and save later.

She will start her retirement savings account at age 35. She will make an initial contribution of $2,000, and then continue with **monthly contributions of $200 until age 67**.
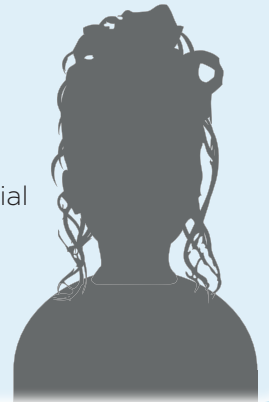
Nadine prefers to save now for her future.

She decides to start her retirement savings plan at age 18. She will make an initial contribution of $100 and continue to make **monthly contributions of $100 until age 67**.

1. How much will Katherine have contributed to her RRSP at age 67?

   _____

   _____

   _____

2. How much will Nadine have contributed to her RRSP at age 67?

   _____

   _____

   _____

3. Who do you think will have the larger amount at age 67? Why?

   _____

   _____

   _____

Spend or save? (cont'd)

4. Calculate how much both savings plans are worth if their investments grew at a rate of 5% compounded annually. Use an online calculator to help you get your answer.

   _____

   _____

   _____

5. What conclusions can you draw regarding investment period and investment value? Specifically, what impact does time have on investment value?

   _____

   _____

   _____

Saving vs. spending

Savings vs. spending quiz

Multiple choice

1. To help meet security and future needs, it is recommended by financial advisors that a person should set aside the following percentage of earned income.
   - **A.** 10%
   - **B.** 15%
   - **C.** 20%
   - **D.** 25%

2. When interest is calculated only on the principal amount of the investment, it is known as
   - **A.** straight interest
   - **B.** simple interest
   - **C.** compound interest
   - **D.** calculated interest

3. To get as much value as possible for your purchase, the wise consumer may consider to
   - **A.** avoid impulse buying
   - **B.** check out warranties
   - **C.** consider buying high quality
   - **D.** all of the above

4. Budgeting has been described as "financial planning for your dreams and wants" because budgeting will
   - **A.** show that you have money
   - **B.** give you a plan to get your money to work for you
   - **C.** get you more money
   - **D.** all of the above

5. Paying your credit card bill just a couple of days after the due date
   - **A.** could affect your credit rating
   - **B.** could result in a higher interest rate
   - **C.** will result in interest being accrued on all purchases
   - **D.** all of the above

6. If you use your credit card to take money out as a cash advance
   - **A.** interest is calculated from when you take out the cash advance
   - **B.** you don't have to pay interest as long as you pay your credit card bill by the due date
   - **C.** the cash advance interest rate is the same or lower than your regular rate
   - **D.** any payment made goes first to paying off your cash advance balance

INVESTOR EDUCATION FUND

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An Ontario Securities Commission initiative