



Lending A Hand

Student Workbook

Challenge your students to understand the world of cooperative banking and micro-lending!

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Acknowledgements:

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LENDING A HAND: STUDENT WORKBOOK

Note to Teachers:

The Student Workbook corresponds to the lessons found in the Teacher Guide. Activities throughout this module are stand alone. Activities can be used together, individually or adapted to a teacher's preference.

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Activity: Barriers to Getting Started



Name: _____

Date: _____

In Canada and around the world people go to financial institutions to get a loan. Credit unions and banks are examples of these financial institutions here in Canada. Wherever a person goes for a loan, they need to prove to the financial institution that they can repay the loan. This is usually done using some variation of the five C.'s of credit.

Your task is to examine the '5 C.'s of Credits' list and determine what would be a good risk for a bank or credit union to take a chance on?

5 C.'s of Credit

Capacity Capacity refers to considering your other debts and expenses when determining your ability to repay the loan. Creditors evaluate your debt-to-income ratio, that is, how much you owe compared to how much you earn. The lower your ratio, the more confident creditors will be in your capacity to repay the money you borrow.

Capital Capital refers to your net worth — the value of your assets minus your liabilities. In simple terms, how much you own (for example, car, real estate, cash, and investments) minus how much you owe.

Character When lenders evaluate character, they look at stability — for example, how long you've lived at your current address, how long you've been in your current job, and whether you have a good record of paying your bills on time and in full. If you want a loan for your business, the lender will consider your experience and track record in your business to evaluate how likely you are to repay.

Collateral Collateral refers to any asset of a borrower (for example, a home or shop) that a lender has a right to take ownership of and use to pay the debt if the borrower is unable to make the loan payments as agreed.

Conditions Lenders consider a number of outside circumstances that may affect the borrower's financial situation and ability to repay, for example what's happening in the local or regional economy. If the borrower is a business, the lender may evaluate the financial health of the borrower's industry, their local market, and the competition.

Activity: Microfinance and Sustainability



Name: _____




Date: _____

Financial institutions are primarily concerned with the economics of a business loan. They are concerned with the financial “bottom line”.

However, many private funders have wider concerns and aspirations when lending money. They ask more questions than just, “Will this loan get repaid?” They ask:

- “Is this project good for the environment?”
- “Is the entrepreneur attempting to minimize the environmental impact of their business activity?” “Will the project improve people lives?”
- “How is the entrepreneur treating other people?”

These lenders are considering a “triple bottom line” – economic, environmental, social.

Environmental 	Social 	Economic 
<ul style="list-style-type: none"> ○ minimize possible environmental side effects ○ promotes a healthy environment for the workers and the broader local community ○ considers the ecological footprint of a project ○ aims to be ecologically sustainable (rather than wasteful and polluting)? 	<ul style="list-style-type: none"> ○ generates more than just profit for one person ○ helps the community grow ○ generates indirect benefits for the local community ○ leads to more employment in the community ○ is a safe and healthy project for the workers ○ does this enhance local culture and traditions? 	<ul style="list-style-type: none"> ○ has economic capacity ○ has economic capital ○ strong personal character indicates stability ○ can offer collateral ○ outside conditions and circumstances are right

This is often called TBL – or Triple Bottom Line accounting. As you research the world of microfinance and prepare to lend money to a person who can change their lives with your help, think of all three of these measures.

Activity: Microfinance Organizations Part 1



Name: _____

Date: _____

There are many organizations that offer microfinance style loans to people around the world. With your small group research the following organizations and choose one that you and your class will actually use to lend money and change lives. Each group in your class will research key microfinance organizations and use the criteria chart to help them decide: Which microfinance organization do we recommend that our class use to help us lend the money we raise?

Note that these are some of the most commonly used sites by school classes (especially Kiva), but there are others. If you find another one that you would like us to feature in our module contact us: [\[insert email address\]](#)

- Kiva <http://www.kiva.org/>
- Plan Canada <http://plancanada.ca/microfinance>
- Finca <http://www.fincacanada.org/>
- Zidisha <https://www.zidisha.org/>
- Lending Loop <https://www.lendingloop.ca/>

Use this chart to help your group decide. Give a score of up to 5 for each criteria for each site and then total the scores to help decide which site is best for your class.

Criteria	Kiva	Plan Canada	Finca	Zidisha	Lending Loop
Works in areas that we want to target 					
Has a good reputation 					
Provides enough economic information 					
Provides enough social information 					
Provides enough environmental information 					
Allows contact with borrowers 					
Offers a variety of services 					

Activity: Microfinance Organizations Part 2



Name: _____

Date: _____

Now that your classroom has chosen which microfinance site to use it is time to choose a particular borrower and see how the system works. Your class is going to lend money to a person you do not know, BUT....

WHO WILL IT BE????
and HOW DO YOU DECIDE???

Microfinance sites are connected to thousands of borrowers. Each one has a profile that helps you become familiar with who they are and why they need the money for their enterprise.

Your Task: In small groups, you will decide which borrower you want your class to support!!! The below questions should help guide you on your journey. Once your group has decided on your borrower, develop a pitch to persuade the class to your decision. Each group will be given 5 minutes to present their pitch.

- To help guide your decision, these questions can be answered when choosing which borrower, you want to support.
 - Is there a particular area of the world you are interested in? 🌍
 - Would you like your borrower to be working in a certain sector (e.g. agriculture, clothing, manufacturing, education, etc.)
 - Do you care whether it is a man or a woman?
 - Is there a particular attribute to the situation that interests you (e.g. fair trade, conflict zone, environmental focus, etc.)?
- Try to imagine what the life of this person is like to help guide your decision. Think of the following:
 - How did you figure out which person to lend to? 👤
 - Think about the different aspects of their life? 🗒️
 - What challenges do they face every day? 😞
 - What is their family like? 👨‍👩‍👧
 - What do they eat? 🍴
 - What holidays does they celebrate? 🎁
 - What would they consider a 'treat' for themselves of their family? 🍷
 - What do you have that they probably do not have? 🚗
 - On the other hand, what do you have in common? 🔄
- Imagine that your group knows details of your chosen person's life and finances. You don't know these people well and a microfinance would not want to put their personal financial information on the Internet for privacy reasons. Your class has learned about global poverty and you can conduct research into the country and region where their borrower lives. As a result, you can imagine some of the expenses they have. This will only be a very rough approximation, but it will give you a sense of how financial institutions have to estimate the reliability of a loan – think of the 5 C.'s of Credit: will your borrower have a good chance of paying the loan back?

This is what you need to know to convince the rest of the class that your borrower is the best to support!



Activity: Microfinance Organizations Part 2 Continues

Rubric for the 5-minute pitch for each student in the class to judge each borrower. Give a score of 1 – 5 (5 being the highest) for each category, then add up the columns and see which borrower is best!

Criteria	Borrower #1	Borrower #2	Borrower #3	Borrower #4
Environmental				
<i>Project examines possible environmental side effects.</i>				
<i>Promotes a healthy environment for the workers and the broader local community.</i>				
<i>Tries to reduce the ecological footprint of this project.</i>				
<i>Is ecologically sustainable (rather than wasteful and polluting).</i>				
Social				
<i>This enterprise will offer more than just profit for one person.</i>				
<i>Will help the community grow.</i>				
<i>Will have indirect benefits for the local community.</i>				
<i>Could lead to more employment in the community.</i>				
<i>Is a safe and healthy project for the workers.</i>				
<i>Enhances local culture and traditions.</i>				
Economic				
<i>Borrower has the capacity to repay the loan.</i>				
<i>Has a sufficient amount of capital.</i>				
<i>Their personal character indicates stability.</i>				
<i>They are able to offer collateral.</i>				
<i>The outside conditions and circumstances are right for this loan.</i>				
<i>They have offered convincing evidence.</i>				
Total =				

Activity: Financial Details



Name: _____
Date: _____

When an individual wants to receive a microfinance loan, they have to go through a step-by-step procedure to obtaining that loan. The different microfinance organizations have some specific differences, but generally these are the steps in your microfinance loan:

1. An individual goes to a microfinance field partner and applies for a loan
2. Their risk profile is studied
3. If approve, their loan request is posted
4. People choose that borrower and the loan is made
5. The loan is aggregated with other small loans
6. Money goes to the field partner who gives the funds to the borrower
7. Borrower uses the money for their purpose and starts to generate income
8. They begin to make regular re-payments which include paying down the principal and the interest
9. The microfinance organization repays the loan to the class

Your Task: Investigate the website of the microfinance organization that your class has chosen and fill in the details for this timeline.

1. What is the interest rate for the loan?
2. What are the repayment terms?
3. How frequently are payments made?

When you have the details, use an online calculator such as the one listed to calculate a picture of the loan and how it works.



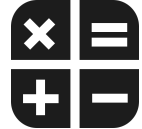
Online Loan Calculator

<http://www.thecalculatorsite.com/finance/calculators/loancalculator.php>
<https://www.vancity.com/Loans/LoanCalculators/>

Activity: Financial Details (Extension 1)

Name: _____

Date: _____



How to Calculate Compound Interest Rates – The Simple Way

Compound interest rates: Interest that is added to the sum of the loan at the beginning of the term. This means that interest is earned on the total sum of the loan with accumulated interest.

Remember when calculating with interest rates: $10\% = 0.10$ (move the decimal place 2 places to the left)

Periods can be Annually (once a year), Semi-Annually (twice a year), Monthly (12x a year)

Let's try to calculate loan amount after a period of time!

Complete the Chart with the following information to determine the loan value at the end of year 2.

- i. Amount of loan at the start: \$ 1000
- ii. Interest Rate: 15%
- iii. Periods: Yearly

Year	Loan at the Start	Interest Amount	Loan at the End
0	Amount of loan at the start	Loan at Start (Year 0) X Interest Rate	Loan at Start + Interest Amount
1	Loan at the End of Year 0	Loan at Start (Year 1) X Interest Rate	Loan at Start (Year 1) + Interest Amount
2	Loan at the End of Year 1	Loan at Start (Year 2) X Interest Rate	Loan at Start (Year 2) + Interest Amount

1. What was the loan value at the end of year 2 from the above chart?
2. Using the same knowledge that you have gained from above, create a new table for the following information to answer questions 3 & 4.
 - i. Amount of loan at the start: \$2500 starting at January 1, 2018
 - ii. Interest Rate: 10%
 - iii. Periods: Monthly
3. What is the loan amount at the end of May 2018?
4. What is the loan amount at the beginning of August 2018?

Advanced Questions:

5. Is there an easier method to calculating the loan at the end of a period using compound interest instead of using the chart? How?
6. How can exponents be incorporated into the formula to further develop it?
7. Use your formulas to answer the question 1-4 again. Did you get the same answer?

Activity: Financial Details (Extension 1 Continues)

How to Calculate Compound Interest Rates – The Equation Way – Answer Key

The following is an Answer Key to the Advanced Questions in the above worksheet.

5. From the chart, you can derive a formula from it.

For example:

Year	Loan at the Start	Interest Amount	Loan at the End
0	1000	$1000 \times 0.10 = 100$	$1000 + 100 = 1100$

a. First, you can see:

Interest rate is 10% which is 0.10

b. When you combine the **Loan at the Start** + **Interest Amount** equations, you are left with the following:

$$1000 + (1000 \times 0.10) = 1100$$

c. Rearrange the formulas:

$$\begin{array}{rcl}
 & \text{Loan at Start} & + \quad \text{Interest Amount} \\
 & 1000 & + \quad 1000 \times 0.10 \\
 \text{Add x 1} & 1000 \times 1 & + \quad 1000 \times 0.10 \\
 \text{Factor 100} & 1000 & \times \quad (1 + 0.10) \\
 \text{Simplify} & 1000 & \times \quad 1.10
 \end{array}$$

d. What is the above telling us?

i. From, rearranging the formula we were able to derive the following:

$$1000 \times 1.10 = \text{Loan at End}$$

ii. From the above we can see the following:

1000 is the **Loan at the Start**

1.10 is the **Interest Amount**

iii. We also know that the **Interest Rate is 0.10** (Recall Step 1).

iv. This means:

$$\text{Interest amount} = 1 + \text{Interest Rate}$$

v. Therefore, the formula is:

$$\text{Loan at Start} \times (1 + \text{Interest Rate}) = \text{Loan at End of Period}$$

Activity: Financial Details (Extension 1 Continues)

6. Advanced Question: How can we use exponents to further develop the formula.

i. We know the following formula:

$$\text{Loan at Start} \times (1 + \text{Interest Rate}) = \text{Loan at End of Period}$$

ii. How can we incorporate periods into the formula without having to calculate for each end of period?

The use of the exponents can be used!!!

iii. The formula we be as follows:

$$\text{Loan at Start} \times (1 + \text{Interest Rate})^{\text{\# of Periods}} = \text{Loan at End of Period}$$

The common formula used is:

$$FV = PV \times (1 + r)^n$$

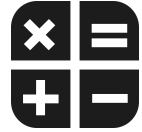
FV = Future Value

PV = Present Value

R = annual interest rate

n= number of periods

Activity: Financial Details (Extension 2)



Name: _____

Date: _____

Interest Rates: Converting percent values to decimals

Interest rate: the percentage of a sum of money charged for its use

When a person borrows money for a bank or organization, they are charged an interest rate on the amount of money they borrow. For instance, if someone borrows \$100, and the interest rate is 10%, the person will be charged \$10 the first year they borrow the money.

1. What does 10% mean???

10 % = 10 **percent**

10 % = 10 **per 100**

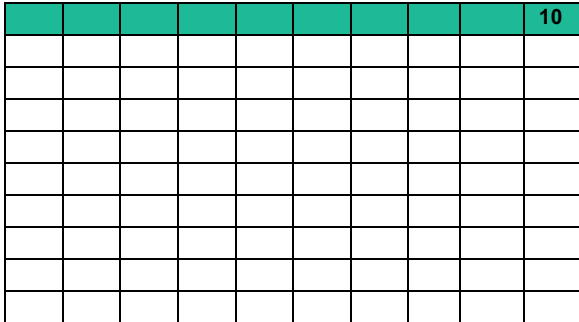
Latin phrase per centum which means per hundred!!!

“Percent” means per 100

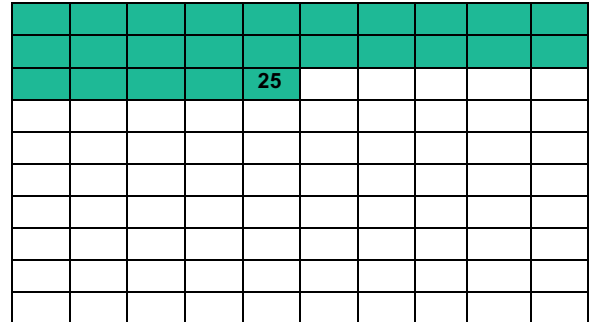
Therefore, 10% means 10/100 and 75% means 75/100

For example:

10% means 10 boxes are green per 100 boxes



25% means 25 boxes are green per 100 boxes



2. How to turn a **percentage to a fraction then to a decimal.**

For example:

Convert 10% to a fraction then to decimal.

10% means 10 per 100

- To turn it into a fraction it is simply $\frac{10}{100}$ Reducing the fraction by 10 results in $\frac{1}{10}$
- From there you can turn the fraction into a decimal

$$\frac{10}{100} \rightarrow 10 \div 100 = 0.10$$

Activity: Financial Details (Extension 2 Continues)

3. You can easily turn a **percentage into a decimal** by moving the decimal place two places to the left and removing the “%” symbol.

$$10\% \rightarrow 0.10$$

a. $10\% = \frac{10}{100} = 0.10$

b. $75\% = \frac{75}{100} = 0.75$

4. To find the **percentage of any number**:

- i. **Convert the percentage to a decimal**
- ii. **Multiply the decimal by the number you are looking at**

For example:

What is 20% of \$250?

- i. Convert the percentage to a decimal

$$20\% \rightarrow 0.20$$

- ii. Multiply the decimal by the number you are looking at

$$0.20 \times 250 = 50$$

???

5. Now try to answer the following questions!!!

- a. What is the interest amount for a loan of \$100 with an interest rate of 30%?

- b. What is the interest amount for a loan of \$100 with an interest rate of 15%?

- c. What is the interest amount for a loan of \$300 with an interest rate of 10%?